



*SRI SARADA COLLEGE OF EDUCATION  
(AUTONOMOUS), SALEM - 16*

*Criteria - II : Teaching Learning and Evaluation*

*KEY INDICATOR : 2.4.COMPETENCY AND SKILL DEVELOPMENT*

*Metric No : 2.4.2. Students go through a set of activities as preparatory to school based practice teaching and internship.Pre-Practice Teaching /Internship encompasses certain significant skills and competencies such as*

*2.4.2. (E) Any other Relevant Information*

*Pre-Practice Teaching /Internship*

**Sri Sarada College of Education (Autonomous), Salem – 636 016**

Re-Accredited with 'A' Grade by NAAC (III Cycle)  
Affiliated to Tamil Nadu Teachers Education University, Chennai

## Formulating learning objectives



SRI SARADA COLLEGE OF EDUCATION (AUTONOMOUS), SALEM - 16

### Formulating Learning Objectives

Name: R.Reshma

Register No: 2021P33

Major: Physical Science

GENERAL OBJECTIVES :

The pupil

- acquires the knowledge about microorganisms
- understand different types of microorganism
- applies the knowledge in daily life to develop scientific temper and scientific attitude
- analyses how viruses show both living and non living characters

SPECIFIC OBJECTIVES :

The pupil

1. Define microorganism
2. Define microbiology
3. What are the five categories of microorganisms
4. Define virus
5. Describe the structure of virus
6. what are the living characters of virus
7. Mention the Non - living characters of virus

Teaching Aids

charts < showing shapes of virus , flash cards < categories of microorganism  
models < Influenza virus , pictures < structure of virus

EVALUATION

Name: S.Subiksha  
 Register No: 2021B46  
 Major: Biological Science

<p>General objectives:          pupils will be able to:          to acquire the knowledge about electric charge          to understand the concept of electric current.          to apply the knowledge in daily life.          to develop the scientific skill and scientific temperament.</p> <p>specific objectives:          pupils will be able to:          Recall about element.          Knows about positive ion and negative ion.          comprehend the electric charge and electric current.          list the type of electric force.          writes the formula for electric charge.          solve the problem.</p> <p>Teaching aid:          real object [comb, scale, paper]          atom model.          Black board for writing formula &amp; SI units.</p>			
Learning outcome motivation says the answer	content living things are made up of cells	teacher-pupil activity Teacher tests the previous knowledge of the student	Evaluation Living things are made up of?

Name: M. Gomathi  
 Register. No: 2021E06  
 Major: English

<p>Presentation</p> <p>a) Model reading by the teacher</p>	<p>learns the proper pronunciation, stress and intonation while reading passage.</p>	<p>The teacher reads the passage aloud with proper pronunciation, stress and intonation.</p>	
<p>b) Introduction of new words</p>	<p>grasps the meaning of the word fables as short stories typically with animals as characters, conveying a moral.          fable - noun</p>	<p>T: what do you love the most from your grandparents?          S: They tell us various stories daily.          T: why do they tell them?          S: Through stories, they teach us values.          T: Good <sup>The short story with a moral</sup> story can also be called fable.</p>	<p>What makes you to love them?          what is the significance of stories?</p>
	<p>Grasps the meaning of the word pulker as lightly gather on</p>	<p>T: can people be the same even after getting old?</p>	

Name: K.M. Preethi  
Register No: 2021T05  
Major: Tamil

கற்பித்தல் பொது நோக்கங்கள்:-  
மாணவர்களுக்கு, சமணர்கள் மற்றும் பௌத்தம் பற்றி அறிந்து கொள்ளுதல்.  
சமணர்கள் மற்றும் பௌத்தம் பற்றி புரிந்து கொள்ளுதல்.  
சமணம் மற்றும் பௌத்தம் சார்ந்த பொதுவான கருத்துகளை பயன்படுத்துதல்.  
சேபல், உருத்தல், உழத்தல் போன்ற பல்வேறு திறன் கருத்துகளை வளர்த்துதல்.

கற்பித்தல் சிறப்பு அளிக்கங்கள்:-  
மாணவர்களுக்கு, மதங்களைப் பற்றி அறிதல்.  
கோவில் விகிதம் போன்ற மதங்களை கற்றுதல்.  
கிறித்தியாவில் நிலவிய மிக சமயங்கள் பற்றி அறிதல்.  
கூண்டம் மற்றும் பௌத்த மதத்தை மக்கள் நாடக காரணம்.  
மகாவீரன் கிளமை, தூவர வளப்பு பற்றி கற்றுதல்.  
சமணத்தின் பரவல், வீழ்ச்சிக்கான காரணமறிதல்.  
பொருத்தக் கருத்து.

கற்பித்தல் குணக்கருவிகள்:-  
விளக்கப் படம்.  
சொடர் அட்டைப் பயன்படுத்துதல்.

# SRI SARADA COLLEGE OF EDUCATION

(AUTONOMOUS)  
SALEM - 636 016.



**B.Ed., Course  
Micro Teaching**

## Bonafide Certificate

Name of the Student Teacher : ..... S. SRINITHI .....

Register Number : ..... 2021P36 .....

Optional Subject : 1 ..... PHYSICAL SCIENCE .....

2 ..... தமிழ் .....

  
Signature of the Student Teacher

  
Signature of the Internal Examiner

  
Signature of the External Examiner

Date : 22.2.2022

Station : SALEM



## MICRO - TEACHING

### INTRODUCTION

Micro-Teaching is one of the recent innovative in teacher Education Program which aims to modify teacher's behaviour according to the specified objectives. A number of innovative ideas have been evolved in recent to improve classroom teaching.

The history of micro teaching dates when 1961 Allen and Rayon doctoral candidates at Stanford university discovered the use of video-tape recorder for teaching in an innovative teacher education program.

### DEFINITION

Micro-Teaching has been defined in different ways by D.W. Allen in 1966. He defined it as "A scale down teaching encounter in class size and class time". He emphasizes that it is real teaching which has been scaled down in class size and time. The number of students, generally from 5 to 10 and the duration of period ranges from 5-20 minutes.

### THE MAIN OBJECTIVES OF MICRO TEACHING

1. To lessen the complexities that exist in micro-teaching classes and to develop confidence in student-teacher with adequate motivation and practice teaching in a

short duration of Time.

2. To identify the deficiencies of student-teacher and to give immediate feedback, to enable them for modifying their teaching behaviour.
3. To encourage researches identify new teaching skills and develop new Teacher training programmes.

### 1. SCALING DOWN

Scaling down done in the following areas:

- \* The class is reduced to 5-6 pupils.
- \* The time is reduced to 5 to 6 minutes.
- \* The size of the content is practised.
- \* Only one teaching skill is practised at a time.

### 2. STIMULATED SITUATIONS

In micro teaching all the aspects of teaching are reduced to an artificial situation which is deliberately created for training purpose, it is 'near real situation', not real situation. The situation created is simplified, safe and controlled. It is not threatening.

### 3. IMMEDIATE FEEDBACK

The immediate knowledge of results are given through the feedback method after micro-teaching is completed. It enables the student-teacher to modify their behaviour according to critique, conference and demonstrate the same in re-teaching the lesson.



#### 4. CONCENTRATION ON ONE SKILL AT A TIME

In this simulated situation, only one Teaching skill is used at one time. so that, the student-teachers can master the skill.

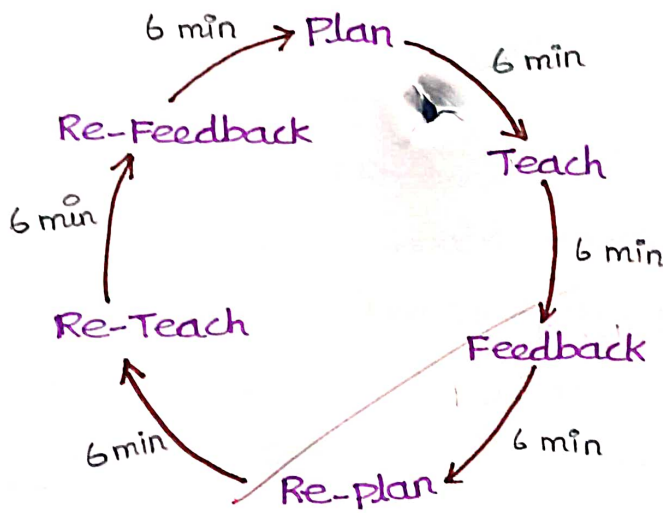
#### 5. PHASED TRAINING

Micro-Teaching is a form of phased training involving in staged development in the form of the micro-teaching cycle.

Starting with the

Plan → Teach → Critique → Replan → Reteach → Recritique

#### MICRO-TEACHING CYCLE



#### STEPS IN MICROTEACHING CYCLE

The steps in microteaching cycle can be listed as under

##### 1) Planning

This involves selection of the skill to be Practised, awareness of the components of the skill, selection of a

suitable concept and the writing of a micro lesson plan.

### ii) Teaching

The Trainee teachers teaches the lesson in the microteaching setting. NCERT has suggested the following setting for micro teaching.

Time : 6 minutes

Number of Students : 5 to 10 ; Real pupils or preferably peers

Supervisor: Teacher educator and /or one or two peers.

The lesson is being observed by the teacher supervisor and/or peers or videotaped or audio taped.

### iii) Feedback

The observer analyse the performance and discuss it with the teacher trainee on the basis of their ratings using the appraisal guide. The feedback should focus on specific behaviour related to the model of the teaching skill. The supervisor can reinforce effective behaviour and draw attention to other behaviour modifications necessary for mastering the skill.

### iv) Replan

In the light of the feedback received from the supervisor and peer observers the teacher trainee replans her micro-lesson by writing another micro-lesson plan or modifying the existing one.

### v) Reteach

The teacher-trainee reteaches the revised lesson to another, but comparable group of students. The supervisor checks to see whether there is any improvement in skill attainment.

### vi) Refeedback

The supervisor assesses the lesson once again and provide the feedback to the trainee. This process repeats till the teacher-trainee acquires the required level of competency.

## SKILL OF INTRODUCING A LESSON

### INTRODUCTION

When one introduces a stranger to you, your reaction towards him (or) your responses during the conversation between the stranger and you depend upon the introductory statement that are uttered about him. Similarly, when a teacher introduces a lesson (or) a unit, in order to predispose pupil's mind to it. Generally an introduction to a lesson includes what the teacher does with (or) without the help of pupil upon the stage of stating the aim of the lesson. The teacher differs in the way they introduce a lesson (or) unit. Studies have shown that the pupil's learning of the new lesson (or) unit largely depends on the way the lesson is introduced.

DESIRABLE BEHAVIOUR	UNDESIRABLE BEHAVIOUR
a) using previous knowledge b) using appropriate device	c) Lacking in continuity d) uttering irrelevant statement and questions.

### DESIRABLE BEHAVIOUR

#### a) USING PREVIOUS KNOWLEDGE

The previous knowledge refers to appropriate appreciate mass of knowledge already possessed by the pupils. They will

be acquiring knowledge from various sources like classroom, friends, books etc...

### b) USING APPROPRIATE DEVICE

Here 'device' refers to 'technique' that the teacher uses while introducing a lesson. such device can be

- a) use of examples / analogies / similarities
- b) questioning
- c) lecturing / describing / narrating / illustrating
- d) story telling
- e) role playing / demonstration,
- f) audio-visual aids,
- g) Experimentation / demonstration.

### UNDESIRABLE BEHAVIOUR

#### c) LACK IN CONTINUITY

continuity refers to the sequence of ideas of information being presented while introducing a lesson. continuity breaks when the statements made (or) questions asked by the teacher are not logically sequenced.

#### d) UTTERING IRRELEVANT STATEMENT OR QUESTION

A statement as a question which a teacher utters while introducing a lesson is said to be irrelevant when it is not related to the aim of the lesson. such statements (or) questions do not contribute to the skill in the term of the affective report with the pupil.

S.NO	DESIRABLE COMPONENTS	S.D	C.S	R.R	B.B
1	Using previous knowledge	<del>III</del> IIII	<del>III</del> II	<del>III</del> I	<del>III</del> I
2	Using appropriate device	III	III	III	II
S.NO	UNDESIRABLE COMPONENTS	S.D	C.S	R.R	B.B
1.	Lack of continuity	-	-	-	-
2.	Uttering irrelevant statement	-	-	-	-

## SKILL OF INTRODUCTION

Class : X

Topic : Scattering of light

Teacher : Good morning students

Student : Good morning mam

Teacher : Have you finished your breakfast?

Student : Yes mam.

Teacher : Have everyone seen the sky and sun? [UPK]

Student : Yes mam. We have seen the sun and sky.

Teacher : What is the colour of the sun? [UPK]

Student : Red colour

Teacher : What is the colour of the sky? [UPK]

Student : Blue colour.

Teacher : Look at that picture. What is this? [UAD]

Student : This is Rainbow

Teacher : How many colours are there in Rainbow? [UPK]

Student : They are seven colours.

Teacher : How to say the seven colours in short form?  
(Or) Acronym. [UPK]

Student : VIBGYOR

- Teacher : 'V' represent which colour? [UPK]
- Student : violet
- Teacher : Which is the first colour in Rainbow? [UPK]
- Student : Red colour
- Teacher : can you say how many colours are visible in Rainbow? [UPK]
- Student : Only very few colours are visible.
- Teacher : can we say the visible colours? [UPK]
- Student : Visible Spectrum
- Teacher : Look at that picture. Did you notice that the size of Balls are increased? [UAD]
- Student : Yes, the size of ~~the~~ Balls are increased.
- Teacher : Let us do some Activity. I have a light. Now I switch it on. You can see the light fall in wall [UAD]
- Student : Yes I saw the light.
- Teacher : can you see the path of light [UPK]
- Student : No, I cannot see the path of light.
- Teacher : I collected the chalk dust. I am going to blow them. what happens? [UAD]



Student : The chalk dust are flew away.

Teacher : Can you see the path of dust ? [UPK]

Student : yes. We can saw the path of the dust .

Teacher : Now in today's class we are going to see about  
"scattering of light".

## SKILL OF EXPLAINING

Skill of Explaining is defined as the act of learning to use interrelated appropriate statements of the teacher for making the pupil to understand the desired concept, phenomenon (or) principles.

### 1. DESIRABLE COMPONENTS

- i) Introducing / Beginning statement
- ii) Link words
- iii) Concluding statement
- iv) Question and Responses

#### i) Introducing / Beginning statement

It should be clearly stated so that the learner comes to know the topic of explanation.

#### ii) Link words

The subject matter should be explained in such a manner that there exists no ~~lacunae~~ rather continuity should be taken care of there; should be proper association between sentences. For this sake, connecting links (or) words like since, that, because, in order to, next, after, before, so, due to, hence, may be used.

iii) Concluding Statement

The main points should be summarised and stated clearly.

iv) Questions and Responses

After the explanation, the teacher ask the questions to the pupil to cover the topic and get response from the pupil.

2. UNDESIRABLE COMPONENTS

- i) Irrelevant statements
- ii) Lacking in continuity
- iii) Inappropriate vocabulary
- iv) Lacking in fluency
- v) Vague words and phrases

i) Irrelevant statements

Statements not related to what is being explained and does not contribute to the understanding of the subject matter explained.

ii) Lacking in continuity

It refers to the break in ideas or information. The following situations like when a statement is not logically related to the previous statement, when a topic is already taught is referred to without showing any relationship to what is being explained, when there is no sequence of space and time, then there is lack in continuity.

iii) Inappropriate vocabulary:

If the technical term used to a particular class or age group are unknown to most of pupil, then it is said to be inappropriate vocabulary.

iv) Lack in fluency

Any half statements and incomplete sentences, repeating and rephrasing sentence contribute this category.

v) Vague words and Phrases

This category will be marked when the teacher uses words and phrases which does not give the correct meaning. Examples are okay, some, many, few, probably, actually, correctly, you see, little etc... and on, so on which form a part of teacher's mannerism.

## DESIRABLE COMPONENTS

Name of the components	C.S	S.D	R.N	R.R	M.G
Beginning statement					
Link words	≡ ≡	≡ ≡ 	≡ ≡	≡ ≡ ≡	≡ ≡
concluding statement					
Questions					
Response					

## UNDESIRABLE COMPONENTS

Name of the components	C.S	S.D	R.N	R.R	M.G
Irrelevant Statement	-	-	-	-	-
Lacking incontinuity	-	-	-	-	-
Inappropriate vocabulary	-	-	-	-	-
Lacking in fluency	-	-	-	-	-
vague words and phrases	-	-	-	-	-

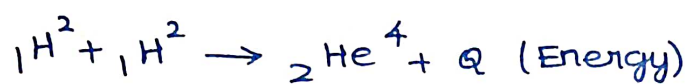
## SKILL OF EXPLAINING

class : X

Topic : Nuclear Fusion

Today we are going to discuss about the topic **nuclear fusion**. It states that two lighter nuclei combine to form a heavier nucleus.

For Example,



Hence  ${}_1\text{H}^2$  represents an isotope of hydrogen known as 'deuterium'. The average energy released in each fusion reaction is about  $3.84 \times 10^{-12}$  J.

If hydrogen represents the parent nucleus and helium represent the daughter nucleus **because** the original nucleus is called parent nucleus and the nucleus remaining **after** decay is called daughter nucleus. Hence the mass of the daughter nucleus is lesser than the sum of the masses of parent nucleus. The difference in mass is called mass defect. **After that** the mass energy equivalence was proposed by Einstein in 1905.

**Due to** mass energy equivalence the mass is converted into energy and vice-versa. Hence the relation between mass and energy equation is  $E = mc^2$ . where  $m$  is the mass

and  $c$  is the velocity of light in vacuum. The value of  $c$  is  $3 \times 10^8$  m/s. Now I say that nuclear fusion reaction is also called "Thermonuclear reaction". So the order of the temperature is  $10^7$  to  $10^9$  K.

For Examples

The Sun and Stars.

The stars like our sun emit a large amount of energy in the form of light and heat. Hence this energy is termed as stellar energy.

Fusion reaction that takes place in the cores of the sun and other stars result in an enormous amount of energy, is called stellar energy. Thus, nuclear fusion or thermonuclear reaction is the source of light and heat energy in the sun and other stars.

Next, the hydrogen bomb is based on the principle of nuclear fusion. The nuclear fusion takes place in the hydrogen core and leads to the release of very large amount of energy in an uncontrolled manner. So, the energy released in a hydrogen bomb is much higher than that released in an atom bomb.

If high temperature are present in the reaction, the pressure will be created because the same charge

of nucleus are closer to each other and they repel to each other. If high pressure are used because to reduce the repulsion between the nucleus.

The Advantages of nuclear fusion reaction is to provide an enormous amount of Energy more than fission reaction. The fusion reaction does not produce the radioactive waste. The nuclear bomb that was dropped in Hiroshima during world war II was called as 'Little boy' because it was a gun type bomb which used as a uranium core. The bomb, which was subsequently dropped over Nagasaki was called a 'Fat man' because it was an explosion type bomb, which used as a platinum core.

The nuclear fusion is the combination of two lighter nuclei. The charge of both nuclei is positive. In order to electrostatic theory, when they come closer they tend to repel each other. Hence the repulsive force will overcome the kinetic energy of the nuclei at higher temperature. Therefore the order of the Temperature is  $10^7$  to  $10^9$  K.

Students today we have seen ~~the~~ about the Nuclear fusion, tomorrow will continue the remaining lesson.



## Questions

1. what is the average energy released in fusion reaction?
2. who proposed mass-energy equivalence theory?
3. what is the example of nuclear fusion?
4. what is the value for velocity of light?
5. what is the order of Temperature in nuclear fusion?

## SKILL OF PROBING QUESTIONS

### Introduction

Questioning skill is an important skill to be developed by any teacher. It is important for all teacher as questioning stimulates the thinking of the students and gets the concepts clarified and hence has a significant contribution to teaching and learning.

Questioning is the major device used in any teaching learning situation. In that pupils respond in a number of ways and styles such as no response, wrong response, partially correct, incomplete response (or) correct response responding depending upon their level, nature of the question and teacher behaviour. The teacher has to manage the response of the students.

### Components of probing questions:

The components of the skill of probing questions are as follows:

- i) Prompting (P)
- ii) Seeking further information (SFI)
- iii) Refocusing (RF)
- iv) Redirection (RD)
- v) Increasing critical Awareness (ICA)

### i) Prompting (P)

This is technique it is going deep into the pupil's initial responses. This technique is employed when the student gives no response to the correct response with a series of hints (or) prompts through step by step questioning process.

### ii) Seeking further Information

This technique involves leading a pupil from partially correct (or) incomplete response to the correct response through questioning. Question that lead students from partially correct incomplete response to the correct question answer.

### iii) Refocussing

This technique is employed when the students give completely correct response. While refocussing the teacher persuades the responding pupils either to relate his response with something already studied by him (or) to consider implications of his response in an able situation. Questions that help the student to view his correct response in a broader perspective. Refocussing through questioning helps the pupil to view the correct response from a different view point (or) a broader.

### iv) Redirection

This technique is generally applied in a no response,

Incomplete response situation and requires putting or redirecting the same question to several pupils for eliciting desired response. Such redirection helps the teacher in the task of probing by prompting or seeking further information with the help of several pupils. For direction the same questions to other pupils.

#### v) Increasing critical Awareness:

It involves putting questions such as 'how' and 'why' to increase the critical awareness of the pupil about the correct response. Thus this technique is followed when the student give correct response situation to increase critical awareness among the pupil. These questions are helpful in asking the responding pupils to justify his response for the purpose of increasing critical awareness in him.

Desirable components	B.B	M.S	S.D	C.S
Prompting		≠	≠	≠
Seeking further information	≠	≠	≠ =	≠
Rejocussing		≠	=	≠
Redirection	=	=	=	≠
Increasing critical awareness	≠	=	≠	=

## SKILL OF PROBING QUESTIONS

class : X

Topic : Radioactivity

Teacher : Good morning students

Student : Good morning mam

Teacher : I will ask you some questions about the topic Radioactivity  
what is Radioactivity? [S.F.I]

Student : The Emission of radiations is called radioactivity.

Teacher : who is the father of Radioactivity? [S.F.I]

Student : .....

Teacher : He is a french physicist and he awarded noble prize in  
Physics for 1903. [P.Q]

Student : Henry Becquerel

Teacher : who detected in radioactivity in 'pitchblende'? [P.Q], [S.F.I]

Student : Marie curie and pierre curie

Teacher : what is meant by pitchblende? [R.Q]

Student 1 : It is an ore of uranium

Teacher : what are the two powerful elements in pitchblende? [R.Q]

Student 2 : polonium

Student 3 : Radium

Teacher : What is the Traditional unit of radioactivity? [S.F.I]

Student : Curie

Teacher : What is the SI unit of Radioactivity? [S.F.I]

Student : Becquerel

Teacher : Define Becquerel? [S.F.I]

Student : Quantity of one disintegration per second.

Teacher : What are the types of radioactivity? [S.F.I]

Student : Two types

1. Natural Radioactivity
2. Artificial Radioactivity

Teacher : How many radioactive substances are discovered?  
[S.F.I]

Student : 29

Teacher : What is natural radioactivity? [S.F.I]

Student : It is spontaneous emission

Teacher : What are the examples of natural radioactivity? [S.F.I]

Student 1 : Uranium

Student 2 : Thorium

Teacher : How do you say uranium and thorium are natural radioactivity? [I.C.A]

Student : They found naturally in earth's crust.

Teacher : What are the rays emitted in natural radioactivity?  
[S.F.I]

Student : Alpha rays, beta rays and gamma rays.

Teacher : What are the difference between alpha, beta and gamma rays. [R.F.Q]

Student : Alpha rays are +ve charge  
Beta rays are -ve charge  
Gamma rays are neutral

Teacher : How do you say Alpha rays are positive charge? [R.F.Q]

Student : Because Helium nucleus contains two protons and two neutrons.

Teacher : which radioactivity exhibit Atomic number more than 83? [S.F.I]

Student : Natural radioactivity.

Teacher : what is the reason? [S.F.I]

Student : They elements are unstable.

Teacher : which rays are used in medicine? [R.Q]

Student : .....

Teacher : which is most dangerous ray? [S.F.I]

Student : Gamma rays

Teacher : which type of isotopes are used in Agriculture? [SFI]

Student : Phosphorous - 15.

Teacher : why Phosphorous isotopes are used in agriculture? [I.C.A]

Student : It helps to increase the productivity of crops.

Teacher : which rays are used for treatment of cancer? [S.F.I]

Student : Gamma rays

Teacher : what is meant by Artificial radioactivity? [S.F.I]

Student : man-made radioactivity or Induced radioactivity.

Teacher : who discovered Artificial radioactivity? [S.F.I]

Student : Irene curie

Teacher : which particles are present in Artificial radioactivity? [S.F.I]



Student : Elementary Particles.

Teacher : What are the elementary particles? [P.Q]

Student : Neutron, positron etc...

Teacher : What is the difference between natural and artificial radioactivity? [R.F.Q]

Student : Natural radioactivity is a spontaneous process while the artificial radioactivity is an induced process.

Teacher : How can you say the natural radioactivity is a spontaneous process? [I.A.C]

Student : Because it emits continuous radiation

Teacher : Which element is most radioactive? [S.F.I]

Student : Polonium

Teacher : What is the symbol for polonium? [S.F.I]

Student : Po

Teacher : Who discovered the polonium? [S.F.I]

Student : Marie Curie

Teacher : When and how did Marie Curie die? [I.C.A]

Student : 4 July 1934, she died due to Anaemia.

## SKILL OF STIMULUS VARIATION

### INTRODUCTION:

As it is necessary for a teacher to explain ask questions, give examples provide encouraging remarks. so, it is important to draw and sustain in the attention of the pupils. For this purpose, the teacher uses hand gesture, head and body movements make certain verbal statements like look carefully, watch what is happening, listen carefully etc... many a times he supplements in order to make it more effective. All these behaviour are related to the skill of stimulus variation.

### COMPONENTS OF THE STIMULUS VARIATION:

1. Movements
2. Gestures
3. change in speech pattern
4. Focussing
5. change in interaction styles
6. pausing
7. oral-visual switching

#### 1. Movements

Study the following three situations. one teacher is teaching from the table without moving away from it.

Another teacher is continuously walking throughout the class while teaching. The third teacher moves in the class but every movement has a purpose, may be to check what pupils at the back are doing (or) to write something on the board (or) to remove boredom (or) to sustain attention of pupils who will be observing the teaching standing near the table for a long time.

## 2. Gestures

The various gestures that you can use in the class, to draw pupils attention are head, hand and body movements. Using such gestures, you will be more expressive and dynamic in your presentation in class. The oral message is **less effective** in conveying meaning than an oral message combined with gestural ones.

## 3. Change in speech pattern

Whenever you want to express emotions (or) feelings; you can modulate your voice. This sudden variation in this stimulus will attract attention of the pupils. Sometimes while reading a lesson, a teacher has to read certain sentences emphasizing anger.

## 4. Focusing

Here you use such behaviours that direct (or) focus pupils attention to a particular point which the pupils have

to observe (or) notice. Such behaviours are include verbal statements, Verbal focusing (or) gestures (or) movements, gestural focusing and both verbal statements and gestures, verbal and gestural focusing.

### 5. change in interaction styles

when two (or) more persons communicate with each other orally, there is said to be oral interaction between them. In a classroom, there can be three style of interaction among pupil and teacher.

- i) Teacher pupils (or) teacher group interaction
- ii) Teacher pupils interaction
- iii) Pupil- Pupil interaction

### 6. Pausing

Pausing means 'introducing silence during talk'.

In the classroom, if you as a teacher are continuously talking (or) asking questions without giving time to pupils to respond pupils lose their attention in the lesson.

### 7. Oral-visual switching

As a teacher generally you will be either telling something to the pupils information through oral medium (or) showing to them through visual medium. But here you are concerned with both drawing and sustaining pupils

attention. Hence, frequent changes help you to sustain  
your attention to what you are conveying.

## DESIRABLE COMPONENTS

Name of the Components	S·D	R·R	M·G	B·B	C·S
Movement	≠				
Gesture	≠ -				
change in speech pattern	≠	≠		≠ -	≠
Focussing	≠ ≠ -	≠	≠		≠
change in Interaction Styles	≠	≠ -		≠	≠ -
Pausing					
Oral-visual switching	≠ -	≠		≠	≠

## SKILL OF STIMULUS VARIATION

class : X

Topic : Newton's universal law  
of gravitation.

Teacher : Good Morning Students

Student : Good Morning mam

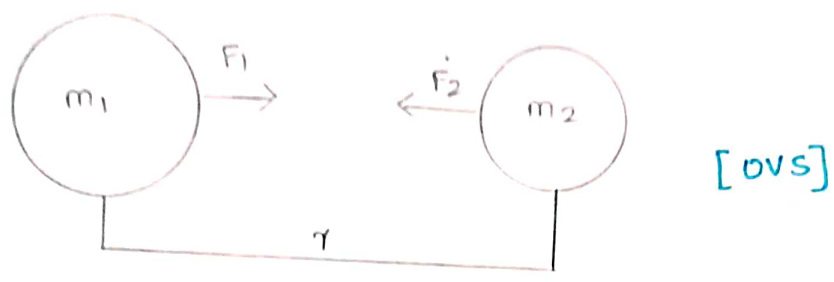
Teacher : Today we are going to discuss about the topic  
Gravitation, what is meant by Gravitation? [M]

Student : Gravitation is a force of Attraction on a body.

Teacher : Listen carefully. For every particle of matter in  
the universe attracts each other particle with  
force. Assume that Earth is the First object  
and Astronaut is the second object. The mass of  
the earth are larger so the gravitational force  
are always larger. The Earth push the second  
object. If the body should have mass, the  
gravitational force always Attractive. [M, G, F, OVS]  
what is meant by gravity? [CIS]

Student : The Force of attraction between all objects that  
have mass.

Teacher : Listen, consider two masses  $m_1$  and  $m_2$  with distance  $r$ .  
[m, F, G]



$$F \propto m_1 \times m_2 \rightarrow \textcircled{1} \quad [F]$$

$$F \propto 1/r^2 \rightarrow \textcircled{2}$$

combining these two equations

$$F \propto \frac{m_1 m_2}{r^2} \quad [F]$$

what does  $m_1, m_2$  and  $r$  denote? [CIS, M]

Student :  $m_1, m_2$  be the masses and  $r$  be the distance.

Teacher : This is an Important question [F, P]

$$F \propto \frac{m_1 m_2}{r^2} \rightarrow \textcircled{3} \quad [CIS, G]$$

The universal law of gravitation states that the force is directly proportional to the product of two masses and Inversely proportional to the square of the distance between them. [M, CSP]

$$F = \frac{G m_1 m_2}{r^2} \rightarrow \textcircled{4} \quad [CIS]$$

$G$  is the universal gravitational constant. Its value in SI unit is  $6.674 \times 10^{-11} \text{ Nm}^2 \text{ kg}^{-2}$ . [CIS, G, M]



Teacher : State universal law of gravitational? [CIS]

Student : The force is directly proportional to the product of masses and Inversely proportional to the square of the distance between them.

Teacher : what is the formula for law of gravitation? [CIS]

Student : 
$$F = \frac{Gm_1m_2}{r^2}$$

Teacher : what is the symbol for universal gravitational constant? [CIS]

Student : 'G'.

Teacher : what is the value for universal law of gravitation? [CIS]

Student :  $6.674 \times 10^{-11} \text{ Nm}^2\text{kg}^{-2}$

Teacher : The Acceleration of a body is due to Earth's gravitation force. This is called Acceleration due to gravity.

Note this formula [F] [M, G]

$$g = \frac{GM}{R^2} \quad [CIS]$$

what is the unit of Acceleration due to gravity? [CIS]

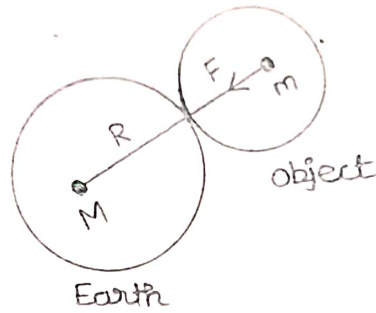
Student :  $\text{ms}^{-2}$

Teacher : what is the value for Acceleration due to gravity? [CIS]

Student :  $9.8 \text{ ms}^{-2}$

Teacher : what is the formula for Acceleration due to gravity?

Student :  $g = GM/R^2$



Listen carefully. The Radius of the Earth is  $R=6400$  km. By Newton's Law of gravitation, the force acting on the body is given by  $[F, M, G]$

$$F = \frac{GMm}{R^2} \rightarrow \textcircled{5} \quad [CIS]$$

State Newton's second law?

Student : The Force acting on a body is given by the product of its masses and Acceleration.

Teacher : what is the formula for Newton's second law of motion?  $[CIS, M]$

Student :  $F=ma$

Teacher : what does 'm' and 'a' denote?  $[CIS]$

Student : m is mass  
A is Acceleration.

Teacher :  $F=ma$

Consider  $\therefore a=g$

Hence,

$$F=mg \rightarrow \textcircled{6}$$

comparing  $\textcircled{5}$  &  $\textcircled{6}$  equation. what we get?  $[CIS, M]$

student :  $\frac{GMm}{R^2} = mg$

teacher : which terms are cancelled in this equation? [M, G, CIS]

student : The term 'm'.

teacher : Finally what we get above this equation? [M, G]

student :  $g = \frac{GM}{R^2}$

teacher : This is the formula for Acceleration due to gravity. This is an Important Formula. Note it. what is the value for radius of earth? [M, F, CIS]

student : R = 6400 Km.

# SKILL OF REINFORCEMENT

## INTRODUCTION:

Reinforcement skill will increase students involvement in their lesson is a number of positive ways. Learning could speed up if the teacher occasionally reinforces. The components of this skill are listed below.

Desirable components	undesirable components
<ol style="list-style-type: none"> <li>1. positive verbal Reinforcement</li> <li>2. positive non-verbal Reinforcement.</li> <li>3. Repeating and Rephrasing</li> <li>4. Extra verbal clues</li> <li>5. writing pupils answers on the black board.</li> </ol>	<ul style="list-style-type: none"> <li>Negative verbal Reinforcement</li> <li>Negative non-verbal Reinforcement</li> <li>Inappropriate use of Reinforcement</li> <li>wrong use of Reinforcement</li> </ul>

## 1. DESIRABLE COMPONENTS:

### i) Positive Verbal Reinforcement

The teacher may give positive verbal reinforcement through various verbal expression like, "Good, Very good, Yes, Right, fine, nice, carry on, keep it up, excellent, etc"....

## ii) Positive Non-Verbal Reinforcement

This skill includes nodding of head (or) smiling (or) moving towards the pupil by the teacher.

## iii) Repeating and Rephrasing

When the pupil gives correct (or) half correct response the teacher could repeat and rephrasing the response.

## iv) Extra verbal clues

Whenever the pupil attempts to give a response, the teacher may say, "Carry on, continue" etc...

## v) Pupil writing Answer on the Black board

When students give correct answer, teacher can write this answer on the black board. This also reinforces the students.

## 2. UNDESIRABLE COMPONENTS

### i) Negative Verbal Reinforcement

This includes the verbal expression like bad, wrong, no, fool etc.

### ii) Negative Non-verbal Reinforcement

This includes frowning, staring, looking, angrily at the pupil and so on.

### iii) Inappropriate use of Reinforcement

This includes Reinforcement in an unsuitable places and not give in suitable place.

### iv) Wrong use of Reinforcement

This includes the situations where there is no appreciating in the correct response.

Desirable components	C.S	. F	M.S	S.D
Positive Verbal Reinforcement	≠ ≠	≠ ≠	≠ ≠	≠ ≠ ≠
Positive Non-Verbal Reinforcement	≠ ≠	≠	≠ ≠	≠ ≠
Repeating and Rephrasing		≠		
Extra Verbal clues	≠			
Writing the Black board	≠			≠

# SKILL OF REINFORCEMENT

class : X

Topic : Gases

Teacher : Good morning students

student : Good morning mam

Teacher : Today we are going to see about the topic Gases.

Student : yes mam

Teacher : Gas is a state of matter that has no fixed shape and no fixed volume.

The Examples are

- air,
- water vapour,
- Helium

Gases are classified as

- i) Real gases
- ii) Ideal gases.

what is meant by gas?

Student : Gas is a state of matter that has no fixed shape and volume.

Teacher : Good. what are the Examples of gases? [PVR, PNVR]

Student : Air, water vapour, helium.

Teacher : How many types are there in gases? [PNVR, EVC, RAR, WPAB]  
Student : Two types.

Teacher : Well done. what are there types? [PVR, PNVR, EVC]  
Student : Real gases and Ideal gases

Teacher : Real gases is defined as there is Intermolecular attraction between the molecules.

Examples :  $O_2, CO_2$

Ideal gases is defined as there is no attraction between the molecules. The ideal gas is otherwise called perfect gas.

what is meant by Real gas? [WPAB]

Student : There is Intermolecular attraction between the molecules.

Teacher : Go a head. what is meant by Ideal gas? [PVR, PNVR, RAR, EVC]  
Student : There is no attraction between the molecules.

Teacher : Fundamental laws of gases

There are three fundamental laws which connect the relation between Pressure, Volume and Temperature.

- i) Boyle's law
- ii) Charles's law
- iii) Avagadro's law

How many types are there in fundamental laws of gases?



Student : There are three types.

Teacher : Excellent. What are these three types? [PVR, PNVR, RAR, WPAB]

Student : Boyle's law  
charle's law  
AVagadro's law

Teacher : For Boyle's law, when Temperature is constant, the volume of gas is inversely proportional to its pressure.

$$P \propto 1/V$$

$$PV = \text{constant}$$

For charle's law, when the pressure is constant, the volume of gas is directly proportional to the Temperature of gas.

$$V \propto T$$

$$V/T = \text{constant}$$

For AVagadro's law states that at constant pressure and Temperature, the volume of a gas is directly proportional to the number of molecules present in it.

$$V \propto n$$

$$V/n = \text{constant}$$

State Boyle's law. [WPAB]

Student : when Temperature is constant, the volume of gas is inversely proportional to its pressure.

Teacher : Good. State Avagadro's law. [PVR, WPAB]

Student : It states that constant Temperature and Pressure, the volume is directly proportional to the number of molecules present in it.

Teacher : Well done. Distinguish between boyle's law and charle's law? [PVR, PNVR, RAR, EVC]

Student :

Boyle's law	charle's law
The Temperature is constant	The pressure is constant
$P \propto 1/V$	$V \propto T$

Teacher : Very good. What is Avagadro number? [PVR, EVC, WPB]

Student : The Avagadro number is  $6.023 \times 10^{23}$  mol

# LINK LESSON

There is a very big contrast between micro teaching and macro teaching (full class teaching). As stated earlier, microteaching is a kind of scaled down process in terms of using teaching skills, content, strength of the class and time duration. Further, while microteaching is practiced under simplified questions conditions, the macro teaching reflects the problems of normal class condition. Hence, bridging the gap between microteaching and macroteaching is essential.

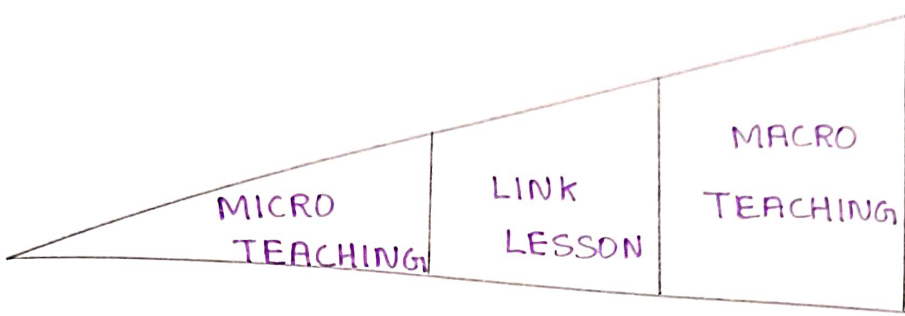
In micro-teaching, teacher trainees are given practice in each skill separately. After practicing all the skills, they have to use the different skills in an integrated manner.

For this purpose, the link lesson practise is essential.

Link lesson practice is the term used to bridge the gap between microteaching and macroteaching. It normally involves the integration of the skills.

The link practice lessons are normally arranged with about the students and for about 20 minutes. The trainee's prepare a link lesson on a single topic using the appropriate skills particular to the content.

The diagram showing the different stages of the teaching practise.



S.NO	Particulars	Micro Teaching	Link Lesson	Macro Teaching
1	Time	5 to 10 mins	20 to 25 mins	40 to 45 mins
2	class-size	5 to 10 Students	20 to 25 Students	40 and above Students
3	No. of skills	1 skill	3 to 4 skills	All the skills
4	No. of Concepts	one	two (or) three	Many

In the Link practice, trainees give or gain sufficient control over the use of the components of the skills particular to the topic. At the end of the Link practice, the trainee should have a review with the supervisor, this will help the trainee to handle the lesson in micro situations effectively further, components of some of the important micro skills, model for writing episodes for micro-teaching, plan of action for micro teaching session and its importance are discussed.

## LINK LESSON

class : IX

Topic : Motion

Teacher : Good morning students

Student : Good morning mam

Teacher : Have you all finished your breakfast ?

Student : Yes mam

Teacher : what are the objects do you seen in the classroom and in the outdoor environment? [UPK]

Student : Books, Tables, Black board, car, walls of the room, buses, birds, Trees etc...

Teacher : which ~~objects~~ do not change their position? [UPK]

Student : Trees, Black board, walls of the room.

Teacher : which objects do change their position? [UPK]

Student : car, buses, birds.

Teacher : what do we say the objects to change their position with time? [UPK, G]

Student : motion

Teacher : Very good. Today we are going to discuss about the topic motion. [PVR, M, BS]

Student : Yes mam

Teacher : Motion is defined as moving bodies changes as their position with time.

Motion can be classified into two types

- i) uniform motion
- ii) Non-Uniform motion

What are the two types of motion? [M, G, CIS, CSP]

Student : uniform motion and Non-uniform motion.

Teacher : Good. The uniform motion is defined as the objects is in uniform motion it covers equal distances in equal intervals of time.

For Example : Suppose a car covers 60 km in first hour, another 60 km in second hour and again 60 km in third hour. So the motion of the car is uniform.

Listen carefully. An object is said to be in non-uniform motion it covers unequal distances in equal intervals of time. For Example, consider a bus it travel merely 100 m in 5 minutes due to heavy traffic when it gets out and the road is clear, it speeds up and is able to travel about 2 km in 5 minutes.

What is meant by uniform motion? [CSP, F, G, EVC]

Student : The object covers equal distances in equal intervals of Time.

Teacher : The motion can be classified into [PVR, PNVR, G]

- i) Linear motion
- ii) Circular motion
- iii) Oscillatory motion
- iv) Random motion

what is meant by linear motion?

Student : The object moves along a straight line.

Teacher : Very good. Give one examples of linear motion? [PVR, LW]

Student : Falling coconut.

Teacher : why do we say falling coconut is an example of linear motion? [ICA, CSP, CIS, P]

Student : Because it moves a straight line.

Teacher : The object moves along a circular path is called circular motion. For example : wind mill [LW, G, P]

In oscillatory motion, the object describes a repetitive to and fro movement retracing its original path.

For Example : pendulum of clock. [G, CSP, LW]

The motion whose direction changes continuously is called **Random motion**.

For example : The motion of football players on the field. Define oscillatory motion? [G, CSP, LW]

Student : The object moves in a way comes and goes from a fixed point.

Teacher : Give one example of oscillatory motion? [PNVR, G, EVC]

Student 1: swim

Student 2: pendulum of clock

Teacher : The distance travelled in a unit time is called speed. It is a scalar quantity. Its SI unit is m/s. Velocity is the displacement in unit time. It is a vector quantity. Its SI unit is m/s. [G, P, CSP]

what are the difference between speed and velocity? [R]

Student :

Speed	Velocity
i) It is the rate of change of distance.	It is the rate of change of displacement.
ii) It is a scalar quantity	It is a vector quantity
iii) Its SI unit is $ms^{-1}$	Its SI unit is $ms^{-1}$

Teacher : Well done. what do we say speed is a scalar quantity?

Student : Because it does not need a direction of motion, it only needs magnitude. [PVR, ICA, G]

Teacher : what is magnitude? [SFI, CIS]

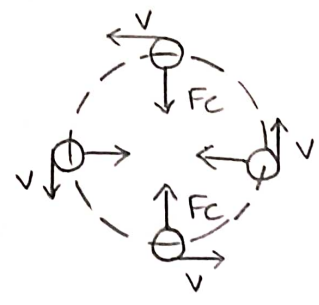
Student : The distance and magnitude along with size and speeds of an object.

Teacher : A centrifugal force is a net force that acts on an object to keep it moving along a circular path. [PVR]



For Example : The motion of a stone in circular path with constant speed and continuous changes of direction in an Accelerated motion. (The string directed inwards, which makes the stones to move in circular path)

[LW, G, OVS, CIS]



centripetal force

consider the object of mass m, moving along a circular path of radius r, with a velocity v, its centripetal Acceleration is

$$a = \frac{v^2}{r}$$

The magnitude of centripetal force is given by

$$F = m \times a$$
$$= m \times \frac{v^2}{r}$$

$$F = \frac{mv^2}{r}$$

The Force acting on a body away from the centre of circular path is called centrifugal force.

Example: A bike making a turn, vehicle driving around a curve, washing machine. [G, LW, P, CSP]

Define centripetal force?

student : A centripetal force is a net force it acts on an object to keep moving along a circular path. (This is an inward force).

Teacher : what is the difference between centripetal and centrifugal force ? [R, PNVR, WPAB]

student :

centripetal force	centrifugal force
It is a real force	It is the pseudo force
It acts from particle towards the centre.	It acts from centre to particle.
Inward force	outward force

Teacher : Good. Today we are seen about the topic motion. Tomorrow will continue remaining lesson. [PVR, CS]

CONCLUSION:

In Micro-teaching the student teacher concentrated on practising a specific well defined teaching skill which included a set of related teaching behaviour. It is the most safest technique for a student-teacher to handle a gap with small number of pupils.

Micro-teaching is a methodology that provides the opportunity to share knowledge, ideas, experience with peers. It is a valuable experience because it is not the same to teach a lesson to teenagers then do it with a group of teachers. It helps to improve self confidence, to implement new techniques and to practice the teaching process. The studies conducted in India indicates that micro-teaching is an effective technique in modifying the student-teacher's behaviour.

22/2/2022

# Sri Sarada College of Education, Salem - 16.

## STUDENT TEACHING PROFILE

Date: 5-09-20

Name of Student Teacher : U. Gomathi  
 Name of Co-operating School : Sri Ramakrishna Sarada Hr. Sec. School  
 Name of Supervisor : Ms. Syamala

Standard : XI - B  
 Period : 1  
 Subject / Topic : English - The Portrait of a Lady

WEIGHTAGE	ASPECTS	RATINGS					
5	<b>I. LESSON PLAN :</b> (1) Instructional Objectives (1. Appropriateness 2. Attainability 3. Adequacy 4. Clarity)	Not at all correct 0 1	Seldom correct 2 3	Usually correct 4 5	Mostly correct 6 7	Fully correct 8	25
5	(2) Content : Concepts/Facts/Principles, Terms, Etc., (1. Adequacy 2. Organization 3. Effectiveness 4. Relevance 5. Richness)	Not at all correct 0 1	Seldom correct 2 3	Usually correct 4 5	Mostly correct 6 7	Fully correct 8	30
5	(3-A) Learning Activities : (1. Appropriateness 2. Adequacy 3. Accuracy 4. Originality 5. Variety)	Very poor 0 1	Fair 2 3	Satisfactory 4 5	Good 6 7	Excellent 8	30
5	(3-B) Learning Aids : (1. Appropriateness 2. Originality)	Not at all relevant 0 1	Seldom relevant 2 3	Usually relevant 4 5	Mostly relevant 6 7	Completely relevant 8	25
5	(4) Review : Evaluation / Assignments (1. Overall coverage 2. Appropriateness 3. Accuracy)	Very poor 0 1	Fair 2 3	Satisfactory 4 5	Good 6 7	Excellent 8	30
10	<b>II. TEACHING LEARNING SITUATION :</b> (1) Introduction : (1. Relevance 2. Sufficiency 3. Interest Aroused)	Not at all relevant 0 1	Seldom relevant 2 3	Usually relevant 4 5	Mostly relevant 6 7	Completely relevant 8	80
10	(2) Learning Experiences : (Pupil Participation)	Very poor 0 1	Fair 2 3	Satisfactory 4 5	Good 6 7	Excellent 8	70
10	(3) Techniques : (1. Effectiveness 2. Relevance 3. Originality)	Not at all effective 0 1	Some what effective 2 3	Usually effective 4 5	Mostly effective 6 7	Always effective 8	80
5	(4) Use of Aids : (1. Effectiveness 2. Black board work)	Not at all effective 0 1	Some what effective 2 3	Usually effective 4 5	Mostly effective 6 7	Always effective 8	30
5	(5) Review and Evaluation : (Effectiveness)	Very poor 0 1	Fair 2 3	Satisfactory 4 5	Good 6 7	Excellent 8	35
15	(6) Development of Lesson : (1. Sustained pupil interest and continued pupil participation 2. Attainment of objectives 3. Accuracy of content 4. Sequential and Logical 5. Budgeting of Time)	Not at all correct 0 1	Seldom correct 2 3	Usually correct 4 5	Mostly correct 6 7	Fully correct 8	120
5	(7) Teacher - Pupil Co-operation (1. Interaction 2. Sympathy 3. Enthusiasm)	Never 0 1	Seldom 2 3	Occasionally 4 5	Frequently 6 7	Always 8	35
5	<b>III. TEACHER</b> (1) Appearance, Manners and Movement . (1. Neat 2. Language 3. Controlled)	Poor 0 1	Fair 2 3	Very Fair 4 5	Fine 6 7	Excellent 8	40
5	(2) Communication (1. Expression 2. Language 3. Speech 4. Voice)	Poor 0 1	Fair 2 3	Very Fair 4 5	Fine 6 7	Excellent 8	40
5	(3) Class Management (Effective dealing of situations)	Poor 0 1	Fair 2 3	Very Fair 4 5	Fine 6 7	Excellent 8	40
<b>IV FINAL MARKS BASED ON I, II &amp; III</b> 88.75							710

*P. Syamala*  
Signature of Supervisor

## LESSON PLAN FOR PROSE

Name of the Student Teacher : M. Gomathi  
Name of the Mentor : Mrs. Shyamala  
Name of the School : Sri Ramakrishna Sarada Hr. Sec. School  
Class : XI  
Subject : English  
Topic : The Portrait of a Lady.  
Duration : 45 minutes  
Date :

## General instructional objectives :

The pupil

- comprehends simple English when spoken.
- speaks correct English.
- reads English passage aloud with correct pronunciation, stress and intonation.
- reads silently with proper comprehension.
- writes well-structured paragraphs without any grammar mistakes.
- recognises the underlying grammar item.
- enhances his / her vocabulary power.

## Specific instructional objectives :

The pupil

- identifies the synonyms of the new words.

- uses the above words in their own sentences.
- locates the important facts and ideas of the lesson.
- understands the bond between the author and his grandmother.
- realizes the importance of grandparents in a family.
- knows the value of any relationship.
- sympathizes with the grandmother and her situation.

### Teaching aids :

- i) Flash cards for new words with images
- ii) Mind map
- iii) Picture showing a grandmother and a grandson.

Steps	Learning outcomes / Specification	Learning experiences	Evaluation
<p>Motivation</p>	<p>The pupil appreciates their bond between their grandparents and appreciates the love of the author's grandmother</p>	<p>The teacher motivates the children by asking the following questions.</p> <p>T: Good morning students.</p> <p>S: Good morning mam.</p> <p>T: Have you had your breakfast?</p> <p>S: Yes mam.</p> <p>T: What did you eat?</p> <p>S<sub>1</sub>: Dosa</p> <p>S<sub>2</sub>: Idly</p> <p>T: Good. who <del>did</del> prepared it?</p>	<p>who does prepare your breakfast?</p>



S<sub>1</sub>: My mom looked  
mam.

S<sub>2</sub>: My grandmother  
prepared it.

T: Do you live in a  
joint family?

S: Yes mam.

T: That's good.  
What do you all  
do after school  
at home?

S<sub>1</sub>: I go walking  
with my grandfather.

S<sub>2</sub>: My grandmother  
takes me to the  
park.

T: Do you all love  
your grandparents?

What will you  
do at home?

Do you love your  
grandparents?

## Presentation

a) Model reading by the teacher

learns the proper pronunciation, stress and intonation while reading passage.

S : Yes mam, I love them.

T : Okay Students.

As you all share a good bond with your grandparents, here in this lesson, we will see a relationship between a grandmother and the author.

The teacher reads the passage aloud with proper pronunciation, stress and intonation in a regular voice.

new words

grasps the meaning  
of the word fables  
as short stories  
typically with animals  
as characters,  
conveying a moral.

fable - noun

grasps the meaning  
of the word pukker  
as lightly gather on

T: What do you  
love the most  
from your  
grandparents?

S: They tell us various  
stories daily.

T: Why do they tell  
them?

S: Through stories,  
they teach us  
values.

T: Good. The short  
story **with a moral at the end**  
can also  
be called fable.

T: Can people be  
the same even  
after getting **old**?

What makes you  
to love them?

What is the  
significance of  
stories?

Contrast into wrinkles on small folds.

Wrinkle - verb, noun

S: No mam, it's not possible.

T: What are the changes <sup>that</sup> take place when someone gets old?

S: Their physique gets weakened, they get grey hair and their skin gets wrinkled.

T: Good. Wrinkle means wrinkles.

List out the changes occur in old age.

Construct a simple sentence using the words

Explanation of the lesson

The pupil comprehends the lesson through interaction and draws mind map.

The narrator here describes about his grandmother with whom he shares a good bond in his

31) Reading program

Pupil's loud reading

Silent reading

Comprehension  
questions

learns loud reading

learns silent reading

Village and he gets  
overwhelmed by her  
unconditional love.

Read the passage  
aloud one after  
another.

Read the passage  
silently and answer  
the questions:

1. He wore a big  
turban and loose  
fitting clothes. His

1. Describe the  
grandfather as seen  
in the portrait?

iii) Recapitulation

recalls the facts  
learned in the units.

Pupils answer the  
review questions.

1. What was the  
people's opinion

3. It is hung above  
the marketplace.

3. Where do they have  
grandfather's portrait?

While board covered  
the best part of his  
chest and he looked  
at least a hundred  
years old.

2. The author's  
grandmother has always  
been stout and fat and  
slightly bent. Her face  
was a mass - mass of  
wrinkles running all  
over it.

2. Describe the  
author's grandmother?



## LESSON PLAN FOR GRAMMAR

Name of the Student Teacher : M. Gomathi  
Name of the Mentor : Mrs. Syamala  
Name of the school : Sri Ramakrishna Sarada Hr. Sec. School,  
Salem  
Class : XI - B  
Subject : English Grammar  
Topic : Tense  
Duration : 45 minutes.



General instructional objectives :

The pupil

- acquires knowledge and develop understanding of using tenses in communication.
- recognises the new teaching item.
- applies the newly learnt grammar item in the language use.

Specific instructional objectives :

The pupil

- uses it in different meaningful situations.
- understands the kinds of tense.
- identifies the usage of each kind in language.
- learns the rules of each kind and uses them in meaningful way.

## Teaching aids :

- Real life object - clock
- Chart showing the definition and rules of tense.

Step	Specification	Learning Experience	Evaluation
i) Motivation	<p>The pupil recognises the importance of tense in life.</p> <p>Knows the definition of tense.</p>	<p>The teacher motivates the pupils by asking the following questions.</p> <p>T : Which object can you see on the wall?</p> <p>S : clock is there on the wall.</p> <p>T : For what reason, we are using it?</p> <p>S : It shows us time so we are having it.</p> <p>T : Well. In English, which terminology refers to time?</p> <p>S : Tense mam.</p> <p>T : Good. Can you tell me what is tense?</p> <p>S : I don't know mam.</p> <p>T : Okay, let's learn together</p>	<p>Why do we use a clock?</p> <p>What is tense?</p>

ii) Presentation

a) classroom situation.

pupil grasps the meaning and usage of tense through the classroom.

about tense in today's class.

T: A tense is a form of the verb that allows you to express time.

T: What did you do yesterday?

S: I prepared for the test mam.

T: What are you doing now?

S: I am listening mam.

T: What will you do in the next period?

S: I have a test and will write it mam.

What is the role of tense in life?

learns the kinds  
of tense.

b) Real life  
situation

T : Well. Tell me the verbs  
in all sentences.

S<sub>1</sub> : Prepared

S<sub>2</sub> : listening

S<sub>3</sub> : will write.

T : Are they all denoting  
the same time of the  
actions?

S : No mam.

T : Well. Tense has three  
forms like present,  
past and future.

We can find out the  
time of an action with  
the help of the verb.

T : Have you completed  
the homework?

What are the kinds  
of tense?

it yesterday itself.

T: Good. Past tense shows the action which took place in the past.

The structure of past tense is usually

Verb + ed

For example: He cooked

For irregular verb, it does not come with 'ed'

For example: They went there.

T: Can you give two examples for these two forms?

SI: The baby laughed

SS: My brother came to home last week.

T: What do you do now?

Give examples for past tense.

learns the structure of present tense.

S: I write in the notebook.

T: well. It is in the present tense which shows the action that is taking place currently.

For example: I teach them.

For third person singular (He, she, it) we must add 's' to the verb like

He plays in the ground.

T: Can you give me an example?

S: I listen in the class

S: I speak to him.

T: Good. What will you do in the weekends?

S: My cousins will come on weekends and we will spend time together.

T: That's nice. The future

What is the structure of present Tense?

### iii) Review

Pupils recall the meaning and structure of the kinds of tenses.

Tense shows the action which will occur in the future.

The structure for this kind is will/shall + verb

I will score well in the exam.

- a. drew
- b. broke
- c. drank
- d. fought
- e. left

Answer the following:

1. Give me the past form for the following words.
  - a. draw
  - b. break
  - c. drink
  - d. fight
  - e. leave

### iv) Follow up

Pupil writes down the sentences in each tense.

The teacher gives homework to be done at home.

1. Construct five sentences in present



tense

2. Construct five sentences in past tense.

3. Construct five sentences in future tense.

Fill in the blanks :

1. He — not want to go to the movies.  
a. does b. do c. is

2. Do you — chocolate?  
a. likes b. like  
c. liking.

M. Gromatti  
Signature of the  
Guide Teacher

D. Syamal  
Signature of the  
Guide Teacher

Name : B. Benasir

School : Government Girls higher secondary school, salem.

class : IX-std.

subject : science.

Topic : Electric charge and Electric current.

unit : 4<sup>th</sup> unit.

Duration : 45 minutes.

Date :

General objectives:

pupils will be able to:

To acquire the knowledge about electric charge

To understand the concept of Electric current.

To apply the knowledge in daily life.

To develop the scientific skill and scientific temperament.

Specific objectives:

pupils will be able to:

Recall about element.

Knows about positive ion and negative ion.

Comprehend the electric charge and electric current.

List the type of electric force.

Writes the formula for electric charge.

Solve the problem.

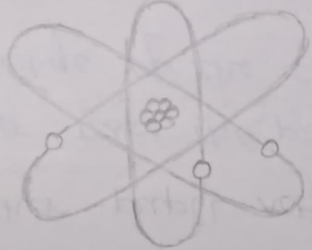
Teaching aid:

Real object [comb, scale, paper]

atom model.

Black Board For writing Formula & SI units.

Learning outcome.	content	teacher - pupil Activity	Evaluation
<p>Motivation: says the answer</p>	<p>Living things are made up of cells</p>	<p>Teacher Tests the previous knowledge of the student</p>	<p>Living Things are made up of?</p>
<p>says the answer</p>	<p>non-living things are made up of Elements or compound.</p>	<p>Teacher Tests the previous knowledge of the students</p>	<p>Non-living things are made up of.</p>
<p>Tells about element.</p>	<p>Element is a pure substance made up of only one kind of atom.</p>	<p>Teacher Tests the previous knowledge of the students</p>	<p>what is mean by element.</p>
<p>Tells about atom made up of.</p>	<p>Element is made up of atom → atoms are made up of proton, neutron &amp; Electron.</p>	<p>Teacher Tests the previous knowledge of the students.</p>	<p>what is Atom is made up of?</p>

Learning outcome	content	Teacher - pupil Activity	Evaluation
Mentions the charge of electron, proton & neutron.	proton $\rightarrow$ positively charged. neutron $\rightarrow$ uncharged. Electron $\rightarrow$ negatively charged.	Teacher Tests the previous knowledge of the student.  Teacher arrives the topic on the Black Board. "Electric charge & Electric current"	mention the charge of electron, proton and neutron?  -
define atom,	Inside each atom, there is a nucleus with +ve charged proton and -ve charged nelectron orbiting the nucleus.		Define atom.

Learning outcome	Content	Teacher - pupil activity	Evaluation.
Says about positive ion.	<p>If an electron is removed from the atom, the atom became positively charged. Then it is called positive ion.</p>	<p>Teacher explain about positive ion to the student.</p>	<p>What is positive ion?</p>
Tells about negative ion.	<p>If an electron is added to the atom, the atom became negatively charged. Then it is called negative ion.</p>	<p>Teacher describe about negative ion to the student.</p>	<p>What is negative ion?</p>
Observes the static electricity.	<p>Step-1: scatter the small piece of paper on the table. Step-2: Now, rub the scale or comb against your hair</p>	<p>Teacher instruct the student to doing the activity.</p>	<p>How can static electricity we observed using a comb &amp; scale?</p>

Learning outcome	content	Teacher-pupil activity	Evaluation.
<p>says the Reason.</p>	<p>immediately bring it over the paper piece. In this step, the comb attracts the paper pieces from the surface.</p> <p>Initially the comb or scale is electrically neutral, so, it has no effect on the tiny pieces of paper. When the comb is rubbed on the hair it gets electrically charged.</p>	<p>Teacher explain the reason to the student.</p>	<p>How does a comb get electrically charged.</p>
<p>Defines electric charge.</p>	<p>Electric charge is the physical property of matter that causes it to experience</p>	<p>Teacher explain the Electric charge to the student.</p>	<p>Define Electric charge.</p>

learning outcome	content	teacher - pupil activity	Evaluation.
<p>says the SI unit of electric charge.</p>	<p>a force when placed in an electromagnetic field.</p> <p>Electric charge is measured in coulomb and the symbol is <math>C</math></p> $q = ne.$ <p>where <math>n =</math> whole number</p>	<p>Teacher explain the SI unit of electric charge to the student with the help of black Board.</p>	<p>say the SI unit of Electric charge.</p>
<p>says the answer.</p> <p>solves the problem.</p>	<p>Electric charge is additive in nature. The total charge is a algebraic sum of all the charges in the system.</p> <p>The net charge on the</p>	<p>Teacher explain the concept of calculating the total electric charge to the student.</p> <p>Teacher ask to solve</p>	<p>How to calculate total electric charge?</p> <p>solve the problem If <math>+5C</math> and <math>-2C</math> is a two charges</p>



Learning outcome.	Content	Teacher - pupil activity	Evaluation
	<p>the system is,</p> $(+5C) + (-2C) = +3C.$	<p>the problem to the student.</p>	<p>of the system, calculate the net charge?</p>
<p>states electric force.</p>	<p>The force existing between the charges is called electric force.</p>	<p>Teacher explain the electric force to the student.</p>	<p>state electric force.</p>
<p>Tells the types of electric forces.</p>	<p>There are two types of electric force (F): one is attractive and another one is repulsive.</p>	<p>Teacher describes the types of electric force to the student.</p> <p>like charges Repel</p>	<p>what are the two types of Electric force?</p>
<p>differentiates like &amp; unlike charge.</p>	<p>The like charges repels each other and the unlike charges attracts each other.</p>	<p>← ⊕ ⊕ →</p> <p>← ⊖ ⊖ →</p> <p>unlike - attract.</p> <p>⊕ → ← ⊖</p>	<p>Differentiate like &amp; unlike charges</p>

Learning outcome	Content	Teacher - pupil activity	Evaluation.
<p>Tells about electric field.</p> <p>says the answer.</p> <p>Defines electric lines of force.</p>	<p>The region in which charge experiences electric forces form the 'electric field' around the charge.</p> <p><math>E</math> is represented by lines and arrowhead indicating the direction of Electric field</p> <p>The Electric lines of force are straight or curved path along which a unit positive charge tends to move in the electric field.</p>	<p>Teacher describe the electric field to the student.</p> <div data-bbox="1079 464 1591 683" data-label="Image"> </div> <p>Teacher explain the electric lines of force to the student.</p>	<p>what is Electric field?</p> <p>which thing indicating the direction of Electric field.</p> <p>define Electric lines of force.</p>

Learning outcome	Content	Teacher - pupil activity	Evaluation.
<p>says the direction of charge experience a force.</p>	<p>A positive charge will experience force in the direction of electric field.</p>	<p>Teacher explain the direction of charge to the student</p>	<p>How positive charge will experience a force?</p>
<p>says the direction of charge that experience a force.</p>	<p>A negative charge will experience in the opposite direction of electric field.</p>	<p>teacher explain the direction of charge to the student.</p>	<p>In which direction negative charge will experience a force.</p>
<p>Defines Electric potential.</p>	<p>Electric potential is a measure of the work done on unit positive charge to bring it to that point against all electric forces.</p>	<p>Teacher Explain electric potential with the help of good example to the student.</p>	<p>Define Electric potential.</p>

Learning outcome.	Content	Teacher - pupil activity	Evaluation
<p>Recapitulation:</p> <p>Defines electric charge.</p>	<p>It is a physical property of matter that causes charged to experience a force when placed in Electric magnetic field.</p>	<p>Teacher Test the understanding level of the student.</p>	<p>Define electric charge.</p>
<p>Tells the SI unit of electric charge</p>	<p>The SI unit of electric charge is coulomb.</p>	<p>Teacher Tests the understanding level of the student</p>	<p>Tell the SI unit of electric charge.</p>
<p>Defines electric lines of force</p>	<p>The electric lines of Force are straight or curved path along which a unit positive charge placed at that point.</p>	<p>Teacher Tests the understanding level of the student.</p>	<p>Define Electric lines of force.</p>

Learning outcome.	Content.	Teacher - pupil activity.	Evaluation
<p>states electric potential.</p> <p>Mentions the type of electric force.</p>	<p>Electric potential is a measure of the work done on unit positive charge to bring it to that point against all electric forces.</p> <p>Two types of forces:            attractive - unlike charge            Repulsive - like charge.</p>	<p>Teacher Tests the understanding level of the student.</p> <p>Teacher Tests the understanding level of the student.</p>	<p>State electric potential</p> <p>Mention the types of electric forces.</p>
<p>Home assignment:</p> <p>Define atom.</p> <p>Tell the charge of one electron.</p>			

3) solve the problem: How many electron will be there in one coulomb of charge.

4) Define Electric force.

5) State Electric field.

6) Match the following.

•  $\mu\text{C}$  [micro coulomb] =  $10^{-12} \text{ C}$

•  $\text{nC}$  [nano coulomb] =  $10^{-6} \text{ C}$

•  $\text{pC}$  [pico coulomb] =  $10^{-9} \text{ C}$ .

Signature of the Teacher  
Educator.

B. Benasir.  
Signature of the  
Student Teacher.

# Sri Sarada College of Education, Salem - 16.

## STUDENT TEACHING PROFILE

Date :

Name of Student Teacher : S. SUBHIKSHA

Standard : VIII

Name of Co-operating School : SRI RAMAKRISHNA Hr. Sec. School

Period :

Name of Supervisor : Mrs. Renuka

Subject / Topic : SCIENCE

WEIGHTAGE	ASPECTS	RATINGS									
		Not at all correct	Seldom correct	Usually correct	Mostly correct	Fully correct					
		0	1	2	3	4	5	6	7	8	
5	<b>I. LESSON PLAN :</b> <b>(1) Instructional Objectives</b> (1. Appropriateness 2. Attainability 3. Adequacy 4. Clarity)	0	1	2	3	4	5	6	7	8	20
5	<b>(2) Content : Concepts/Facts/Principles, Terms, Etc.,</b> (1. Adequacy 2. Organization 3. Effectiveness 4. Relevance 5. Richness)	0	1	2	3	4	5	6	7	8	20
5	<b>(3-A) Learning Activities :</b> (1. Appropriateness 2. Adequacy 3. Accuracy 4. Originality 5. Variety)	0	1	2	3	4	5	6	7	8	20
5	<b>(3-B) Learning Aids :</b> (1. Appropriateness 2. Originality)	0	1	2	3	4	5	6	7	8	20
5	<b>(4) Review : Evaluation / Assignments</b> (1. Overall coverage 2. Appropriateness 3. Accuracy)	0	1	2	3	4	5	6	7	8	20
10	<b>II. TEACHING LEARNING SITUATION :</b> <b>(1) Introduction :</b> (1. Relevance 2. Sufficiency 3. Interest Aroused)	0	1	2	3	4	5	6	7	8	20
10	<b>(2) Learning Experiences :</b> (Pupil Participation)	0	1	2	3	4	5	6	7	8	20
10	<b>(3) Techniques :</b> (1. Effectiveness 2. Relevance 3. Originality)	0	1	2	3	4	5	6	7	8	20
5	<b>(4) Use of Aids :</b> (1. Effectiveness 2. Black board work)	0	1	2	3	4	5	6	7	8	20
5	<b>(5) Review and Evaluation :</b> (Effectiveness)	0	1	2	3	4	5	6	7	8	20
15	<b>(6) Development of Lesson :</b> (1. Sustained pupil interest and continued pupil participation 2. Attainment of objectives 3. Accuracy of content 4. Sequential and Logical 5. Budgeting of Time)	0	1	2	3	4	5	6	7	8	20
5	<b>(7) Teacher - Pupil Co-operation</b> (1. Interaction 2. Sympathy 3. Enthusiasm)	0	1	2	3	4	5	6	7	8	20
5	<b>III. TEACHER</b> <b>(1) Appearance, Manners and Movement :</b> (1. Neat 2. Language 3. Controlled)	0	1	2	3	4	5	6	7	8	20
5	<b>(2) Communication</b> (1. Expression 2. Language 3. Speech 4. Voice)	0	1	2	3	4	5	6	7	8	20
5	<b>(3) Class Management</b> (Effective dealing of situations)	0	1	2	3	4	5	6	7	8	20

### IV FINAL MARKS BASED ON I, II & III

# LESSON PLAN

NAME OF THE STUDENT TEACHER : S. SUBHAKSHI  
NAME OF THE SCHOOL : SRI RAMAKRISHNA HR. SEC. SCHOOL  
CLASS : VIII  
SUBJECT : SCIENCE  
TOPIC : Microorganism  
DURATION : 45 mins  
DATE :



GENERAL OBJECTIVES :

The pupil

- retrieves the knowledge about microorganisms
- understand different types of microorganism
- applies the knowledge in daily life to develop scientific temper and scientific attitude
- analyses how viruses show both living and non living characters

SPECIFIC OBJECTIVES :

The pupil

1. Define microorganism
2. Define microbiology
3. What are the five categories of microorganisms
4. Define virus
5. Describe the structure of virus
6. What are the living characters of virus
1. Mention the Non-living characters of virus

Teaching Aids

- charts & showing shapes of virus
- models & Influenza viruses
- Flash cards & categories of microorganism
- Pluruses & structure of virus

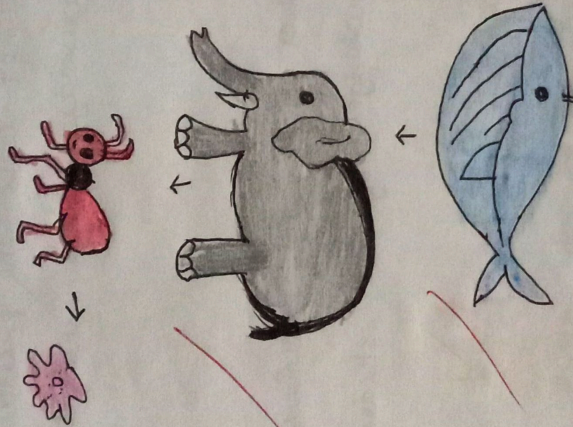
CONTENT

TEACHER STUDENT ACTIVITY

EVALUATION

why aids  
 charts & showing shapes of virus  
 models & Influenza Virus  
 flash cards & categories of microorganisms  
 pictures & structure of virus

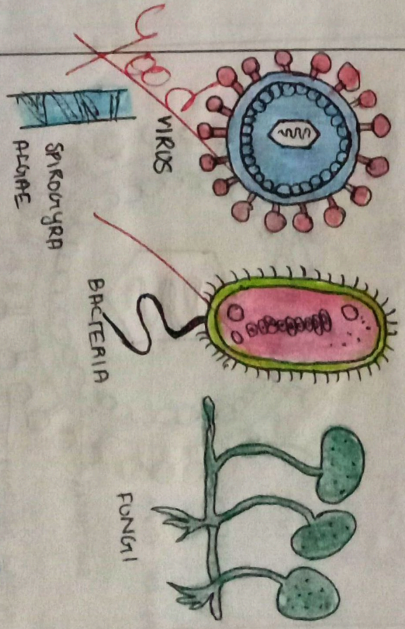
LEARNING OUTCOME	CONTENT	TEACHER STUDENT ACTIVITY	EVALUATION
<p>Tells why we should wash our hands before eating</p> <p>says whether it is possible to see them with our eyes</p> <p>says how can we see these organisms</p>	<p>Washing</p> <p>We should wash hands before eating because there are many germs in our hands they are small in size that they cannot be seen through naked eyes.</p> <p>These microorganisms can be seen only with the help of a microscope.</p> <p>PRESENTATION</p>	<p>Teacher tests the previous knowledge of the students</p> <p>Teacher tests the previous knowledge of the students</p> <p>Teacher tests the previous knowledge of the students</p> <p>Teacher writes the topic "Microorganisms" on the blackboard</p>	<p>Tell why we should wash our hands before eating</p> <p>say we whether it is possible to see them with our eyes</p> <p>say how can we see those organisms</p>

LEARNING OUTCOME	CONTENT	TEACHER STUDENT ACTIVITY	EVALUATION
<p>Defines microorganisms</p>	<p>Microorganisms are very small in size that they cannot be seen through naked eyes. They can be seen only with the help of microscope. Therefore they are also known as microbes.</p>	<p>Teacher shows some pictures in which animals are shown in decreasing order of size.</p> 	<p>Define microorganisms</p>
<p>Defines microbiology</p>	<p>The science that deals with the study of microorganisms is known as microbiology</p>	<p>Teacher explains the content with the help of oral communication</p>	<p>Define microbiology</p>

The study of microorganisms is known as microbiology

with the help of oral communication

LEARNING OUTCOME	CONTENT	TEACHER STUDENT ACTIVITY	EVALUATION
<p>Students where do microorganisms live</p>	<p>Microorganisms are found everywhere. They are found in air, water (ponds, lakes, rivers and oceans), soil and even inside our bodies.</p>	<p>Teacher explains the content with the help of oral communication. Teacher uses blackboard to write the terms "air", "water", "river", "pond", "lakes", "oceans".</p>	<p>Mention in microorganism</p>
<p>List out different types of microorganisms</p>	<p>Microorganisms can be studied under five categories. They are virus, bacteria, fungi, algae, protozoa.</p>	<p>Teacher shows charts to understand a different types of microorganism &amp; different types of Microorganisms</p>	<p>List out of microorganism</p>
<p>Define Virus</p>	<p>A virus is a tiny particle made up of genetic material and protein.</p>	<p>Teacher shows virus model to students.</p>	<p>Define Virus</p>





APPRAISAL OUTCOME

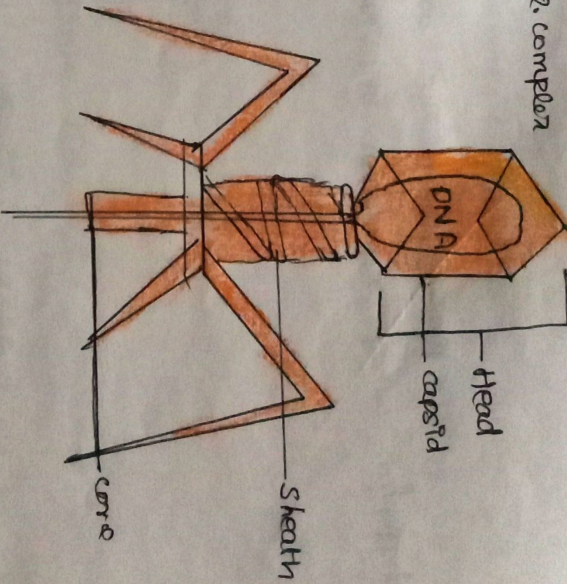
CONTENT

TEACHER STUDENT ACTIVITIES

PERIODS



BACTERIOPHAGE (COMPLEX)

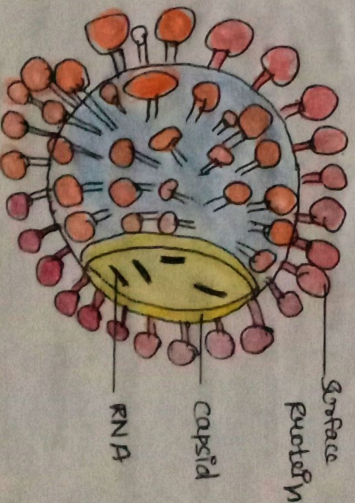


2. complex

INFLUENZA

SPHERICAL

3. Spherical



LEARNING OUTCOMES	CONTENT	TEACHER STUDENT ACTIVITY	EVALUATION
<p>Mentions the characteristics of virus</p> <p>Asks what are the living characters of virus</p>	<p>Viruses show both living and non living characters.</p> <p>Living characters</p> <ul style="list-style-type: none"> <li>• They respond to heat, chemicals and radiations.</li> <li>• They reproduce inside the host cells producing copies of themselves</li> </ul> <p>Non living characters</p> <ul style="list-style-type: none"> <li>• They are inactive when present freely in the environment.</li> <li>• They can be crystallized and stored for a very long time, like other non-living things</li> </ul>	<p>Teacher explains the content within the help of oral communication.</p> <p>Teacher uses the blackboard to write the terms "living characters" and "non living characters".</p> <p>Teacher explains the content with the help of oral communication</p>	<p>Mention the characteristics of virus</p> <p>What are the living characters of virus</p>
<p>Mentions the non living characters of virus.</p>	<p>Non living characters</p> <ul style="list-style-type: none"> <li>• They are inactive when present freely in the environment.</li> <li>• They can be crystallized and stored for a very long time, like other non-living things</li> </ul>	<p>Teacher writes the term 'crystallized' on the black board.</p>	<p>Mention the non-living characters of virus</p>
LEARNING OUTCOME	CONTENT	TEACHER STUDENT ACTIVITY	EVALUATION
Recapitulation		Teacher tests the students under	Before class

\* They can be encapsulated and stored for a very long time, like these non-living things.

DEFINITION	COURSE	CONTENT	TEACHER	STUDENT	ACTIVITY	EXPERIMENT
Defines microorganisms		Recapitulation Microorganisms are very small in size that they cannot be seen through our naked eyes. They can be seen only under the microscope.		Teacher tests the students understanding capacity by asking questions.		Define microorganisms
Defines microbiology		The science that deals with the study of microorganisms is known as microbiology.		Teacher tests the students understanding capacity by asking questions.		Define microbiology
Defines viruses		A virus is a tiny particle made up of genetic material and protein.		Teacher tests the students understanding capacity by asking questions.		Define viruses
Lists out different types of microorganisms		Microorganisms can be studied under five categories: They are viruses, bacteria, fungi, algae, protozoa.		Teacher tests the students understanding capacity by asking questions.		List out different types of microorganisms.

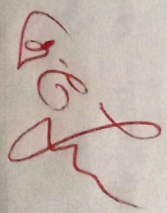


LEARNING OUTCOME	CONTENT	TEACHER STUDENT ACTIVITY	EVALUATION
Define the term Virus	A Virus is a tiny particle made up of genetic material and protein	Teacher tests the students understanding capacity by asking questions	Define the term virus

HOME ASSIGNMENT :

1. Draw and neatly label the parts of structure of Bacteriophage Virus, Influenza Virus.
2. Prepare a model of Virus
3. Define the term Virus
4. Mention the characteristics of virus
5. Write assignment on the Topic Virus

Signature of Teacher



Signature of guide  
Jadhav

# பாடத்திட்டம்

மொண்டல ஆசிரியர் வயல் : க.சி.வி.தீதி

சார்சியன் வயல் : அரா மகன் சிவசக்திசைலம் பள்ளி, காமேஸ்வரன்

வகுப்பு : 11 சவீ வகுப்பு

வாடல் : தழி

நாலயி : சைசந்தழிர் காவா

தொல் : 40 நிமிடங்கள்

தொல் : 26.10.22

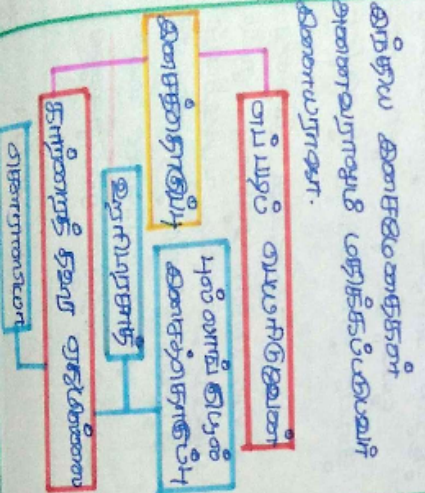






சான்றிதழ் உரைநடப்புதல்	பாடப் பொருள்	உள்ளடக்கப் பொருள்	பொருள்
<p>கிளைநடப்புதல்</p> <p>அறிவுறுத்தல்</p> <p>கிளைநடப்புதல்</p> <p>கிளைநடப்புதல்</p>	<p>அனைத்துக்கூடும் பட்டினம் அனைத்து</p> <p>பாடல் உரைநடப்புதல்</p> <p>கிளைநடப்புதல்</p> <p>அனைத்துக்கூடும் பட்டினம் அனைத்து</p> <p>கிளைநடப்புதல்</p> <p>அனைத்துக்கூடும் பட்டினம் அனைத்து</p>	<p>அனைத்துக்கூடும் பட்டினம் அனைத்து</p> <p>பாடல் உரைநடப்புதல்</p> <p>கிளைநடப்புதல்</p> <p>அனைத்துக்கூடும் பட்டினம் அனைத்து</p> <p>கிளைநடப்புதல்</p> <p>அனைத்துக்கூடும் பட்டினம் அனைத்து</p>	<p>கிளைநடப்புதல்</p> <p>அனைத்துக்கூடும் பட்டினம் அனைத்து</p> <p>கிளைநடப்புதல்</p> <p>அனைத்துக்கூடும் பட்டினம் அனைத்து</p> <p>கிளைநடப்புதல்</p> <p>அனைத்துக்கூடும் பட்டினம் அனைத்து</p>

<p>சுற்றுலா அமைச்சர்கள்</p>	<p>பாடல்களின்</p>	<p>அரசியல் மாண்புமிகு</p>	<p>பேரறிஞர்</p>
<p>அமைச்சர்கள் அமைச்சர் சிறப்பிப்பதை அறிந்தல்</p>	<p>1970-80 களில் எல்லாம் இராசினிப் புதிர் இலக்கிதகாணம் சீக்கிரம் மாற்றும்படி அமைச்சர்கள் அமைச்சர் சிறப்பிப்பதை அறிந்தல் மாண்புமிகு அமைச்சர் சிறப்பிப்பதை அறிந்தல் அமைச்சர் சிறப்பிப்பதை அறிந்தல் அமைச்சர் சிறப்பிப்பதை அறிந்தல்</p>	<p>அமைச்சர் சிறப்பிப்பதை அறிந்தல் அமைச்சர் சிறப்பிப்பதை அறிந்தல் அமைச்சர் சிறப்பிப்பதை அறிந்தல் அமைச்சர் சிறப்பிப்பதை அறிந்தல் அமைச்சர் சிறப்பிப்பதை அறிந்தல் அமைச்சர் சிறப்பிப்பதை அறிந்தல்</p>	<p>அமைச்சர் சிறப்பிப்பதை அறிந்தல் அமைச்சர் சிறப்பிப்பதை அறிந்தல் அமைச்சர் சிறப்பிப்பதை அறிந்தல் அமைச்சர் சிறப்பிப்பதை அறிந்தல் அமைச்சர் சிறப்பிப்பதை அறிந்தல் அமைச்சர் சிறப்பிப்பதை அறிந்தல்</p>



அமைச்சர் சிறப்பிப்பதை அறிந்தல்  
அமைச்சர் சிறப்பிப்பதை அறிந்தல்  
அமைச்சர் சிறப்பிப்பதை அறிந்தல்  
அமைச்சர் சிறப்பிப்பதை அறிந்தல்

அமைச்சர் சிறப்பிப்பதை அறிந்தல்  
அமைச்சர் சிறப்பிப்பதை அறிந்தல்  
அமைச்சர் சிறப்பிப்பதை அறிந்தல்  
அமைச்சர் சிறப்பிப்பதை அறிந்தல்





<p>நன்றி மலர் உரைநாயகர்</p>	<p>பாடல்களின்</p>	<p>அவசியம் மொழியின் விசுவாசம்</p>	<p>மேலே</p>
<p>இணையதளம் உலகமாதிரி அழகம் — சிற்பம் அழகம்</p>	<p>புதிதான புதிதான புதிதான புதிதான புதிதான புதிதான — புதிதான புதிதான புதிதான</p>	<p>மொழியின் மொழியின் மொழியின் மொழியின் — மொழியின் மொழியின்</p>	<p>இணையதளம் இணையதளம் இணையதளம் — இணையதளம் இணையதளம்</p>

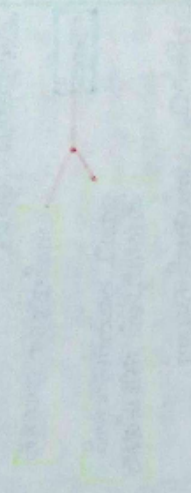
<p>சுற்றுநகல் அமைப்புகள்</p>	<p>அமைப்பதற்கான அவசியமான அளவுகள்</p>
<p>பாடல்பொருள்</p>	<p>அமைப்பதற்கான அமைப்புகளை பாடல்பொருள், சுற்றுநகல் அமைப்புகள் அமைப்பதற்கான அளவுகள், அமைப்புகள் அமைப்பதற்கான அளவுகள், அமைப்புகள் அமைப்பதற்கான அளவுகள், அமைப்புகள்</p>
<p>அமைப்பதற்கான அளவுகள்</p>	<p>அமைப்பதற்கான அளவுகள், அமைப்புகள் அமைப்பதற்கான அளவுகள், அமைப்புகள் அமைப்பதற்கான அளவுகள், அமைப்புகள்</p>
<p>பாடல்பொருள்</p>	<p>அமைப்பதற்கான அளவுகள், அமைப்புகள் அமைப்பதற்கான அளவுகள், அமைப்புகள் அமைப்பதற்கான அளவுகள், அமைப்புகள்</p>

**பேர்யார்வை**

1. சூலிபெய்தி சுரை வாயிளாள் வாசினா ?
2. அழைப்பவராகா சூலித் தொழில் வாழ்த்திப் படித்ததை அறிவிக்கலாமா ?
3. அழைப்பவராகா வலையில் அமைந்திருக்கிற அனைத்து மரங்களும் காய்க்க
4. நிறைபெறாத சூலித் தொழில் அனைத்துக்கூடலென்று யார் ?
5. சூலிமரங்கள் வாழ்பவர்களுக்கு வாழ்த்து வாழ்த்து வாழ்த்து ?

**பெரியார்வை**

1. அழைப்பவராகா அழைப்பவர்களை அழைக்காமல் தடுத்தால்
2. அழைப்பவராகா அழைப்பவர்களை அழைக்காமல் தடுத்தால்



**செல்வா**  
அழைப்பவர்களை  
அழைக்காமல் தடுத்தால்


**செல்வா**  
அழைப்பவர்களை  
அழைக்காமல் தடுத்தால்

**K.M.S**  
அழைப்பவர்களை  
அழைக்காமல் தடுத்தால்

# Identifying varied student abilities

பயிற்சி ஆசிரியையின் விபரம்

DETAILS OF THE STUDENT TEACHER

1. Name சுயர்	DHARANI. P
2. Roll No சுயர் எண்	2021M17
3. Optional Subject கூடுதல் பாடம்	MATHEMATICS
4. Name of the Teaching practice school with Address சுயர். முகவரி	Government Girls Higher Secondary school, Sendamangalam, Namakkal.
5. Date of submission of the Record பதிவேட்டை சமர்ப்பித்த நாள்	21.01.2023
6. Signature of the Student மாணவரின் கையொப்பம்	

சான்றிதழ் / CERTIFICATE

இந்த ஆய்வுத்தரள் என்னால் மதிப்பீடு செய்யப்பட்டு எனச் சான்றளிக்கிறேன்.

Certified that this Record Note Book was valued by me.

வரிசெய்யாளரின் கையொப்பம்

Signature of the Internal Examiner

நாள் / Date : 21.01.2023

  
21/01/2023

பேரறிவுறுத்தல் துறை அமைச்சு, தமிழ்நாடு

PERSONAL DATA SHEET OF THE SCHOOL STUDENT

Name of the Student பெயர் பெயர்	N. Nithiya
Age (Date of Birth) வயது (பிறப்பு தேதி)	14 [ 31.07.2009 ]
Sex பாலினம்	Female
School பள்ளி	Government Girls Higher Secondary School, Sendamangalam, Namakkal
Class குழு	IX
Name of the Father பிதாவின் பெயர்	R. Naveenbabu
Age வயது	39
Educational Qualification படிப்பறிவு	ITI
Occupation பிழைப்பு	Auto driver
Monthly Income மாத வருமானம்	40,000
Name of the Mother அம்மாவின் பெயர்	N. Indhumathi
Age வயது	32
Educational Qualification படிப்பறிவு	10th
Occupation பிழைப்பு	Tailoring
Monthly Income மாத வருமானம்	30,000
Number of Children குழந்தைகளின் எண்ணிக்கை	2

## II வி: 64 அடிப் HOME CONDITION

<p>1) Father's Attitude            (Kindly, Sympathetic, Dominating, Democratic etc.)</p>	<p>Democratic</p>
<p>2) Mother's Attitude            (Rejection, Overprotection, Indifference etc.)</p>	<p>over protection</p>
<p>3) Pupil's ambition</p>	<p>Doctor</p>
<p>4) Parent's ambition regarding the Pupil</p>	<p>Doctor</p>
<p>5) Educational and Vocational attainment of others in the family, influencing the Pupil's level of aspiration</p>	<p>Money influencing Problem</p>
<p>6) Economic Status of Home</p>	<p>Low in Economic Status</p>
<p>7) Position of the student in the Family            Elder Brothers (Number and Age)            Elder Sister (Number and Age)            Younger Brothers (Number and Age)            Younger Sisters (Number and Age)</p>	<p>Elder sister, 14            -            -            Younger sister 1, 9</p>
<p>Note: If pupil is living with his guardian, it may be indicated</p>	

<p>8) Inter-relationship between brothers and sister சகோதர, சகோதரிகளுக்கிடையே உள்ள பரஸ்பர உறவு (போட்டி, நேசம், கூட்டுறவு, சண்டை, புறக்கணிப்பு) (Rivalry, affection, co-operation, quarrels, indifference, etc... Attitude towards Brothers and sisters (சகோதர, சகோதரிகளின் பாலுள்ள மனப்பான்மை)</p>	Affection
<p>9) Facilities வசதிகள் (Sleep, Play, Reading, Recreation etc...) (தூங்க, விளையாட, படிக்க, பொழுது போக்க)</p>	All facilities
<p>10) Parents' Control பெற்றோர் கட்டுப்பாடு (Lax, repressive, Cruel, Just Sensible, etc...) (கட்டுப்பாட்டில்லை, அடக்கி ஒடுக்கக் கூடியவர், கொடுமையானோர், உணர்வுடையவர்)</p>	Lax
<p>11) Home duties and Responsibilities வீட்டுக் கடமைகளும், பொறுப்புகளும்</p>	Yes
<p>12) Nature of Friends நண்பர்களின் தன்மை</p>	Good
III கல்விக் கூறுகள் / EDUCATIONAL FACTORS	
<p>1) Is he/she is studying in a class appropriate to their age? மாணவர / மாணவி தன் வயதுக்கேற்ற வகுப்பில் பயின்று வருகின்றாரா?</p>	Yes
<p>2) Has he/she failed in any class before? இதற்கு முன் ஏதேனும் ஒரு வகுப்பில் தவறியவரா?</p>	NO
<p>3) Subjects in which he/she is having special aptitudes தனிப்பற்றி கொண்டுள்ள பாடங்கள்</p>	science
<p>4) His/her favourite subject அனுகூலமான பாடம்</p>	science
<p>5) Subjects in which he/she is having difficulties கடினமாகத் தேன்றும் பாடம்</p>	mathematics
<p>6) Possible reasons for such difficulties கடினத்துத்திற்கான காரணங்கள்</p>	Lack of concentration and interest.
<p>7) Attitude to School பள்ளியைப் பற்றிய மனப்பான்மை</p>	Bad
<p>8) Attitude to Teacher ஆசிரியரைப் பற்றிய மனப்பான்மை</p>	Good, controller
<p>9) Attitude to Classmates வகுப்பு மாணவர்களின் பற்றிய மனப்பான்மை</p>	Fine
<p>10) Rank in Class வகுப்பில் தர வரிசை</p>	20, 25

<p>11) Regularity of Attendance வருகையில் காலை தவறாமல்</p>		92%
<p>IV உடற் கூறுகள் / PHYSICAL FACTORS</p>		
1) Are Height and Weight normal for his/her age? வயதிற்கேற்ற உயரமும் எடையும் உள்ளவா ?		Yes
2) Attitude of parents towards child's health குழந்தையின் நலம் பற்றிய பெற்றோரின் மனப்பான்மை		Healthy
3) Any childhood diseases or accidents குழந்தை பருவத்தில் உண்டான நோய் அல்லது விபத்து		NO
4) Any sensory or motor defect ? புணர்/இயக்க குறைபாடு உள்ளதா ?		NO
5) Any sensory or Motor Defect ? பயம் சார்ந்த எதிர் விளைவுகள் ஏதேனுமுண்டா ?		NO
<p>V ஆளுமைக் கூறுகள் / PERSONALITY FACTORS</p>		
1) Sociability தோழமைப் பண்பு (Withdrawn, Shy, Secretive, Social, Pushing, Quarrelsome, etc...) (விசைகிறக்கிற, வெட்கவுணர்வுடைய, பேசாதிருக்கிற, தோழமைப் பண்புடைய, முனைப்பற்றனுடைய, சண்டையிடுகிற...)		Social and shy
2) Emotionality (Repressed, Tense, Fussy, Over Sensitive, Restless, Distractable Over Active, Calm, Impatient, Balanced, etc...) (அடக்கி ஒடுக்கியவர், முறைப்பான, பரபரப்பான, அதிக உயர்ச்சியுடைய, கவனமில்லாத, கவனச்சிறுனுடைய செயல் வரம்பு கடந்த, அமைதியான, பொறுமையற்ற சமநிலையுடைய...)		Distractable, Over sensitive
3) Attitude of Self தன்னைப் பற்றிய மனப்பான்மை (Inferiority, Dependent, Self-confident, Frustrated, Superiority etc...) (தாழ்வு மனப்பான்மையுடைய, சார்புமையுடைய, தன்னம்பிக்கையுடைய, எண்ணக்கூறையுடைய உயர்வுடைய...)		Inferiority
4) Bad habits, if any பீய பழக்கங்கள் (நசம் கடிந்தல், இதுகை பழக்கம், தீக்குதல், தீண்டுதல் போன்றவை)		Impatient



VI வநறியிறல் நடத்தைக்கான குறிகள்  
SYMPTOMS OF MALADJUSTMENT

- 1) (Identification, Regression, Introversion, Projection etc....)  
ஒன்றியோதல், தாழ்வுறுதல், உள்ளீநோக்குச்சிந்தனை புறத்தெறிவு.....

Depressed and  
low concentration  
level in classroom  
while teaching

REPORT :

- 1) Problem of Pupil / மாணவரின் பிரச்சனை
- 2) Diagnosis by Trainee / பயிற்சியாளரால் கண்டறியப்பட்ட காரணங்கள்
- 3) Advice & guidance given / அறிவுரை மற்றும் வழிக்காட்டுதல்
- 4) Result / தீர்வு

## PROBLEM OF PUPIL:

The student-teacher identified that the subject has some problem in concentrating her studies. As she is new to the school, she felt very difficult to adopt to the school environment and remains isolated. The subject is very shy in nature and has inferiority complex.

## DIAGNOSIS BY TRAINEE:

The student-teacher noticed the abnormal behaviour of the subject, when she is taking class. Sometimes, the subject is very much depressed and she may also cry in the classroom. The subject takes leave for school frequently. Even she is compelled by her parents to go to school, she is not interested in studies and remains isolated. With the help of the information

given by the subject's parents, she is a good learner in her previous school and a good achiever in sports too.

The student-teacher observes her frequently whether the subject is listening the class or she loses her concentration. The student-teacher also noticed that the subject is not interested to listen the class and she tries to escape from the class by asking restroom at frequent.

The student-teacher asks about her behaviour towards her classmates. The students said that if they voluntarily talk to the subject, she is not interested in talking to them. The subject has no attachment with her classmates.

## ADVICE AND GUIDANCE GIVEN:

The student-teacher started to give guidance to the subject by speaking friendly to the subject. The student-teacher asked about the subject's goal and understands the family situation of the subject. The subject's parents are daily wages. The student-teacher understands due to the money influencing problem, the subject's parents have migrated from their native place to the present area. So they changed the subject to this school.

### General advice to the subject:

The student-teacher initially talked to the subject for 5 minutes regularly during interval breaks. The student-teacher motivated the subject to have hope in

Present life. The student-teacher understands the subject's interest, hobbies, etc... She trained her in which she is interested to bring the confidence in the subject's mind. The subject is very interested in painting. So the student-teacher gave instruction to draw mindmaps, pictures related to the school academics.

Involving the subject in Group Activities:

The next step taken by the student-teacher is to make the subject be co-operative with her classmates. The student-teacher gave some group activities mainly concentrating the subject whether she is co-operating or not. The student-teacher motivated the students especially the subject to

involve in more activities.

### Guidance given to the subject:

The student-teacher spoke to the subject about her ambition in her life. The subject's aim is to become a good doctor. The student-teacher told the positive ways of achieving her ambition in life. The student-teacher advised the subject to do the activities with full interest, which helps the subject to achieve the goal.

### Motivates the subject :

The student-teacher identified that the subject is interested in painting, throw ball along with studies. So, the student-teacher motivated the subject to manage the time and

asked the subject to involve herself with those activities. Even though the environment is changed, the nature of the subject should not be changed.

Regain the confidence of the subject:

The student-teacher answered for the doubts asked by the subject. The student-teacher insisted that 'unity is strength', so be have good friends around the subject. The subject tries to involve in activities neglecting her inferiority complex and shyness. The subject showed her interest in painting the pictures related to her studies and involved in group activities.

## Result :

After some days, the student-teacher noticed the desirable changes from the subject. The subject involved herself in sports as well as in drawing academic related pictures, etc... The subject also showed interest in studies. She attended all the classes. The subject attended the school regularly and she scored good marks in her examination too. The student-teacher received good information about the subject from her friends' circle. If the teacher asks questions to the subject, she is bold to answer those questions posed on her. The subject is happy to listen the class and very



attentive to the teacher. Now the subject  
regain her confidence in herself and  
started to do her work regularly  
and properly. The subject completed  
her homeworks given by the teachers  
on time. The subject also showed her  
interest in taking some responsibility  
over the class activities. The subject  
thanked the student-teacher for the  
advice and more information given to her.  
The student-teacher concludes the changes  
of the subject may lead to the  
rectification of the future.

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## INTRODUCTION:

Special education, also called special needs education, the education of children who differ socially, mentally, or physically from the average to such an extent that they require modifications of usual school practices. Special education serves children with emotional, behavioral or cognitive impairments or with intellectual, hearing, vision, speech, or learning disabilities, gifted children with advanced academic abilities; and children with orthopedic or neurological impairments. Special education is instruction that is specially designed to meet the unique needs of a child with a disability.

## NEED AND IMPORTANCE:

\* Every child has the right to the same opportunities as others, regardless of the difficulties they face.

\* Special education is of great importance for children with learning disabilities because it gives them the opportunity to get quality education in line with their unique needs.

\* Special education enables every student to gain a high level of independence and reach their full potential.

\* Special education is not only useful for the exceptional children, it also assists the teacher to know the learner and their learning difficulties.

\* Special education condemns the inferiority complex among the children.

## TYPES:

The different types of special education includes

- \* Hearing impairment
- \* Deaf-blindness
- \* Deafness
- \* Specific learning disabilities
- \* Autism
- \* Visual impairment
- \* Speech or language impairment.
- \* Emotional disturbance
- \* Intellectual disability
- \* Multiple disabilities
- \* Orthopedic impairment
- \* Severe learning difficulty
- \* Behavioural difficulties School.
- \* Physical impairment schools.

## Learning disabilities schools (LD):

children and young people placed in LD schools will have a learning difficulty or disability, and may also have:

- \* Autism
- \* Speech, language and communication
- \* needs

## Severe learning difficulty or disability schools (SLD)

children and young people placed in SLD schools will have disabilities like,

- \* Severe learning difficulty
- \* Significant difficulties with communication
- \* Sensory difficulties.

## Physical impairment schools:

This disability may be caused by injury, illness or genetic disorder. They

have difficulties like,

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- \* Sensory difficulties,

- \* Swallowing, feeding and drinking

### Hearing Impairment Schools:

Children and young people who attended HI schools have a significant hearing loss as their main need, which may affect their

- \* Speech, language and communication
- \* Listening and attention
- \* Literacy and numeracy
- \* Progress with learning
- \* Ability to express thoughts and feelings.

Social, emotional and mental Health difficulties

### Schools [SEMH]

#### Social difficulties:

- \* Always challenging authority
- \* Regular aggression or threat of aggression.

## Emotional Difficulties:

- \* Low self esteem and poor self image
- \* High levels of frustration or distress.

## Mental Health difficulties:

- \* Anxiety and depression
- \* Emotional disorders.



# GOVERNMENT DEAF AND DUMB SCHOOL

## About School:

Government Deaf and Dumb School was established in the year 1984. The school is located in old Suramangalam, near Salem railway junction. This school is the only govt. high school in Salem district for hearing impairment. This school was started as a Primary school in Sithanur at Salem and upgraded as high school in the year 1998.

## Features:

~~Residential~~ facility is available in the school for the students who are from far away places.

- \* It is a co-educational school.
- \* The medium of instruction is Tamil.
- \* The teacher student ratio is 1:8.

\* The students study only one language Tamil.

\* The curriculum is same for these students is normal school students.

### Aims and objectives:

The main aim of the school is to provide quality education, speech therapy, skills to generate employment and self reliance and also to create awareness amongst the public about the problems being faced by the silent children of God as well as their abilities.

\* The school has been striving hard to achieve the goal of total rehabilitation for the hearing impaired children who or a large extent are ignored, rejected by the community.

\* The students are also inspired to engage in extra curricular activities and

soft skills other than regular academics.

\* The teachers and therapists engaging students to learn and parents involved in both student programs and school activities.

Method of Teaching.

\* The school is following single language system, Tamil. The teacher will simplify the content and use very simple terms and provide resources to the students in various forms like multimedia, visual aids, powerpoint presentations.

\* As the curriculum is same as normal students, the method of teaching is different for science subjects, demonstration method or project method is used.

\* The teacher use simple to complex method of teaching and most of the time from known to unknown.

\* After successful completion of the course, the teachers also undergo various in-service programmes for effective teaching of the students with learning impairment.

### Pupil-Teacher Interaction:

The pupil teacher interaction was effective throughout the session.

There was 39 students for both 9<sup>th</sup> and 10<sup>th</sup> standards. Nine teachers were there. Everyday the teacher interact with students about their daily routine and life to give hope to students. Teachers conduct test and upload the test papers in EMIS portal.

### Conclusion:

The school teacher give hope to hearing impairment. From this school visit, we got hands on experience about the teaching learning process and handling students with hearing impairment.

## HELIX OPEN SCHOOL

### About School:

Helix trust, provides activities to impart academic skills to students, in particularly to those children with specific learning disabilities.

It is the first school in Salem district which provides education and training for more than a decade of experience in dealing children with learning difficulties, slow learners and ADHD students.

### Aims and Objectives:

\* Helix school aims to facilitate the assimilation, dissemination and generation of knowledge.

\* The school also aims to train all students, to free themselves from dogma, preconception and ideology to become independent

thinkers.

\* The school also strives to shape students to become conscious of their opinions, judgement, reflective of their actions and aware of their place in the social, natural world.

### Location and Features of the School:

\* The school is situated away from the hustle of the city, in a calm, pollution free surrounding with all in built infrastructure and easily accessible.

\* Computer / Robotics lab is the place where students are very active with their innovations.

\* After the morning chores, students start their day with slogans and meditation which provides them, a flourishing positive vibrancy.

\* The students are provided a healthy, well nourished balanced food.

Learning disability:

- \* Some of the learning disabilities are,
  - Poor performance on group tests.
- \* Difficulty in discriminating size, shape, colour.
- \* Difficulty with temporal concepts.
- \* General awkwardness.
- \* Poor visual motor coordination.
- \* Hyperactivity
- \* Poor social judgement
- \* Lags in developmental milestones.

Methods of Teaching:

The school follows six steps of Hierarchy for teaching - learning process.

- \* Word mapping.
- \* Word identification.
- \* Sentence writing
- \* Visual imagery
- \* Paraphrasing and

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## \* Mindmapping.

### Curriculum:

The school follows NIOS (National Institute of open schooling) curriculum.

This curriculum has wide range of subjects for the students with various disabilities.

So, the school follows this NIOS curriculum.

### Conclusion:

This school visit gave us experience of handling the children with learning disabilities and gain the knowledge about different teaching techniques to engage the students. To realize the truth that is everyone in the world has any one talent skill to find and shine by great teachers.



# GOVERNMENT MIDDLE SCHOOL FOR BLIND

## About School:

Government blind middle school was established in 1949 and it is managed by the Tribal/Social Welfare Department. It is located in urban area. It is located in Salem urban block of Salem district of TamilNadu. The school consists of Grades from 1 to 8. The school is co-educational and it doesn't have an attached pre-primary section.

## Features:

Residential facility is available in the school for the students who are from far away places.

- \* It is a co-educational school.
- \* The medium of instruction is Tamil.
- \* This school is approachable by all weather road.

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In this school academic session starts in April.

### Facilities of the school:

\* The school has got 8 classrooms for instructional purposes.

\* All the classrooms are in good condition.

\* It has two other rooms for non-teaching activities.

\* The school has a separate room for Head master / Teacher.

\* The source of drinking water in the school is tap water and it is functional.

\* The school has a playground.

\* The school is provided and prepares in school premises provided mid-day meals.

### Products and services offered:

Government middle school for the visually impaired in Shevapet has a wide

Ms

range of products and/or services to cater to the varied requirements of their customers. The staff at this establishment are courteous and prompt at providing any assistance. They readily answer any queries or questions that you may have.

The school provides a homely atmosphere to the students. The guardian took care of the students well as his own children.

Apart from the academic part, students are very skillful. They are having different skills like singing, dancing, drawing, painting, story telling.

Most importantly, the chance of distraction is very less for these students. Most of the students stays in the hostel.

## Conclusion:

The special school visit gave us a new experience to handle the children with different abilities. The school provides many hands-on activities to the students which makes the teaching . Learning process more effective. The curriculum provided to the students makes the learning more interesting to the students.

# Different Boards of Schools

## [CBSE]

## INTRODUCTION:

The Central Board of Secondary Education (CBSE) is a national level board of education in India for public and private schools, controlled and managed by the Government of India. Established in 1929 by a resolution of the government, the Board was indeed a bold experiment towards inter-state integration and co-operation in the sphere of secondary education. There are more than 27,000 schools in India and 240 schools in 28 foreign countries affiliated to the CBSE. All schools affiliated to CBSE follow the NCERT curriculum especially from class 9 to 12.

## Objectives:

The main objectives of CBSE are:

- \* To define appropriate approaches of academic activities to provide stress free, child centered and holistic education to all children without compromising on quality.
- \* To analyse and monitor the quality of academic activities by collecting the feedback from different stakeholders.
- \* To adapt and innovate methods to achieve academic excellence in conformity with psychological, pedagogical and social principles.
- \* To ~~encourage~~ schools to document the progress of students in a teacher and student friendly way.
- \* To prescribe and update the course of instructions of examinations.

\* To affiliate institutions for the purpose of examination and raise the academic standards of the country.

CBSE'S prime areas of focus:

Devising a student friendly study pattern by introducing effective innovations in teaching and learning methodologies. Improvement in examinations and evaluation processes to deliver fair results.

Promote the skill learning among students by adding job-oriented inputs.

conducting various service training programmes and workshops on regular basis so as to update the instructive skills of the teachers and administrators.



# MAHARISHI VIDYA MANDIR SENIOR SECONDARY SCHOOL

## About School:

Maharishi Vidya Mandir Senior Secondary School, Ellimankampatti was established in 2018. It is a co-ed school affiliated to Central Board of Secondary Education (CBSE). It is managed by Sri Velmurugan Charitable Trust. English is the medium of instruction. There are 22 teachers working in the school at present. Affiliation period of the school is from 01 April 2021 - 31 March 2024.

## Features:

- \* This school was situated in a calm circumstances which makes the learning process easier.
- \* Drinking water facility was provided inside the campus for the students and

teacher.

\* Separate toilet facilities were provided for both boys and girls which are in good working condition.

\* Science laboratory was provided for the students.

\* Every classroom has a smart board in them, which makes the learning process active.

\* 'coding' classes were conducted to the students which makes the students to get involved in their activities.

Activities and Events:

Various activities and events were provided to the students to enrich their skill some of the activities includes

- \* yoga activity
- \* Annual day / festival
- \* Handwriting competition

- \* Extra-curricular Activities
- \* Dancing competition.

Core values:

Various applications and classes were provided in the campus to enrich the overall capabilities of the students. Various applications used in the campus includes.

- \* Thulir - phonetics
- \* WriteWiz - Transform your handwriting
- \* Words worth - English Language Lab.
- \* Money Smart } - Financial Education.  
School }
- \* OSLA - Leadership skills.
- \* Learning Management System (LMS)
- \* Karadi Path - Power English
- \* King Makers - Life Skill Lab.

## Curriculum :

The syllabus and curriculum followed are the same as those of central schools. The teachers render education in its smartest and enalted form. The CBSE curriculum provides a great way to deliver education with a global perspective. The program has two exams, Term I and Term II, respectively, and each exam covers 50% of the total program.

## Conclusion :

Through this school visit, we have learnt many upgraded applications and the usage of smartboards in the classroom and the effectiveness of it in the teaching learning process. And also the way of handling students in their own ways and teach to & which is most suitable to them are learn from this school visit.

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SRI SSHAAS INTERNATIONAL  
PUBLIC SCHOOL

About school:

Sri Sshaas International Public School was established in the year 2010. It is a co-educational school affiliated to central Board of Secondary Education. It is managed by the Sshaas Educational Learning Foundation. The medium of instruction is English. The streams offered are PCM, Commerce and PCB. There are 30 classrooms in the campus. The campus is surrounded with 5.74 Acres. The ownership is under private unaided organisation.

Features:

- \* The school has a vast surroundings with a greeny circumstances.
- \* There are a total of 84 rooms in the school campus.

\* There are 7 laboratories in the school with well equipped materials.

\* There is 1 library present in the school which has a vast collection of books related to both curriculum and extra curricular activities.

\* The sanitary conditions were maintained in a good condition, and separate toilets were provided for boys and girls.

\* Drinking water and fire safety of the school has been obtained from the competent authorities of the area.

### Facilities :

\* Transport facilities were provided for the school students and teachers.

\* Gymnasium were trained to the students effectively.

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\* Separate dance room were provided to the students with well structured infrastructure.

\* Music rooms are available with various instruments, which triggers the interest of the students.

\* The whole school was observed under the CCTV surveillance.

\* Health and medical help rooms are provided to the students to treat them in case of emergency.

### Activities and Events:

The school provides various activities and events like

\* yoga activity

\* Annual day

\* Sports day

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- \* Christmas Carnival
  - \* Educational tours.
  - \* Scouts, Guides and N.C.C
  - \* Science Exhibition
  - \* Art and craft
  - \* Workshops
  - \* Festival celebrations.

### Pupil - Teacher Interaction:

The whole communication process was done in the English language. The pupil teacher interaction was effective throughout the class. The students responded to all the questions posted by the teachers on them.

### Conclusion:

Through this school visit, I learnt on how to engage the students effectively and came to know about various teaching methods to make the teaching learning process effective.

29/09/20



# Assessing Student learning

## SRI SARADA COLLEGE OF EDUCATION

(AUTONOMOUS)  
SALEM - 636 016.



**B.Ed., Course**  
**Test and Measurement**

### Bonafide Certificate

Name of the Student Teacher : S. SOWDHESWARI

Register Number : 2021P35

Optional Subject : 1 PHYSICAL SCIENCE

2 TAMIL

*S. Sowdhi*  
Signature of the Student Teacher

*R. Sowdhi*  
Signature of the Internal Examiner  
06/01/2023

Signature of the External Examiner

Date : 04-01-2023

Station : Salem

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# TEST AND MEASUREMENT

## INTRODUCTION

↳ Assessment is a process by which information is obtained relative to some known objective or goal. It is a broad term that includes testing. A test is a special form of assessment.

↳ According to Fenton (1996), "Assessment is the collection of relevant information that may be relied on for making decisions."

↳ It is an important part of the process of regional accreditation and is done at multiple levels including the classroom, program and institution.

↳ According to Hanna, "Evaluation is the process of gathering and interpreting evidence on changes in the behaviour of all students as they progress through school,"

↳ If evaluation is successful it will determine the match between intended outcomes and actual outcomes. Evaluation of a program considers not only student learning but also research activities, community service and cost-effectiveness.

# TEST

L.J. Cronbach, in his book *essentials of psychological testing* (1970) defines a test as a systematic procedure for observing and describing one or a more characteristics of a person with the aid of either a numerical scale or a category system.

## OBJECTIVES OF TESTS

- ↳ To identify the interests of the students.
- ↳ To identify the underachievers.
- ↳ To improve learning and teaching techniques.
- ↳ To identify the gifted students.
- ↳ To obtain data for diagnostic purposes.

## RELATIVE IMPORTANCE OF TESTING

\* Tests are used in the guidance programme as they have the following merits as compared with other techniques of guidance.

- ↳ They are objective
- ↳ They are economical techniques of collecting information
- ↳ They are less time consuming

## SIX FOLD CLASSIFICATION OF TEST

- ↳ Subjective test and objective test
- ↳ Criterion-referenced test and norm-referenced
- ↳ Standardized and non-standardized test
- ↳ Maximum performance test and typical performance tests
- ↳ Select-response tests and supply response tests
- ↳ Speed tests and Power tests



# MEASUREMENT

\* Guilford, "Measurement means the description of data in terms of number and this, in turn, means taking advantage of the many benefits that operations with number and mathematical thinking provide".

\* Campbell, "Measurement means assignment of numbers to objects or events according to rules".

\* Tyler (1963), "Measurement means assignment of numerals according to rules".

# IMPORTANCE OF EDUCATIONAL MEASUREMENT

- ↳ To help the teachers to evaluate their teaching programmes.
- ↳ To help in marking, programming, prediction, curriculum evaluation and planning.
- ↳ To help in measuring attitude, achievement, interest and personality traits of learners.
- ↳ To identify the weaknesses of the learners.

# FUNCTIONS OF MEASUREMENT

- ⇒ Prediction
- ⇒ Helping Evaluation
- ⇒ Diagnosis
- ⇒ Curriculum Development
- ⇒ Classification
- ⇒ Guidance & Counselling
- ⇒ Helping Administration

## SCALES OF MEASUREMENT

\* Four types of scales are used in the measurement. This classification is given by Stevens. They are also called as levels of measurement which is expressed in terms of quantitative phenomena. These are following:

- ⇒ Nominal or classificatory scales.
- ⇒ Ordinal or Ranking scales
- ⇒ Interval scales
- ⇒ Ratio scales

## CHARACTERISTICS OF MEASUREMENT

\* Physical Sciences Measurement is accurate and precise, where as educational and psychological measurements are subjective relative and not precise.

\* The units in Physical measurements are fundamental; but in case of mental measurement are derived.

\* There is no absolute or arbitrary zero-point in case of mental measurement. Mental measurement is relative to some standard or norm.

\* The instrument used in educational and psychological measurements are never exact, rather they are approximates.

\* Measurement is always concerned with certain attributes or variables or features of an object. It is these attributes or features of the object which are measured and not the object itself.

## CHARACTERISTICS OF GOOD TEST

- ↳ It can be tried out and selected on the basis of its difficulty level and discriminating power.
- ↳ It should possess description of measure behaviour in realistic and practical terms.
- ↳ It provides equivalent and comparable forms of the tests.
- ↳ A test manual has to be prepared, which can act as a guide for administering & scoring.

## CHARACTERISTICS OF ACHIEVEMENT TESTS

- ⇒ Reliability
- ⇒ Validity
- ⇒ Acceptability
- ⇒ Flexibility
- ⇒ Objectivity



OPTIONAL  
SUBJECT - 1

PHYSICAL  
SCIENCE



# WEIGHTAGE TABLE

## Objectivewise weightage table

S.No	Objectives	Marks out of (50)	Marks out of (100)
1.	Knowledge	04	08
2.	Understand	20	40
3.	Application	20	40
4.	Skill	06	12
	<b>Total</b>	<b>50</b>	<b>100</b>

## Contentwise weightage table

S.No	Content	Marks out of (50)	Marks out of (100)
1.	Properties of Matter	27	54
2.	Heat and Thermodynamics	23	46
	<b>Total</b>	<b>50</b>	<b>100</b>

## Questionwise weightage table

S.NO	Types of questions	Mark out of (50)	Mark out of (100)
1.	objective, type	15	30
2.	very short answer	12	24
3.	long answer	15	30
4.	essay type	08	16
<b>Total</b>		<b>50</b>	<b>100</b>

## Weightage to difficulty level

S.No	Objectives	Marks		Percentage
		50	100	
1.	Easy	18	36	36%
2.	Moderate	22	44	44%
3.	Hard	10	20	20%
<b>Total</b>		<b>50</b>	<b>100</b>	<b>100%</b>



# BLUEPRINT

Objectives	Knowledge	Understand	Application	Skill	Total
Content	objective type	essay type	essay type	objective type	1 (7)
	Long Answer	Long Answer	Long Answer	Long Answer	4 (1)
	Very Short Answer	Very Short Answer	Very Short Answer	Very Short Answer	2 (3)
	essay type	essay type	essay type	essay type	5 (1)
Properties of Matter	objective type	objective type	objective type	objective type	1 (8)
	Long Answer	Long Answer	Long Answer	Long Answer	5 (1)
	Very Short Answer	Very Short Answer	Very Short Answer	Very Short Answer	2 (3)
	essay type	essay type	essay type	essay type	4 (1)
Heat and Thermodynamic	objective type	objective type	objective type	objective type	1 (2)
	Long Answer	Long Answer	Long Answer	Long Answer	5 (1)
	Very Short Answer	Very Short Answer	Very Short Answer	Very Short Answer	2 (1)
	essay type	essay type	essay type	essay type	2 (1)
Total	4	20	20	6	50

MUNICIPAL GIRLS HIGHER SECONDARY SCHOOL  
GUGAI, SALEM

CLASS: XI Standard  
SUBJECT: Physics

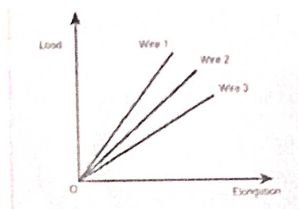
MAX.MARKS: 50  
TIME: 1 ½ hours

PART-I

Answer the following questions by selecting the most appropriate answer:

1. Consider two wires X and y. The radius of wire X is 3 times the radius of y. If they are stretched by the same load then the stress on y is  
a. Equal to that on X    b. Twice that on X    c. Nine times that on X    d. Half that on X

2. The load elongation graph of three wires of the same material is shown in figure. Which of the following wire is the thickest?  
a. Wire 1  
b. Wire 2  
c. Wire 3  
d. All of them have same thickness



3. For a given material, the rigidity modulus is  $(1/3)^{rd}$  of Young's modulus. Its poisson ratio is  
a. 0    b. 0.25    c. 0.3    d. 0.5

4. Which of the following is not a scalar?  
a. Viscosity    b. Surface tension    c. Pressure    d. Stress

5. The following four wires are made of the same material. Which of these will have the largest extension. When the same tension is applied?  
a. Length = 200cm, diameter=0.5mm    b. Length = 200cm, diameter=1mm  
c. Length = 200cm, diameter=2mm    d. Length = 200cm, diameter=3mm

6. In horizontal pipe of non uniform cross section, water flows with the velocity of  $1\text{ms}^{-1}$  at a point where the diameter of the pipe is 20cm. The velocity of water ( $1.5\text{ms}^{-1}$ ) at a point where the diameter of the pipe is (in cm)  
a. 8    b. 16    c. 24    d. 32

7. The wettability of a surface by a liquid depends primarily on  
a. Viscosity    b. Surface tension    c. Density    d. Angle of contact between the surface and the liquid

8. The graph between volume and temperature in Charles law is  
a. An ellipse    b. A Circle    c. A Straight-line    d. A Parabola

9. When a circle tires suddenly burst, the air inside the tyre expands. This process is  
a. Isothermal    b. Adiabatic    c. Isobaric    d. Isochoric

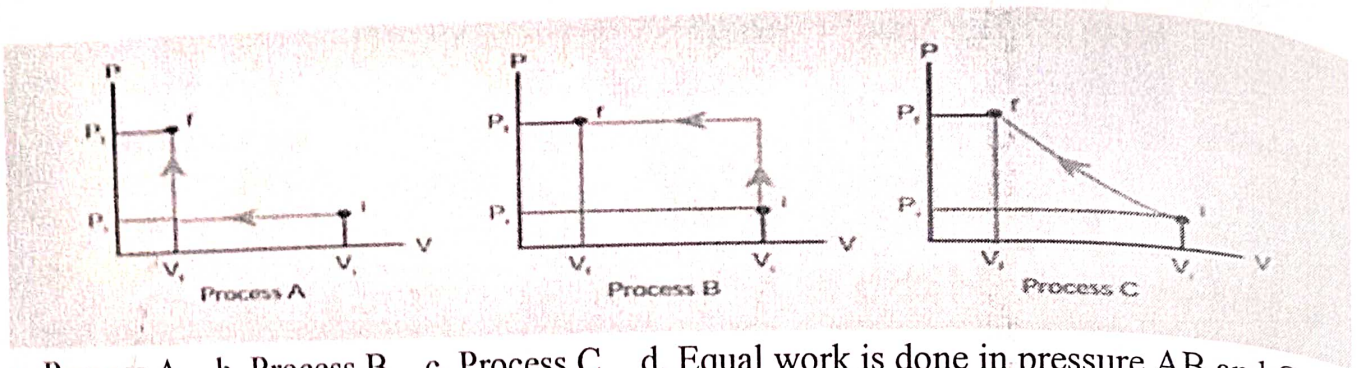
10. An ideal gas passes from one equilibrium state  $(P_1, V_1, T_1, N)$  to equilibrium state  $(2P_1, 3V_1, T_2, N)$ . Then,  
a.  $T_1 = T_2$     b.  $T_1 = T_2/6$     c.  $T_1 = 6T_2$     d.  $T_1 = 3T_2$

11. When a uniform rod is heated, which of the following quantity of the rod will increase  
a. Mass    b. Weight    c. Centre of mass    d. Moment of inertia

12. Identify the state variables given here?  
a. Q, T, W    b. P, T, U    c. Q, W    d. P, T, Q

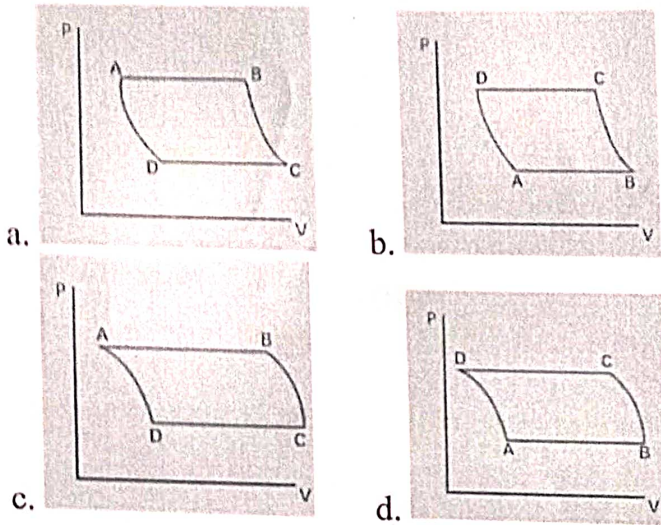
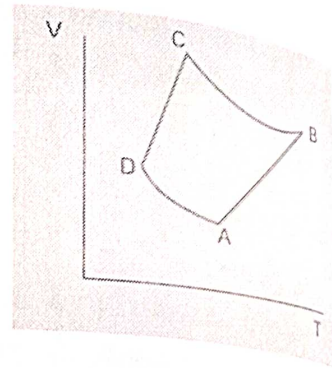
13. An ideal refrigerator has a freezer at a temperature  $-12^\circ\text{C}$ . The coefficient of performance of the engine is 5. The temperature of the air (to which the heat ejected) is  
a.  $50^\circ\text{C}$     b.  $45.2^\circ\text{C}$     c.  $40.2^\circ\text{C}$     d.  $37.5^\circ\text{C}$ .

14. An ideal gas is taken from  $(P_i, V_i)$  to  $(P_f, V_f)$  in three different ways. Identify the process in which the work done on the gas the most.



a. Process A   b. Process B   c. Process C   d. Equal work is done in pressure AB and C

15. The VT diagram of an ideal gas which does through a reversible cycle A-B-C-D is shown below. (Processes D-A and B-C are adiabatic) The corresponding PV diagram for the process is (all figures of schematic)



**PART-II**

Answer all the questions:

16. Define stress and the strain
17. Define poisson's ratio
18. State Bernoulli's theorem
19. State Stefan-Boltzmann law
20. Apply first law for a) an isothermal b) adiabatic c) isobaric processes
21. Draw the PV diagram for a) isothermal process b) adiabatic process c) isobaric d) isochoric process

**PART-III**

Answer all the questions:

22. State and To Prove Bernoulli Theorem for a flow of incompressible non -Viscous and Streamlined flow of Fluid.
23. A Cylinder of length 1.5 m and diameter 4 cm is fixed at one end. At tangential force of  $4 \times 10^5 \text{ N}$  is applied at the other end. If the rigidity modulus of the cylinder is  $6 \times 10^{10} \text{ Nm}^{-2}$  then, calculate that twist to produce in the cylinder.
24. Explain in detail Newton's law of cooling

Answer all the questions:

**PART-IV**

25. i) State and Prove Pascal's law in Fluids  
ii) Derive Mayer's Relation for an ideal gas

# ANSWER KEYS

## PART-I

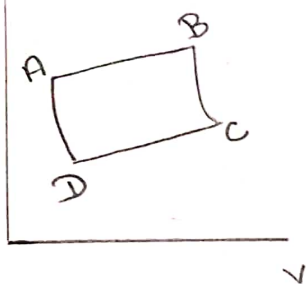
Answer the following questions by selecting the most appropriate answer:

1. c) Nine times that on  $\pi$
2. a) wire 1
3. d) 0.5
4. d) stress
5. a) length = 200 cm, diameter = 0.5 mm
6. b) 16
7. d) Angle of contact between the surface and the liquid
8. c) A straight-line
9. b) Adiabatic
10. b)  $T_1 = \frac{T_2}{b}$
11. d) Moment of inertia
12. b) P, T, U

13. c)  $40.2^{\circ}\text{C}$

14. a) Process A

15. a) P



### PART-II

Answer all the questions:

16. stress: The restorative force per unit area is called stress. Its SI unit is  $\text{Nm}^{-2}$

strain: The ratio between the change in size to the original size is called strain. It has no unit and dimensionless quantity

17. When we stretch a rubber band in one direction [elongation], it becomes thinner in perpendicular direction [contraction].

The ratio between the relative contraction [lateral strain] to the relative stress [longitudinal stress] is called Poisson's ratio and it is denoted as  $\mu$

Length of the wire =  $L$

Diameter of the wire =  $D$

Increase in length =  $l$

Decrease in diameter =  $d$

$$\text{Poisson's ratio} = \frac{\text{lateral strain}}{\text{longitudinal stress}}$$

$$\mu = - \left[ \frac{d}{D} \right] \left[ \frac{L}{l} \right]$$

18. According to Bernoulli's theorem, the sum of the pressure energy, kinetic energy and potential energy per unit mass of an incompressible, non-viscous fluid in a streamlined flow remain a constant.

$$\frac{P}{\rho g} + \frac{1}{2} \frac{v^2}{g} + h = \text{Constant}$$

19. Stefan-Boltzmann law states that total amount of heat radiated per second per unit area of a black body is directly proportional to the fourth power of the absolute temperature.

$$E \propto T^4$$

$$E = \sigma T^4$$

$\sigma$  is known as stefan's constant

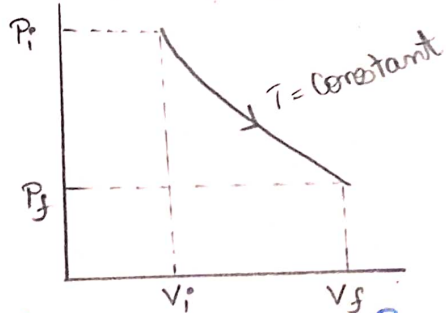
Its value is  $5.67 \times 10^{-8} \text{ W m}^{-2} \text{ K}^{-4}$

20. \* The first law of Thermodynamic in Isothermal Process,  $Q = W$

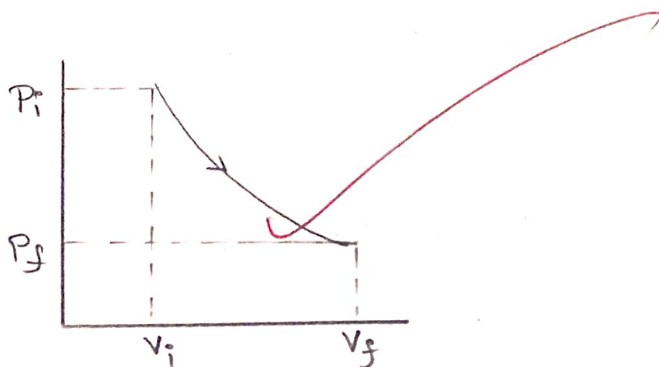
\* The first law of Thermodynamic in adiabatic Process,  $\Delta U = -W$

\* The first law of thermodynamic in isobaric Process,  $\Delta U = Q - P\Delta V$

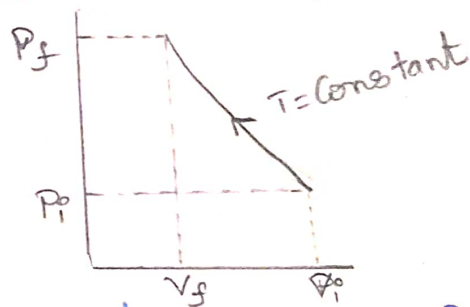
21. Isothermal Expansion



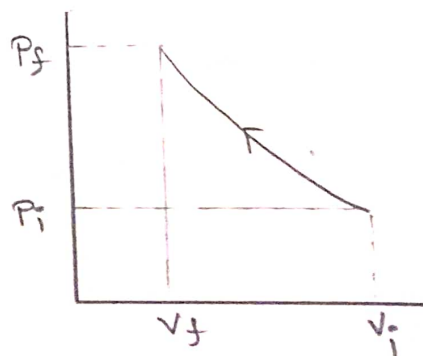
Adiabatic Expansion



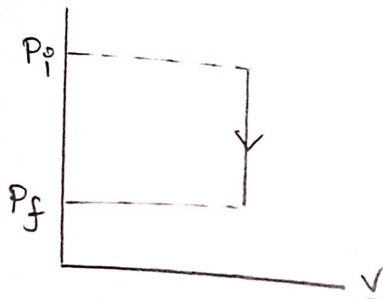
Isothermal Compression



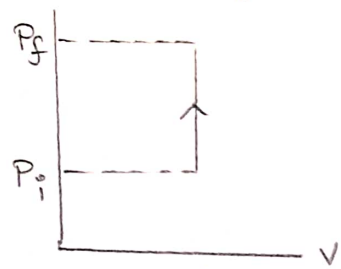
Adiabatic Compression



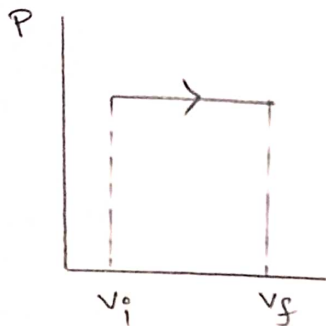
Isochoric expansion



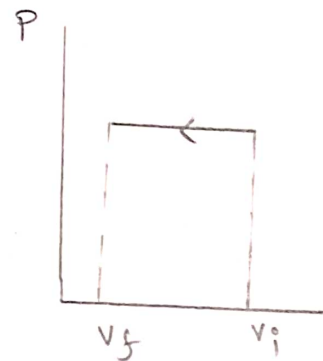
Isochoric Compression



Isoobaric expansion



Isoobaric Compression



### PART - III

Answer all the following

22. According to Bernoulli's theorem, the sum of the pressure energy, kinetic energy and potential energy per unit mass of an incompressible, non-viscous fluid in a streamed line remain a constant.

$$\frac{P}{\rho g} + \frac{1}{2} v^2 + gh = \text{constant}$$

Proof: Let we consider a flow a liquid through the pipe AB.



Area of the pipe at A =  $a_A$

Pressure at A =  $P_A$

Volume of the liquid at A =  $V_A$

The  $V$  is the volume of the liquid at a time  $t$ , and that time the liquid leaving the same time.

Force of the liquid at a point A,

$$F_A = P_A a_A$$

Distance at the point A

$$d = V_A t$$

Work done at A is,  $W = F_A d = P_A a_A V_A t = P_A a_A d$

$$W = P_A V$$

Pressure energy of the liquid A,

$$E_{PA} = P_A V \left[ \frac{m}{m} \right] = \frac{P_A m}{\frac{m}{V}} = \frac{P_A m}{\rho}$$

Kinetic energy of the liquid A,

$$KE_A = \frac{1}{2} m V_A^2$$

Potential energy of the liquid A,

$$PE_A = m g h_A$$

Total energy in the point A,

$$E_A = E_{PA} + KE_A + PE_A$$

$$= \frac{P_A m}{\rho} + \frac{1}{2} m v_A^2 + m g h_A \rightarrow \textcircled{1}$$

Total energy in a point B,

$$E_B = E_{PB} + KE_B + PE_B$$

$$= \frac{P_B m}{\rho} + \frac{1}{2} m v_B^2 + m g h_B \rightarrow \textcircled{2}$$

From  $\textcircled{1}$  &  $\textcircled{2}$

$$\frac{P_A m}{\rho} + \frac{1}{2} m v_A^2 + m g h_A = \frac{P_B m}{\rho} + \frac{1}{2} m v_B^2 + m g h_B$$

$$\text{(or)} \quad \frac{P_A}{\rho} + \frac{1}{2} v_A^2 + g h_A = \frac{P_B}{\rho} + \frac{1}{2} v_B^2 + g h_B$$

$$\text{(or)} \quad \frac{P}{\rho} + \frac{1}{2} v^2 + g h = \text{Constant}$$

It is otherwise called,

$$\frac{P}{\rho g} + \frac{1}{2} \frac{v^2}{g} + h = \text{Constant}$$

When a liquid flow in a horizontal pipe,

$$\frac{P}{\rho g} + \frac{1}{2} \frac{v^2}{g} = \text{Constant}$$

$$23. \quad \eta_R = \frac{\left[ \frac{F_E}{A} \right]}{\theta}$$

$$\eta_R = \frac{\left[ \frac{F_E}{\pi r^2 l} \right]}{\theta}$$

$$\theta = \frac{F_E}{\pi r^2 l \eta_R}$$

$$= \frac{4 \times 10^5}{\pi r^2 l \eta_R}$$

$$= \frac{4 \times 10^5}{3.14 \times 2 \times 10^{-2} \times 2 \times 10^{-2} \times 15.2 \times 6 \times 10^{10}}$$

$$= \frac{10^{-1}}{3.14 \times 1.5 \times 6}$$

$$\theta = 3.538 \times 10^{-2} \text{ rad}$$

24. Newton's Law of Cooling states that the rate of loss of heat is directly proportional to the difference in the temperature of the body and its surrounding.

$$\frac{dQ}{dt} \propto -[T - T_s]$$

Proof: The temperature of the object loss heat to the surrounding. ✓

mass of the object =  $m$

specific heat capacity =  $s$

temperature of the object =  $T$

temperature of the surrounding =  $T_s$

The temperature of the object  $dT$ , Fall the heat at a time  $dt$ .

$$dQ = msdT$$

$$\frac{dQ}{dt} = ms \frac{dT}{dt} \rightarrow \textcircled{1}$$

First law of thermodynamics,

$$\frac{dQ}{dt} \propto -[T - T_s]$$

$$\frac{dQ}{dt} = -a [T - T_s] \rightarrow \textcircled{2}$$

$-a$  = proportion constant

from equ  $\textcircled{1}$  &  $\textcircled{2}$

$$-a [T - T_s] = ms \frac{dT}{dt}$$

$$-\frac{a}{ms} dt = \frac{dT}{T - T_s}$$

Integrate both sides,

$$\frac{-a}{ms} \int dt = \int \frac{dT}{T - T_s}$$

$$\int \frac{dT}{T - T_s} = \frac{-a}{ms} \int dt$$

$$\log_e [T - T_s] = \frac{-a}{ms} t + b_1$$

exponential,

$$T - T_s = e^{\frac{-a}{ms} t + b_1}$$

$$= e^{\frac{-a}{ms} t} \cdot e^{b_1}$$

$$= T_s + b_2 \cdot e^{\frac{-a}{ms} t}$$

$$e^{b_1} = b_2$$

### PART - IV

Answer all the following

25(i) Pascal's law states that, when a pressure of a liquid is increased at a particular point, this increased pressure is transmitted in the entire liquid and is undiminished in all

direction.

Application of a Pascal's law:

The practical application of a Pascal's law is the hydraulic lift which is used to lift a heavy load with a small force. It is a force multiplier.

It consists of two cylinders A and B connected to each other by a horizontal pipe filled with a liquid.

It is filled with a fluid. Piston of cross sectional area  $A_1$  &  $A_2$  [ $A_2 > A_1$ ]

Suppose a downward force is applied on smaller piston B, the pressure of the piston A is increased

$$\text{to } P = \frac{F_1}{A_1}$$

According to Pascal's law, the pressure is transmitted in the larger piston.

$$F_2 = \frac{F_1}{A_1} \times A_2 = \frac{A_2}{A_1} \times F_1$$

By changing the force on the smaller piston B, the force on the piston A is increased to  $\frac{A_2}{A_1}$  this factor is called mechanical advantage of a lift.

(ii) The "M" is the molecular ideal gas container. The gas is heated at constant volume, Q of heat the gas at the time dt (ie) no work is done (W=0). The internal energy is formed.

$C_{v1}$  is the molar specific heat capacity at constant volume.

$$Q = \mu C_{v1} dT$$

The internal energy is changed, at first law of thermodynamics,

$$dU = Q - W$$

$$dU = Q = \mu C_{v1} dT \rightarrow \text{①}$$

The gas is heated at constant temperature,

$C_p$  is the molar specific heat capacity at constant pressure, the Q heat of temperature is produced,

$$Q = mC_p dT \rightarrow (2)$$

$$W = Pdv \rightarrow (3)$$

Sub (1) & (2) & (3) in  $du = Q - W$

$$mC_v dT = C_p m dT - Pdv$$

The ideal gas equ

$$PV = mRT$$

differentiate both sides,

$$Pdv = mRdT$$

$$mC_v dT = mC_p dT - mRdT$$

$$C_v = C_p - R$$

$$R = C_p - C_v$$



# MARK LIST

S.No	Name	Mark obtained By 50	Mark obtained By 100
1.	Akshaya . A	39½	79
2.	Boornikameera . K	39	78
3.	Deepika . S.S	47	94
4.	Devadharsini . M	46	92
5.	Gayathri . R	39½	79
6.	Gayathri . S	43	86
7.	Hasini . E	49	98
8.	Hasini . V	44½	89
9.	Janani . S	31½	63
10.	Janani . S	42½	85
11.	Janani . V	36	72
12.	Jeevitha . K	28	56
13.	Kabirajya . A	42	84
14.	Kavya . S	42	84
15.	Kavya . B	32½	65
16.	Kavyadharsa . M	48	96
17.	Kattaswari . G	48	96
18.	Madhusree . R	31	62
19.	Manimegalai . M	41	82

20.	Meemakshi . M	$26\frac{1}{2}$	53
21.	MohanaPriya . K	$39\frac{1}{2}$	79
22.	Monika . A.R	24	48
23.	Monika . G	$44\frac{1}{2}$	89
24.	Monisha . V	45	90
25.	Naveena . V	$46\frac{1}{2}$	93
26.	Nisha . S	$46\frac{1}{2}$	93
27.	PadmaPriya . S	44	88
28.	Ramya . V	$45\frac{1}{2}$	91
29.	Rasika . D	$40\frac{1}{2}$	81
30.	Reyalini . M	$32\frac{1}{2}$	65
31.	Sankasi . S	31	62
32.	Shalini . S	$40\frac{1}{2}$	81
33.	Swaharini . E	$36\frac{1}{2}$	73
34.	Soumitra . P	$41\frac{1}{2}$	83
35.	Thelochine . S.J	$47\frac{1}{2}$	95
36.	Thelochini . S.J	$43\frac{1}{2}$	87
37.	Vaishnavi . S	33	66
38.	Vanitha . R	$47\frac{1}{2}$	95
39.	Veni . R	47	94
40.	Yogeshwari . U	$38\frac{1}{2}$	67

# FREQUENCY DISTRIBUTION

79, 78, 94, 92, 79, 86, 98, 89, 63, 85, 72, 56, 84,  
 84, 65, 96, 96, 62, 82, 53, 79, 48, 89, 90, 93, 93, 88,  
 91, 81, 65, 62, 81, 73, 83, 95, 87, 66, 95, 94, 67

Class Interval	Tally	Frequency
41-50		1
51-60		2
61-70		7
71-80		6
81-90		13
91-100		11
		40

Class Interval	Lower limit	Mid Point $x$	$f$	$cf$	$d = \frac{x-A}{i}$	$d^2$	$fd$	$fd^2$
41-50	40.5 - 50.5	45.5	1	1	-2	4	-2	4
51-60	50.5 - 60.5	55.5	2	3	-1	1	-2	2
61-70	60.5 - 70.5	65.5	7	10	0	0	0	0
71-80	70.5 - 80.5	75.5	6	16	1	1	6	6
81-90	80.5 - 90.5	85.5	13	29	2	4	26	52
91-100	90.5 - 100.5	95.5	11	40	3	9	33	99

$\sum fd = 61$     $\sum fd^2 = 163$

$\sum f = 40$

## Central Tendency:

### 1. Mean ( $\bar{x}$ )

$$\bar{x} = A + \left[ \frac{\sum fd}{\sum f} \right] \times i$$

A = Assumed Average

$\sum fd$  = Total deviations multiplied with respective frequency

$\sum f$  = total frequency

i = Common factor

$$A = 65.5 \quad \sum fd = 61 \quad \sum f = 40 \quad i = 10$$

$$= 65.5 + \left[ \frac{61}{40} \right] \times 10$$

$$= 65.5 + 1.525 \times 10$$

$$= 65.5 + 15.25$$

$$\bar{x} = 80.75$$

## ii) Median ( $M_n$ )

$$M_n = l + \left[ \frac{\frac{N}{2} - cf}{f} \right] \times i$$

$l$  = lower limit of the median class

$cf$  = cumulative frequency

$f$  = simple frequency of the median class

$i$  = common factor

$$l = 80.5 \quad \frac{N}{2} = \frac{40}{2} = 20 \quad cf = 16$$

$$f = 13 \quad i = 10$$

$$= 80.5 + \left[ \frac{20 - 16}{13} \right] \times 10$$

$$= 80.5 + \left[ \frac{4}{13} \right] \times 10$$

$$= 80.5 + 0.307 \times 10$$

$$= 80.5 + 3.07$$

$$M_n = 83.57$$

iii) Mode ( $M_d$ )

$$\text{Mode} = 3 \times \text{Median} - 2 \times \text{Mean}$$

$$\text{Median} = 83.57$$

$$\text{Mean} = 80.75$$

$$\begin{aligned} M_d &= 3 \times 83.57 - 2 \times 80.75 \\ &= 250.71 - 161.5 \end{aligned}$$

$$M_d = 89.21$$

# Measure of Dispersion

## i) Range

$$\begin{aligned} \text{Range} &= \text{Highest Mark} - \text{Lowest Mark} \\ &= 98 - 48 \end{aligned}$$

$$\text{Range} = 50$$

## ii) Quartile Deviation (QD)

$$QD = \frac{Q_3 - Q_1}{2}$$

$$Q_3 = l_3 + \left[ \frac{\frac{3N}{4} - cf}{f} \right] \times i$$

$$Q_1 = l_1 + \left[ \frac{\frac{N}{4} - cf}{f} \right] \times i$$

Find Q<sub>3</sub> value;

$l_3$  = lowest limit of the median class

$cf$  = Cumulative frequency

$f$  = simple frequency of the median class

$i$  = Common factor



$$l_3 = 90.5 ; \frac{3N}{4} = \frac{3 \times 40}{4} = 30 ; f = 11$$

$$Cf = 29 ; i = 10$$

$$Q_3 = 90.5 + \frac{(30 - 29)}{11} \times 10$$

$$= 90.5 + \frac{1}{11} \times 10$$

$$= 90.5 + 0.09 \times 10$$

$$= 90.5 + 0.9$$

$Q_3 = 91.409$

Find  $Q_1$  Value;

$l_1$  = Lowest limit of the median class

$Cf$  = Cumulative frequency

$f$  = total frequency

$i$  = Common factor

$$l_1 = 60.5 ; \frac{N}{4} = \frac{40}{4} = 10 ; f = 7$$

$$Cf = 3 ; i = 10$$

$$\begin{aligned}
 Q_1 &= 60.5 + \frac{(10-3)}{7} \times 10 \\
 &= 60.5 + \frac{7}{7} \times 10 \\
 &= 60.5 + 1 \times 10 \\
 &= 60.5 + 10
 \end{aligned}$$

$$Q_1 = 70.5$$

$$Q_D = \frac{Q_3 - Q_1}{2}$$

$$Q_3 = 91.409$$

$$Q_1 = 70.5$$

$$= \frac{91.409 - 70.5}{2}$$

$$= \frac{20.909}{2}$$

$$Q_D = 10.454$$



### iii) Standard deviation ( $\sigma$ )

$$\sigma = \sqrt{\frac{\sum fd^2}{\sum f} - \left[\frac{\sum fd}{\sum f}\right]^2 \times i}$$

$\sum fd^2$  = Squared total deviations multiplied with respective frequency

$\sum fd$  = total deviations multiplied with respective frequency

$\sum f$  = Total frequency

$i$  = Common factor

$$\sum fd^2 = 163 ; \quad \sum fd = 61 ; \quad \sum f = 40 ; \quad i = 10$$

$$= \sqrt{\frac{163}{40} - \left(\frac{61}{40}\right)^2 \times 10}$$

$$= \sqrt{4.075 - \frac{3721}{1600} \times 10}$$

$$= \sqrt{4.075 - 2.325 \times 10}$$

$$= \sqrt{1.75 \times 10}$$

$$= 1.322 \times 10$$

$$\sigma = 13.22$$

# ITEM ANALYSIS

S.NO	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Havini . E	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2.	Kavyadhavsha . M	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3.	Kotteawasi . G	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1
4.	Thelechina . S . J	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5.	Varitha . R	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6.	Veri . R	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7.	Deepika . S . S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.	Naveena . V	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1
9.	Nisha . S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10.	Devadhavshini . M	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11.	Ramya . V	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12.	Munisha . V	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		12	12	12	12	12	12	12	12	12	12	12	11	11	12	12

S.No	Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
29.	Sivaharini . E	1	1	1	1	1	1	1	1	0	0	0	1	0	1	1
30.	Jamari . V	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31.	Yogeshwar . U	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
32.	Vaishnavi . S	1	1	1	0	1	1	1	1	1	1	1	1	1	0	0
33.	Reyalini . M	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34.	Kavya . B	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1
35.	Jamari . S	1	1	1	0	1	1	1	0	1	1	1	1	0	1	1
36.	Madhusheel . R	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
37.	Sambasi . S	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
38.	Jeevitha . K	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
39.	Meenakshi . M	1	1	0	1	1	0	1	1	0	0	0	0	0	0	1
40.	Menika . A . R	1	1	0	1	1	1	1	1	1	0	0	0	0	0	1
		12	12	10	10	12	11	11	10	11	8	8	10	8	8	11

Difficulty Level

$$N_H = N_L = 12$$

Questions	$R_H$	$R_L$	$\frac{R_H + R_L}{N_H + N_L} \times 100$
1.	12	12	100
2.	12	12	100
3.	12	10	91.66
4.	12	10	91.66
5.	12	12	100
6.	12	11	95.83
7.	12	11	95.83
8.	12	10	91.66
9.	12	11	95.83
10.	12	8	83.33
11.	12	8	83.33
12.	11	10	87.5
13.	11	8	79.16
14.	12	8	83.33
15.	12	11	95.83

i) 0-20%. Hard (0)

ii) 20-80%. Moderate (1)

iii) 80-100%. Easy (14)

# Discriminative Index

$$N_H = 12$$

Questions	$R_H$	$R_L$	$\frac{R_H - R_L}{N_H}$
1.	12	12	0
2.	12	12	0
3.	12	10	0.16
4.	12	10	0.16
5.	12	12	0
6.	12	11	0.08
7.	12	11	0.08
8.	12	10	0.16
9.	12	11	0.08
10.	12	8	0.33
11.	12	8	0.33
12.	11	10	0.08
13.	11	8	0.25
14.	12	8	0.33
15.	12	11	0.08

i) 0-0.19 Eliminate the items (11)

ii) 0.20-0.29 Modify the items (1)

iii) 0.30-0.39 slightly modify the items (3)

iv) 0.40-above Good items (0)

# SPEARMAN RANK CORRELATION

S.No	Subject 1	$R_1$	Subject 2	$R_2$	$D = R_1 - R_2$	$D^2$
1.	43	31	79	26	5	25
2.	52	24	78	28	-4	16
3.	52	24	94	6.5	17.5	306.25
4.	58	17.5	92	10	7.5	56.25
5.	54	22	79	26	-4	16
6.	45	28.5	86	17	11.5	132.25
7.	60	13	98	1	12	144
8.	56	20	89	13.5	6.5	42.25
9.	38	35.5	63	35	0.5	0.25
10.	66	5	85	18	-13	169
11.	44	30	72	30	0	0
12.	39	34	56	38	-4	16
13.	48	27	84	19.5	7.5	56.25
14.	52	24	84	19.5	4.5	20.25
15.	59	15.5	65	33.5	-18	324
16.	76	2.5	96	2.5	0	0
17.	78	1	96	2.5	-1.5	2.25
18.	41	32.5	62	36.5	-4	16
19.	61	10.5	82	22	-11.5	132.25



20.	34	39	53	39	0	0
21.	58	17.5	79	26	-8.5	72.25
22.	38	35.5	48	40	-4.5	20.25
23.	62	9	89	13.5	-4.5	20.25
24.	49	26	90	12	14	196
25.	72	4	93	8.5	-4.5	20.25
26.	61	10.5	93	8.5	2	4
27.	63	7.5	88	18	-7.5	56.25
28.	59	15.5	91	11	4.5	20.25
29.	63	7.5	81	22.5	-16	256
30.	36	37	65	33.5	3.5	12.25
31.	34	39	62	36.5	2.5	6.25
32.	64	6	81	23.5	-17.5	306.25
33.	34	39	73	29	10	100
34.	56	20	83	21	-1	1
35.	60	13	95	4.5	8.5	72.25
36.	76	2.5	87	16	-13.5	182.25
37.	56	20	66	32	-12	144
38.	45	28.5	95	4.5	24	576
39.	60	13	94	6.5	6.5	42.25
40.	41	32.5	67	31	1.5	2.25

$$\Sigma D^2 = 3,584.5$$

$$r = 1 - \frac{6 \sum D^2}{N(N^2 - 1)}$$

$r$  = Rank Coefficient of Correlation

$\sum D^2$  = sum of the square of the differences of two ranks

$N$  = Total number of students

$$\sum D^2 = 3,584.5 ; N = 40$$

$$= 1 - \frac{6 \times 3584.5}{40(40 - 1)}$$

$$= 1 - \frac{21,507}{40(1600 - 1)}$$

$$= 1 - \frac{21507}{40 \times 1599}$$

$$= 1 - \frac{21507}{63960}$$

$$= 1 - 0.336$$

$$r = 0.664$$

The Coefficient of Correlation is 0.664. Here, it is Positive Rank Correlation.

# Histogram And Frequency Distribution

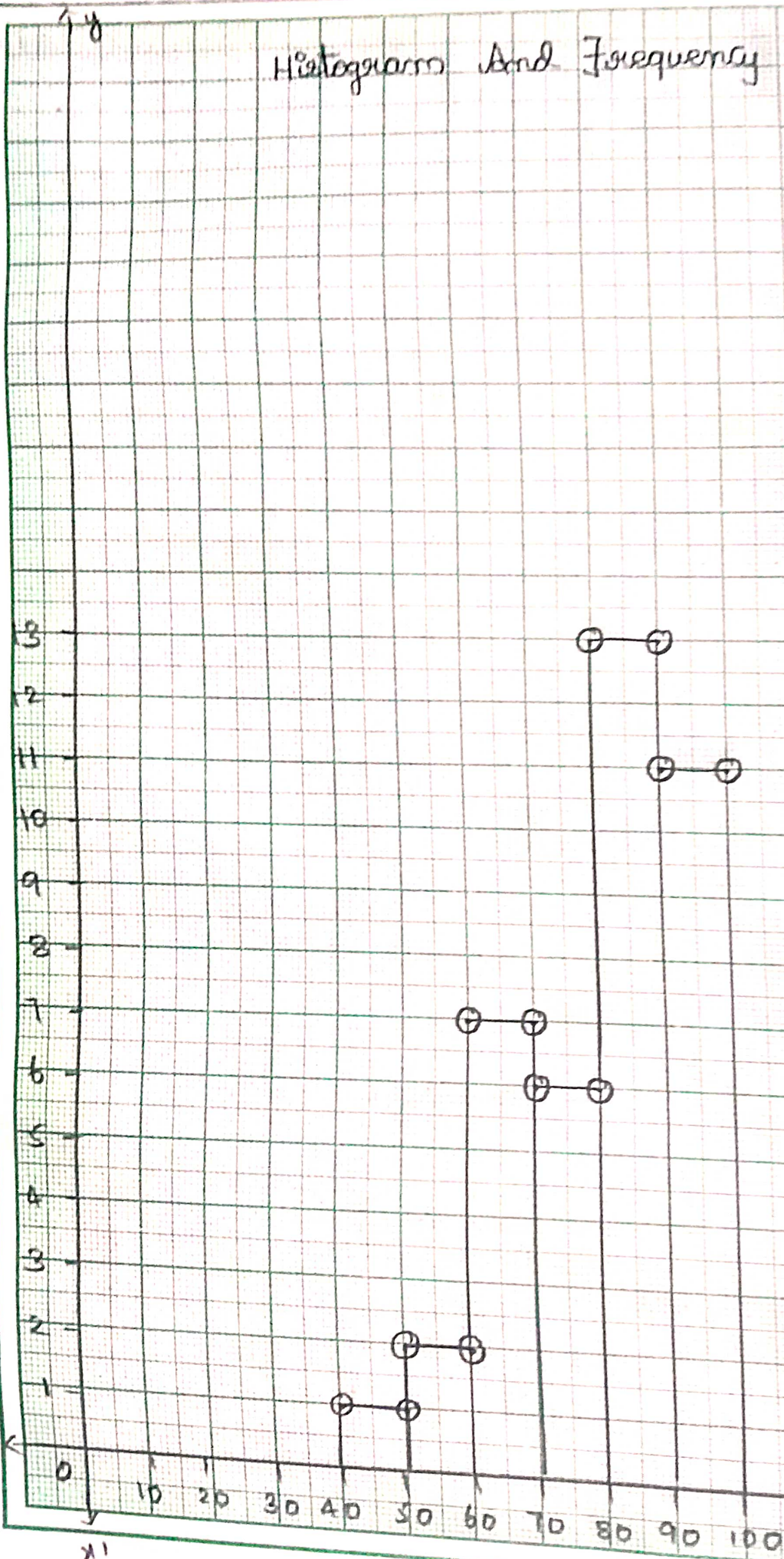
Scale:

x axis 1cm = 10 units

y axis 1cm = 1 unit

frequency

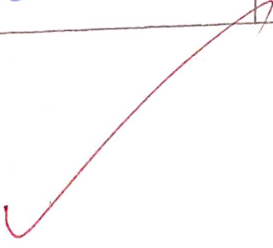
LF



class interval

## Histograms And Frequency Distribution

S.NO	Class Interval	Frequency
1.	41-50	1
2.	51-60	2
3.	61-70	7
4.	71-80	6
5.	81-90	13
6.	91-100	41

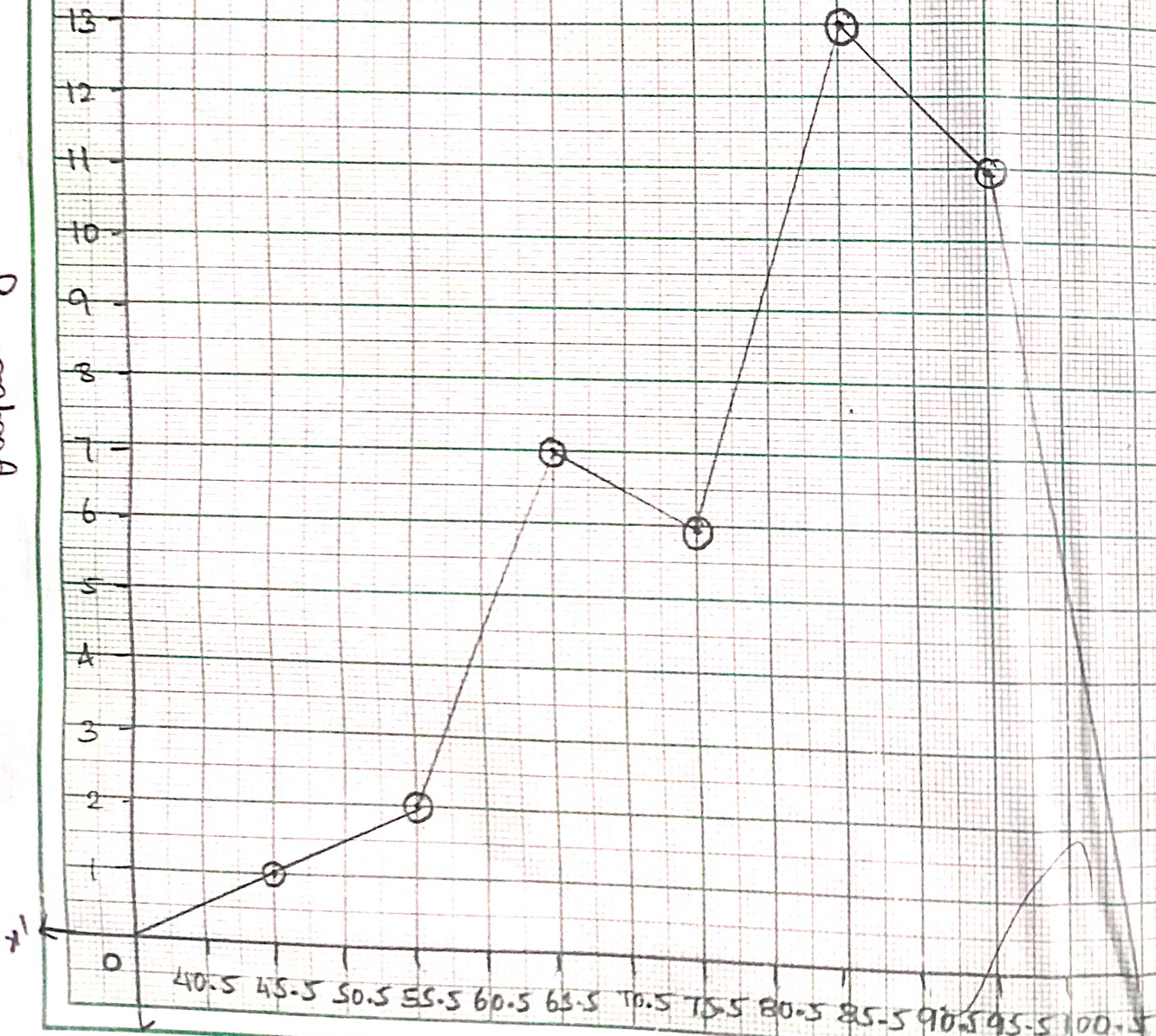


# Frequency Polygon

Scale:

x axis 1cm = 5 units

y axis 1cm = 1 unit



Pyrambani

Mid Point

## Frequency Polygon

S.NO	class Interval	Mid Point	Frequency
1.	41-50	45.5	1
2.	51-60	55.5	2
3.	61-70	65.5	7
4.	71-80	75.5	6
5.	81-90	85.5	13
6.	91-100	95.5	11

# Cummulative Frequency Curve

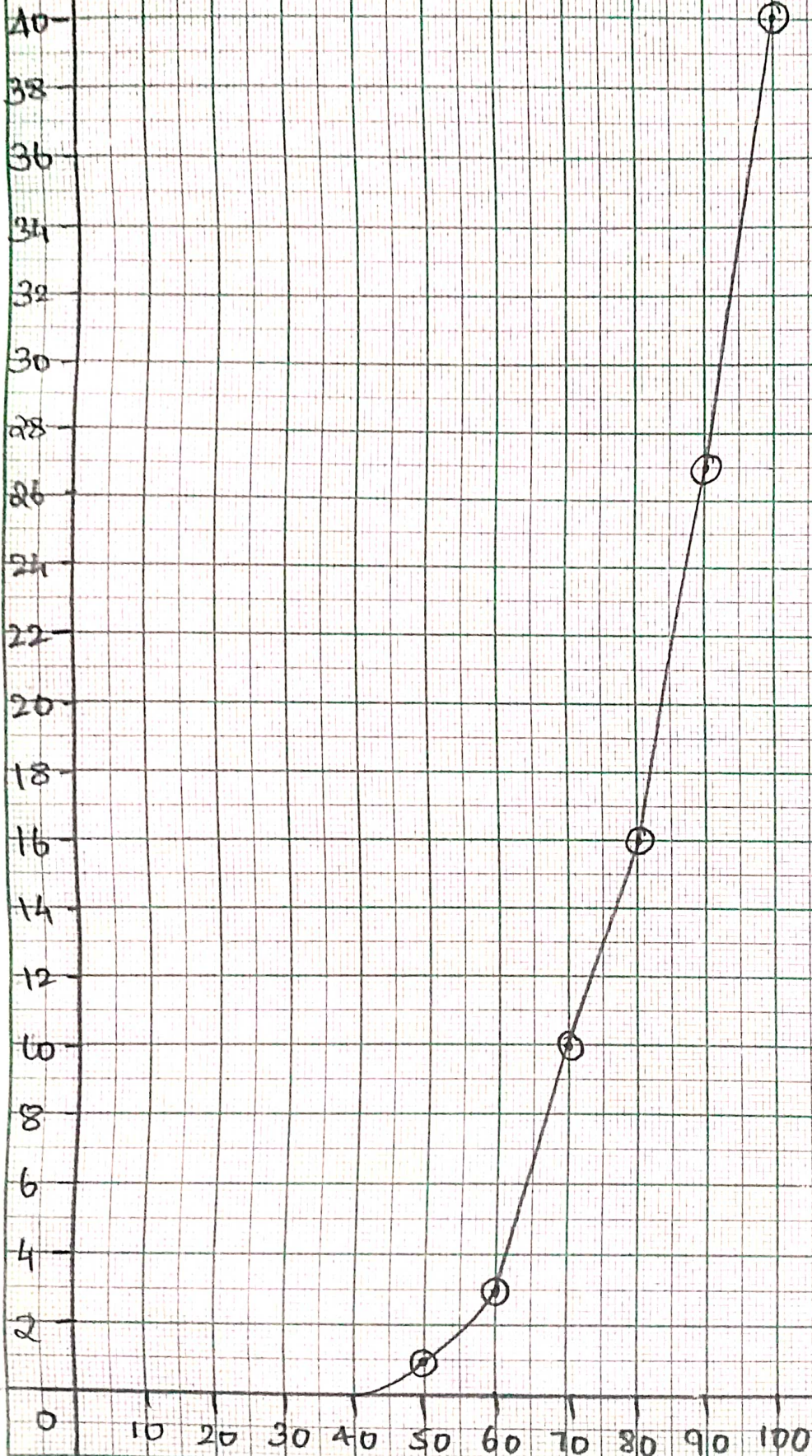
Scale:

x axis 1cm = 10 units

y axis 1cm = 2 units

Cummulative Frequency

cf

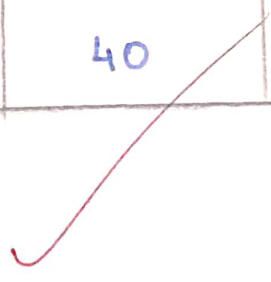


x

upper limit

# Cummulative Frequency Curves

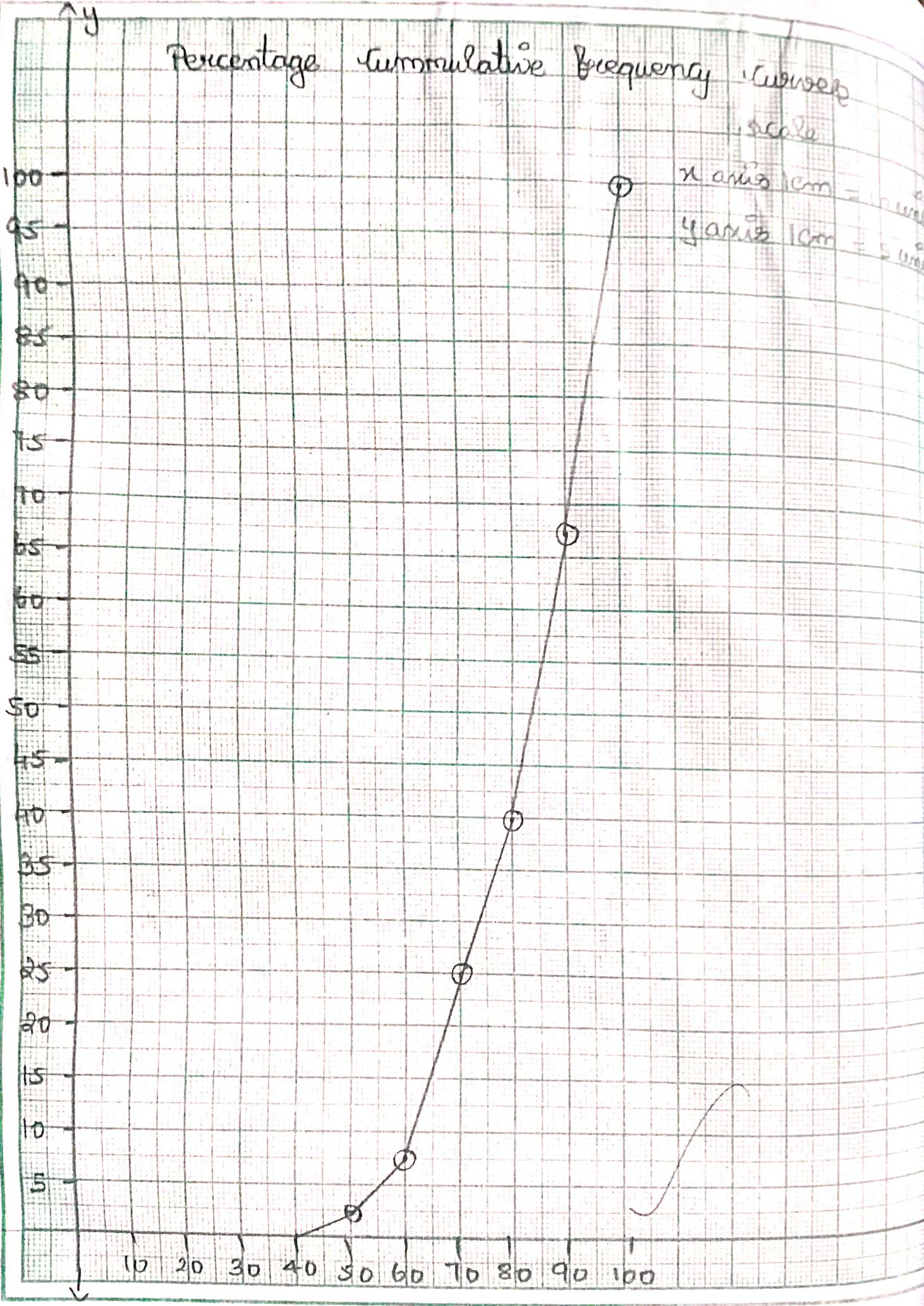
S.No	class interval	frequency	Cummulative frequency	UPPER limit
1.	41-50	1	1	50
2.	51-60	2	3	60
3.	61-70	7	10	70
4.	71-80	6	16	80
5.	81-90	13	27	90
6.	91-100	11	40	100





Percentage Cumulative Frequency Curve

Cumulative Frequency Percentage



upper limit

## Percentage Cumulative

### Frequency Curve

S.NO	class interval	frequency	Cummulative frequency	UPPER limit	Cummulative frequency Percentage
1.	41-50	1	1	50	3
2.	51-60	2	3	60	8
3.	61-70	7	10	70	25
4.	71-80	6	16	80	40
5.	81-90	13	27	90	68
6.	91-100	11	40	100	100

விருப்பப்பாடம்-2

தமிழ்

# திட்டவடிவம்

1. நோக்கங்கள் அடிப்படையில் மதிப்பீடுகள்

நோக்கங்கள்	மதிப்பீடுகள் [50]	மதிப்பீடுகள் [100]
அறிதது கொள்ளுதல்	06	12
யறிதது கொள்ளுதல்	24	48
பரராடடுதல்	08	16
திறன் வளர்த்தல்	12	24
<b>மொத்தம்</b>	<b>50</b>	<b>100</b>

2. பாடப்பொருள் அடிப்படையில் மதிப்பீடுகள்

பாடப்பொருள்	மதிப்பீடுகள் [50]	மதிப்பீடுகள் [100]
செய்யுள்	19	38
உரைநடை	11	22
கலைக்கணம்	20	40
<b>மொத்தம்</b>	<b>50</b>	<b>100</b>

3. வினாக்கள் ( அடைவுச்சீர்தரணை ) அடிப்படையில்  
மதிப்பெண்கள்

வினாக்கள்	மதிப்பெண்கள் [50]	மதிப்பெண்கள் [100]
4 நேர வினா	10	20
குறுவினா	16	32
சிறுவினா	16	32
நெடுவினா	08	16
<b>மொத்தம்</b>	<b>50</b>	<b>100</b>

4. கடினநிலை அடிப்படையில் மதிப்பெண்கள்

கடினநிலை	மதிப்பெண்கள்		சதவீதம்
	50	100	
எளிமை	16	32	32%
நடுநிலை	20	40	40%
கடினம்	14	28	28%
<b>மொத்தம்</b>	<b>50</b>	<b>100</b>	<b>100%</b>

# திட்டப்படம்

நாகரீகங்கள்	அறிந்து கொள்ளுதல்				பரிந்து கொள்ளுதல்				பாடமுதல்				நிறன் ஊர்ந்தல்				மொத்தம்			
	4 னி	கு னி	சி னி	நெ னி	4 னி	கு னி	சி னி	நெ னி	4 னி	கு னி	சி னி	நெ னி	4 னி	கு னி	சி னி	நெ னி	4 னி	கு னி	சி னி	நெ னி
பாடப்பொருள்	1(2)	2(1)	-	-	1(3)	2(1)	4(1)	-	-	-	-	-	-	-	-	-	-	-	-	-
செய்யுள்	1(2)	-	-	-	1(1)	2(1)	-	-	-	4(1)	-	-	-	-	-	-	-	-	-	-
உரைநடை	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
இலக்கணம்	-	-	-	8(1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>மொத்தம்</b>	<b>6</b>	<b>6</b>	<b>24</b>	<b>8</b>	<b>24</b>	<b>8</b>	<b>12</b>	<b>12</b>	<b>50</b>	<b>12</b>	<b>50</b>	<b>12</b>	<b>50</b>	<b>12</b>	<b>50</b>	<b>12</b>	<b>50</b>	<b>12</b>	<b>50</b>	<b>12</b>

சேலம் நகராட்சி மகளிர் மேல்நிலைப்பள்ளி, குகை

நேரம்: 1½ மணி

மதிப்பெண்: 50

10×1=10

பாடம்: தமிழ்

வகுப்பு: பத்தாம் வகுப்பு

கோடிட்ட இடத்தை பிறப்புக்:

1. காந்தியடிகள் "சத்தியாகிரகம்" என்னும் அறப்போர் முறையை தொடங்கிய ஆண்டு\_\_\_\_\_

அ. 1806 ஆ. 1906 இ. 1916 ஈ. 1919

2. "மாமலர்" - இலக்கணக் குறிப்பு தருக

அ. வினைத்தொகை ஆ. தொழில் பெயர்

இ. உரிச்சொல் தொடர் ஈ. வினையாலனையும் பெயர்

3. பொன்னர் பூட்டுதல் நடத்தப்படும் மாதம்\_\_\_\_\_

அ. சித்திரை ஆ. ஆனி இ. ஆடி ஈ. தை

4. பாடாண்திணை பிரித்து எழுதுக

அ. பாடாண்+திணை ஆ. பாடாண்+ஆண்+திணை

இ. பாடு+ஆண்+திணை ஈ. பாட+ஆண்+திணை

5. படத்தில் இடம்பெற்றுள்ள பூ எவ்வகைத் திணைக்கு உரியது?

அ. வெச்சித் திணை

ஆ. வஞ்சித்திணை

இ. நொச்சித்திணை

ஈ. வாகைத்திணை



6. மேன்மை தரும் அறம் என்பது\_\_\_\_\_

அ. கைமாறு கருதாமல் அறம் செய்வது

ஆ. மறுபிறப்பில் பயன்பெறாமல் என்ற நோக்கில் அறம் செய்வது

இ. புகழ் கருதி அறம் செய்வது

ஈ. பதில் உதவி பெறுவதற்காக அறம் செய்வது

7. "விட்டை துடைத்து சாயம் அடித்தல்" இவ்வடி குறிப்பிடப்படுவது\_\_\_\_\_

அ. காலம் மாறுவதை ஆ. விட்டை துடைப்பதை

இ. வண்ணம் பூசுவதை ஈ. இடையறாது அறப்பணி செய்தல்

8. உலகமே வறுமையுற்றிலும் கொடுப்பவன் என்றும் பொருள்களின் இருப்பைக் கூட அறியாமல் கொடுப்பவன் என்றும் பாராட்டப்படுவோர்\_\_\_\_\_

அ. உதியன்: சேரலாதன்

ஆ. அதின்: பெரும்பான்மைப்

இ. பேகன்: கிள்ளிவளவன் ஈ. நெடுஞ்செழியன்: திருமுடி கட்காரி

9. காலக்கணிதம் கவிதையில் இடம்பெற்ற தொடர்\_\_\_\_\_

அ. இகழ்ந்தால் என்மனம் இறந்துவிடாது

ஆ. என்மனம் இகழ்ந்தால் இறந்துவிடாது

இ. இகழ்ந்தால் இறந்துவிடாது என்மனம்

ஈ. என்மனம் இறந்துவிடாது இகழ்ந்தால்

10. சிலப்பதிகாரத்திலும் மணிமேகலையிலும் அமைந்துள்ள பாவினம்\_\_\_\_\_

அ. அகவற்பா ஆ. வெண்பா இ. வஞ்சிப்பா ஈ. கலிப்பா

குறுவினா:

11. பாசவர், வாசவர், பல்நிண விலைஞர், உமணர் - சிலப்பதிகாரம் காட்டும் இவ்வணிகர்கள் யாவர்?

12. மயங்கிய - பகுபத உறுப்பிலக்கணம் தருக.

13. நொச்சித்திணை என்றால் என்ன?

14. கலைச்சொற்கள்

அ. Consulate ஆ. Irrigation இ. Belief ஈ. Renaissance

15. அவையம் - குறிப்பு வரைக

16. போர் அறம் பற்றி சிறுகுறிப்பு எழுதுக

17. குறள்வெண்பாவின் இலக்கணத்தை எழுதி எடுத்துக்காட்டு தருக

18. காலக் கழுதை கட்டெறுமானதும் கவிஞர் செய்வது யாது?

சிறுவினா

19. "தலையைக் கொடுத்தேனும் தலைநகரைக் காப்போம்" -இடஞ்சுட்டி பொருள் விளக்குக.

20. "தூசும் துகிரும்" - எனத் தொடங்கும் சிலப்பதிகாரம் மனப்பாடச் செய்யுளை எழுதுக.

21. அலகிட்டு வாய்ப்பாடு தருக

செயற்கை அறிந்தக் கடைத்தும் உலகத்

தியற்கை அறிந்து செயல்.

22. கொடையின் சிறப்பை இலக்கியங்கள் எவ்வாறு போற்றுகின்றன.

நெடுவினா

23. அ. புறத்திணை வகைகளை அட்டவணை மூலம் விளக்குக.

ஆ. வெண்பா, ஆசிரியப்பா ஆகியவற்றின் பொது இலக்கணத்தை அட்டவணை எழுதுக

8x2=16

4x4=16

8x1=8

மூலம்



## விடைகள்

காடிபட்ட இடத்தை நிறுப்புக:

1. 1906
2. உரிச்சொல் தொட்டி
3. சித்திரை
4. பாடு + ஆண் + திணை
5. வாகைத் திணை
6. கைமாலு கருதாமல் அறம் செய்வது
7. இடையறாது அறப்பண் செய்தல்
8. அதியன் : பெருநீச்சித்திரனார்
9. இகழ்ந்தால் என்மனம் இறந்ததுவிடாது
10. அகவநீபா

குறுவினா :

11. பாசுவர் - வெற்றிவை விநீபவர்
- வாசுவர் - நறுமண பொருட்களை விநீபவர்
- பலநிறை விலைநர் - குறைகிகளை விநீபவர்
- உமணர் - உப்பு விநீபவர்

12. மயங்கிய - மயங்கு + இ(ன்) + ய் + அ

மயங்கு - பகுத்

இ(ன்) - அறந்தகால இடைநிலை

ய் - உடன்படுமெய்

அ - பெயரெச்சி விகுத்

13. மண்ணைக் காக்கக் கோட்டைகள் கட்டப்படன

கோட்டையைக் காத்தல் வேண்டி, உள்ளிருந்தே முநியுக்கையிட்ட  
பகையரசனோடு நொச்சிப்புவைச் சூழப் போயிருவது  
நொச்சித்திணை அகும்.

14. அ. Consulate - துணைத்தூதரகம்

ஆ. Investigation - பாசனம்

இ. Belief - நம்பிக்கை

ஈ. Renaissance - மறுமலர்ச்சி

15. \* அறம் கடறும் மன்றங்கள் அரளிள் ஆட்கிக்குத்

துணை புரிந்தன.

\* மதுரையிலிருந்து அவையம் பற்றி மதுரைக்

காங்கு குறிப்பிடுகிறது.

\* மதுரை அமைவயம் சூலாபீகாலை போல்  
நடுநிலை மிக்கது.

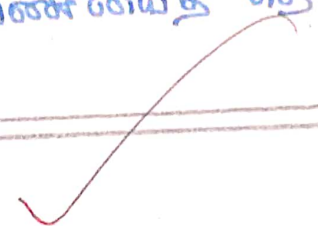
16. தமிழர் போர் செய்வதிலும் அறநெறி உடையவர்களாக  
இந்தனர். போர் அறம் என்பது, வீரமந்திரம்,  
கீறம், முதியோர் போன்றவற்றை எதிர்நீத்து போர்  
செய்யாமல் இருப்பது.

17. குறள் வெண்பா என்பது வெண்பாவின் பொது  
இயக்கணம் அமைப்பி பெற்று இரண்டு அடிகளாய்  
உடும். முடிவு நான்கு சீராகவும், இரண்டாம் அடி  
முன்று சீராகவும் உடும்.

(எ-கா) கற்க கசுற கற்பவை கற்றபின்  
நிற்க அதற்கு தக.

18. \*காலகீகமுதை கட்பெறும்பானது என்பது காலம்  
மாந் உயது முதிர்ந்ததைக் குறிப்பது ஆகும்.

\* உயது முதிர்ந்தது உடலும் உடல் உறுப்புகளும்  
உலுவிழ்ந்தாலும் அறப்பணியைத் தொடர்ந்து செய்கிறார்.



திரிபுரணா

14. **இடம் :** "ம.பொ.சி" யின் தன் உரலாற்றும் பகுதியில் சிற்றகல் ஒள் எண்ணும் தலைப்பில் இடம் பெற்றுள்ளன.

**பொருள் :** ஆதிதிர மாநிலம் பிரியும்போது சென்னை தான் அதன் தலைநகராக இருக்க வேண்டும் என்று ஆதிதிர மாநிலத் தலைவர்கள் விரும்பினர். அதனை எதிர்க்கும் ம.பொ.சி கூறிய கூற்று இது.

**விளக்கம் :** தந்தை செங்கல்வராயன் ஒரு கூட்டத்தகை கூடினர். அப் பொழுது, தம்மு் மாநிலத்தின் தலைநகர் "சென்னை" என்று தீர்மானத்தை முன்மொழிந்தனர். முன்மொழிந்தது, "தலைநகராக ரிகாடுத்தேனும் தலைநகராக காப்போம்" என்று ம.பொ.சி முடிவாகினார். 25.03.1953 இல் பிரதமர் நேடு , சென்னை தம்முட்க்கே என்ற உறுதிமொழியை , நாடாளுமன்றத்தில் நடுவண்புகள் சார்பில் வெளியிட்டார்.



20. சூதம் சூகிரம் ஆரமு அகிலும்  
 மாசஅறு முத்தும் மணியும் பொண்ணும்  
 அருங்கல வெறுக்கையொடு அளந்துகடை அந்யா  
 ஊமீதலை மயங்கிய நனந்தலை மறுகும்;  
 பாலங்கை தெரிந்திது பகுதிப் பண்டமொடு;  
 கூலம் குவிந்த கூல வீதியும்.

- இளங்கோவழகர்

- 21. செயற்கை - நிரை + நோர் - 4 ஈர்மா
- அறிந்தக - நிரை + நோர் - 4 ஈர்மா
- கடைத்தும் - நிரை + நோர் - 4 ஈர்மா
- உலகத் - நிரை + நோர் - 4 ஈர்மா
- தியற்கை - நிரை + நோர் - 4 ஈர்மா
- அறிந்தி - நிரை + நோர் - 4 ஈர்மா
- செயல் - நிரை - 4 ஈர்மா

22. வீரத்தைப் போலவே கொடையும் தமிழர்களால்  
 உரும்பப்படலது - ஒரு மணி தன் தன்னுடைய மகிழ்ச்சியை  
 மறுத்தி மறந்தவர் மகிழ்ச்சியை நாடுவதுதான் உண்மையான



மகிழ்ச்சி. அதாவது தான் மகிழ்ச்சியை நாடுவதுதான்  
 உண்மையான மகிழ்ச்சி. அதாவது தான் மகிழ்ச்சியை  
 மறப்பதுதான் மகிழ்ச்சி. அரியணை எண்பது கருதாது,  
 தயங்காது கொடுத்தாலும் எ.தலாஹி உரும்  
 சிவப்புகீடு வகுந்தாமையுமீ நான்தோறும் கொடுத்தாலும்  
 கொடைப்பெருமைகளாகப் பேசப்படுகின்றன.

3. அ)

- வெட்சி திணை - ஆநிறை கவந்தல்
- கரந்தைத் திணை - ஆநிறை மீட்டல்
- வந்தித் திணை - மண்ணாசை காரணமாகப் பனகவரீ  
 - நாட்டைக் கைப்பற்றுதல்
- காந்தித் திணை - மாற்றரசனோடு எதிர்த்துப் போரிடல்
- நொச்சித் திணை - கோட்டையின் உள்ளிடுந்தே  
 போரிடல்
- உழுநெய்த் திணை - கோட்டையினை சுற்றி வளைத்தல்
- துய்ப்பைத் திணை - கருநாட்டு அரசர்களும் ஒருவரோடு  
 ஒருவர் போர்புர்தல்
- வானகத்திணை - வெற்றி பெற்ற மண்ணை மகிழ்வது.

பாடாணி திணை - ஆண்பகணின் வீரம், கவீகி,  
செல்வம், புகழ், கருணை முதலியன  
பொற்றிபாடுவது

பொதுவியல் திணை - வெட்சி. முதல் பாடாணி வரை  
பொதுவானதும் கூறப்படாதனவும்.

பொது விக்கணம்	வெண்பா	ஆசிரியப்பா
ஓசை	செப்பல் ஓசை பெற்று வரும்.	அகவல் ஓசை பெற்று வரும்.
ஓர்	அடிகள் நான்கீராகவும் பயின்றவரும். இயந்தீர் வெண்கீர் மட்டுமே பயின்ற வரும்.	ந.ஓசை சீர் மிகுதியாகவும் காய்ச்சீர் குறைவாகவும் பயின்றவரும்.
தளை	இயந்தீர் வெண் டளை, வெண்கீர் வெண்டளை மட்டுமே பயின்றவரும்	ஆசிரியத்தளை மிகுதியாக -வும் வெண்டளை கலித்த -ளை விரவியும் வரும்.
அடி	வெண்டடி முதல் பன்னிரண்டு அடி வரை அமையும்	ஆன்று அடி முதல் எட்டு பவர் மனநினைக்கீகற்ப அமையும்
முடிபடி	ந.ஓசை சீர் நான்கு, மலர், காசு, மறுபடி எனவும் வாய்ப்பாடாடல் முடியும்	ஏகாபுத்தில் முடிதல் சிறப்பும்

# மதிப்பெண் பட்டியல்

அரசா எண்	பெயர்	மதிப்பெண்கள் [50]	மதிப்பெண்கள் [100]
1.	அகலியா. M	34½	69
2.	அகீஷா. M	30	60
3.	தர்ஷினி. S	37	74
4.	பாதித்ரிமா. R	18	36
5.	பாஸலீசியா. S	27½	55
6.	கோபிகா. K	21½	43
7.	அதித்யா. S	37	74
8.	ஜனனி. V	42½	85
9.	ஜெயபதி. A	32	64
10.	கீர்த்திகா. P	31½	63
11.	லக்ஷ்மி. R	34½	69
12.	லக்ஷ்மி. S	25½	51
13.	மணிஷா. A	18½	37
14.	மாநியம்மாள். G	32	64
15.	நவசக்தி. A	37	74
16.	ஸ்ரீநிவாஸினி. K	45½	91
17.	பவத்ரி. P	28	56
18.	பாநியத்ரிஷா. M	41½	83



19.	குதீரா. R	$29\frac{1}{2}$	59
20.	சுகீதி ஸ்தீ. M	$43\frac{1}{2}$	87
21.	சுான்யா. B	26	52
22.	சுரஸீவதி. Y	20	40
23.	சுண்முகபீரியா. S	23	46
24.	செளமியா. N	27	54
25.	ஸ்தீ ரெடியவரீஷன். S	$28\frac{1}{2}$	57
26.	ஸ்தீ நவீயா. V	$29\frac{1}{2}$	59
27.	சுவாதீ. D	39	78
28.	விஷ்ணுபீரியா. S	$23\frac{1}{2}$	47
29.	விதீயா. M	$25\frac{1}{2}$	51
30.	மோன்கா. V	$46\frac{1}{2}$	93

# அலைவெண் பட்டியல்

69, 60, 74, 36, 55, 43, 74, 85, 64, 63, 69,  
 51, 37, 64, 74, 91, 56, 83, 59, 87, 52, 40,  
 46, 54, 57, 59, 78, 47, 51, 93

பரிசு இடைவெளி	நேரீகீகோடல் குறிகள்	அலைவெண் f
31 - 40		3
41 - 50		3
51 - 60		10
61 - 70		5
71 - 80		4
81 - 90		3
91 - 100		2
		30

വരിയ ക്ലാസ്സുകൾ	മധ്യസ്ഥിതി $x$	$f$	$cf$	$d = \frac{x-A}{9}$	$d^2$	$fd$	$fd^2$
31-40	35.5	3	3	-3	9	-9	27
41-50	45.5	3	6	-2	4	-6	12
51-60	55.5	10	16	-1	1	-10	10
61-70	65.5	5	21	0	0	0	0
71-80	75.5	4	25	1	1	4	4
81-90	85.5	3	28	2	4	6	12
91-100	95.5	2	30	3	9	6	18

$\sum fd = -10$      $\sum fd^2 = 83$

$\sum f = 30$



## மையப்போக்கு அளவைகள்

1) கூட்டுச்சராசர் ( $\bar{x}$ )

$$\bar{x} = A + \left[ \frac{\sum fd}{\sum f} \right] \times i$$

A - கருப்பெண் சராசர்

$\sum fd$  - மொத்த நிலகல் பெருக்கல் அலைவெண்

$\sum f$  - அலைவெண்

i - இடைவெளி

$$A = 65.5 ; \quad \sum fd = -10 ; \quad \sum f = 30 ; \quad i = 10$$

$$= 65.5 + \left[ \frac{-10}{30} \right] \times 10$$

$$= 65.5 - 0.33 \times 10$$

$$= 65.5 - 3.33$$

$$\boxed{\bar{x} = 62.17}$$

மீட்டர் இடைநிலை ( $M_n$ )

$$M_n = l + \left[ \frac{\frac{N}{2} - cf}{f} \right] \times i$$

$l$  = சராசரி அகலம் கீழ்க் குறியீடு

$cf$  = குறைந்த நிகழ்வெண்

$f$  = நிகழ்வெண்

$i$  = அகலம் இடைவெளியின் அகலம்

$$l = 50.5 ; \quad \frac{N}{2} = \frac{30}{2} = 15 ; \quad cf = 6$$

$$f = 10 ; \quad i = 10$$

$$= 50.5 + \left[ \frac{15 - 6}{10} \right] \times 10$$

$$= 50.5 + \left[ \frac{9}{10} \right] \times 10$$

$$= 50.5 + 0.9 \times 10$$

$$= 50.5 + 9$$

$$M_n = 59.5$$

iii) முகடு ( $M_d$ )

$$\text{முகடு} = 3 \times \text{கிடைநிலை} - 2 \times \text{சராசர்}$$

$$\text{கிடைநிலை} = 59.5 \quad ; \quad \text{சராசர்} = 62.17$$

$$= 3 \times 59.5 - 2 \times 62.17$$

$$= 178.5 - 124.34$$

$$M_d = 54.16$$

# சிதறல் அளவைகள்

## i) ஊசீசு

$$\begin{aligned} \text{ஊசீசு} &= \text{உயர் மதிப்பெண்} - \text{குறைவான மதிப்பெண்} \\ &= 93 - 36 \end{aligned}$$

$$\text{ஊசீசு} = 57$$

## ii) காலமான விலக்கம் (Q.D)

$$Q.D = \frac{Q_3 - Q_1}{2}$$

$$Q_3 = l_3 + \left[ \frac{\frac{3N}{4} - cf}{f} \right] \times i$$

$$Q_1 = l_1 + \left[ \frac{\frac{N}{4} - cf}{f} \right] \times i$$

## Q<sub>3</sub> இன் மதிப்பு கண்டறிதல்;

$l_3$  = இடைநிலையளவின் கீழ் எல்லை

$c_f$  = குவிவு நிகழ்வெண்

$f$  = நிகழ்வெண்

$i$  = வகுப்பு இடைவெளியின் அகலம்

$$l_3 = 70.5 ; \frac{3N}{4} = \frac{3 \times 30}{4} = 22.5 ; cf = 21$$

$$f = 4 ; \bar{x} = 10$$

$$Q_3 = 70.5 + \left[ \frac{22.5 - 21}{4} \right] \times 10$$

$$= 70.5 + \left[ \frac{1.5}{4} \right] \times 10$$

$$= 70.5 + 0.375 \times 10$$

$$= 70.5 + 3.75$$

$$Q_3 = 74.25$$

Q. இன் மதிப்பு கண்டறிதல்

$l_1$  = அடைநிலையளவின் கீழ் எல்லை

$l_3$  = குறைந்த நிகழ்வெண்

$f$  = நிகழ்வெண்

$\bar{x}$  = மதிப்பு அடைவெளியின் அகலம்

$$l_1 = 50.5 ; \frac{N}{4} = \frac{30}{4} = 7.5 ; cf = 6$$

$$f = 10 ; \bar{x} = 10$$



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$$Q_1 = 50.5 + \frac{(7.5 - 6)}{10} \times 10$$

$$= 50.5 + \left(\frac{1.5}{10}\right) \times 10$$

$$= 50.5 + 0.15 \times 10$$

$$= 50.5 + 1.5$$

$$Q_1 = 52$$

$$Q_D = \frac{Q_3 - Q_1}{2}$$

$$Q_3 = 74.25$$

$$Q_1 = 52$$

$$= \frac{74.25 - 52}{2}$$

$$= \frac{22.25}{2}$$

$$Q_D = 11.125$$

iii) திட்ட விலக்கம் ( $\sigma$ )

$$\sigma = \sqrt{\frac{\sum fd^2}{\sum f} - \left[\frac{\sum fd}{\sum f}\right]^2} \times i$$

$\sum fd^2$  = சதுரக்கம் மொத்த விலக்கல் பெருக்கல் அலைவெண்

$\sum fd$  = மொத்த விலக்கல் பெருக்கல் அலைவெண்

$\sum f$  = அலைவெண்

$i$  = இடைவெளி

$$\sum fd^2 = 83 ; \quad \sum fd = -10 ; \quad \sum f = 30 ; \quad i = 10$$

$$= \sqrt{\frac{83}{30} - \left[\frac{-10}{30}\right]^2} \times 10$$

$$= \sqrt{2.766 - \left[\frac{-1}{3}\right]^2} \times 10$$

$$= \sqrt{2.766 - \frac{1}{9}} \times 10$$

$$= \sqrt{2.766 - 0.11} \times 10$$

$$= \sqrt{2.655} \times 10$$

$$= 1.629 \times 10$$

$$\sigma = 16.29$$

உருப்படி பகுப்பாய்வு

S.NO	பெயர்	1	2	3	4	5	6	7	8	9	10
1.	மோன்கா-V	1	0	0	1	0	1	1	1	1	1
2.	சுவியமரியாக	0	0	0	1	1	1	1	1	1	1
3.	சக்திஸ் . M	1	1	0	1	0	1	1	0	1	0
4.	ஜனன் . V	0	0	1	1	1	1	1	1	1	1
5.	மரியதரிஜன் . N	0	0	0	1	0	1	1	0	1	1
6.	சுவாதி . D	0	1	1	1	0	1	1	1	1	0
7.	நயசகீதி . A	0	0	0	1	0	1	1	1	1	0
8.	தரிஜின் . S	0	0	0	1	1	1	1	0	1	1
9.	ஜிதிஜுஜா . S	0	0	1	1	1	1	1	1	0	0
10.	லாகண்டாயா . R	0	0	0	1	0	1	0	0	1	1
		2	2	3	10	4	10	9	6	9	6

S.NO	பெயர்	1	2	3	4	5	6	7	8	9	10
21.	செளந்தியா. N	0	0	0	1	0	0	1	1	1	1
22.	சாண்டியா. B	0	0	0	0	0	0	1	1	1	1
23.	லோனாந்தியா. S	1	0	0	1	0	1	0	1	1	0
24.	வித்யா. N	0	0	0	1	0	1	0	0	1	1
25.	விஷ்ணுபிரியா. S	1	0	0	1	1	0	0	0	1	0
26.	சுனிசுகமியா. S	1	0	1	0	1	1	0	0	1	0
27.	கோமகா. K	0	0	1	1	1	1	1	1	1	0
28.	சுஸ்மதி. Y	1	0	1	1	0	1	1	1	1	0
29.	மன்ஜா. A	0	0	0	1	1	1	0	0	1	0
30.	பாதித்யா. R	1	0	0	0	0	0	1	1	1	0
		5	0	3	7	4	6	5	6	10	3

## கடினத்தன்மை குறியீடு

$$N_H = N_L = 10$$

வினா எண்	$R_H$	$R_L$	$\frac{R_H + R_L}{N_H + N_L} \times 100$
1.	2	5	35
2.	2	0	10
3.	3	3	30
4.	10	7	85
5.	4	4	40
6.	10	6	80
7.	9	5	70
8.	6	6	60
9.	9	10	95
10.	6	3	45

$R_H$  = உயர் அடைவுக் குழுமம்

$R_L$  = கீழ் அடைவுக் குழுமம்

- i) 20% கீழ் இருந்தால் கடின வினா (1)
- ii) 20 - 80% க்குள் இருந்தால் நடுத்தரமான வினா (7)
- iii) 80% க்கு மேல் இருந்தால் ஈர்ய வினா (2)

# பரிசீலனை குறியீடு

$$N_H = 10$$

வரிசை எண்	$R_H$	$R_L$	$\frac{R_H - R_L}{N_H}$
1.	2	5	-0.3
2.	2	0	0.2
3.	3	3	0
4.	10	7	0.3
5.	4	4	0
6.	10	6	0.4
7.	9	5	0.4
8.	6	6	0
9.	9	10	-0.1
10.	6	3	0.3

i) 0.19 க்கு கீழ் இருந்தால் வினாளை நீக்க வேண்டும் (5)

ii) 0.20 - 0.29 க்குள் இருந்தால் வினாளை தடுத்த அமைக்கலாம் (1)

iii) 0.30 - 0.39 க்குள் இருந்தால் நல்ல வினா சிறப்பு

மாற்ற அமைக்கலாம் (2)

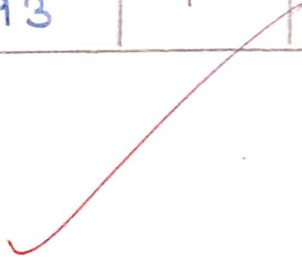
iv) 0.40 க்கு மேல் இருந்தால் நல்ல வினா (2)

വിവിധ പേജ് നമ്പർ ആ ഒറ്റ-ഒറ്റയ്ക്ക് ഒരു

പേജ് നമ്പർ	പേജ് 1	R <sub>1</sub>	പേജ് 2	R <sub>2</sub>	D = R <sub>1</sub> - R <sub>2</sub>	D <sup>2</sup>
1.	67	11	69	10.5	0.5	0.25
2.	58	16.5	60	15	1.5	2.25
3.	76	7	74	8	-1	1
4.	33	30	36	30	0	0
5.	57	18.5	55	20	1.5	2.25
6.	44	26.5	43	27	1.5	2.25
7.	72	8.5	74	8	0.5	0.25
8.	87	4	85	4	0	0
9.	63	12	64	12.5	-0.5	0.25
10.	60	14.5	63	14	0.5	0.25
11.	68	10	69	10.5	0.5	0.25
12.	50	23.5	51	23.5	0	0
13.	35	29	37	29	0	0
14.	60	14.5	64	12.5	2	4
15.	72	8.5	74	8	0.5	0.25
16.	95	1	91	2	-1	1
17.	55	21	56	19	2	4
18.	83	5	83	5	0	0
19.	57	18.5	59	16.5	2	4

20.	42	2	87	3	-1	1
21.	50	23.5	52	22	0.5	0.25
22.	41	28	40	28	0	0
23.	47	25	46	26	-1	1
24.	52	22	54	21	1	1
25.	58	16.5	57	18	1.5	2.25
26.	61	13	59	16.5	2.5	5.0625
27.	79	6	78	6	0	0
28.	44	26.5	47	25	1.5	2.25
29.	56	20	51	23.5	3.5	12.25
30.	88	3	93	1	2	4

$\Sigma D^2 = 49.3125$





$$P = 1 - \frac{6 \sum D^2}{N(N^2 - 1)}$$

$\sum D^2$  = வகீகரிக்கப்பட்டவர்களின் கட்டுதல்

$N$  = மொத்த மாணவர்களின் எண்ணிக்கை

$N = 30$

$\sum D^2 = 49.3125$

$$P = 1 - \frac{6 \times 49.3125}{30(30^2 - 1)}$$

$$= 1 - \frac{295.875}{30(900 - 1)}$$

$$= 1 - \frac{295.875}{30 \times 899}$$

$$= 1 - \frac{295.875}{26,970}$$

$$= 1 - 0.01097$$

$P = 0.989$

இரு பாலங்களும் ( $S_1$  &  $S_2$ ) இடையே மிக

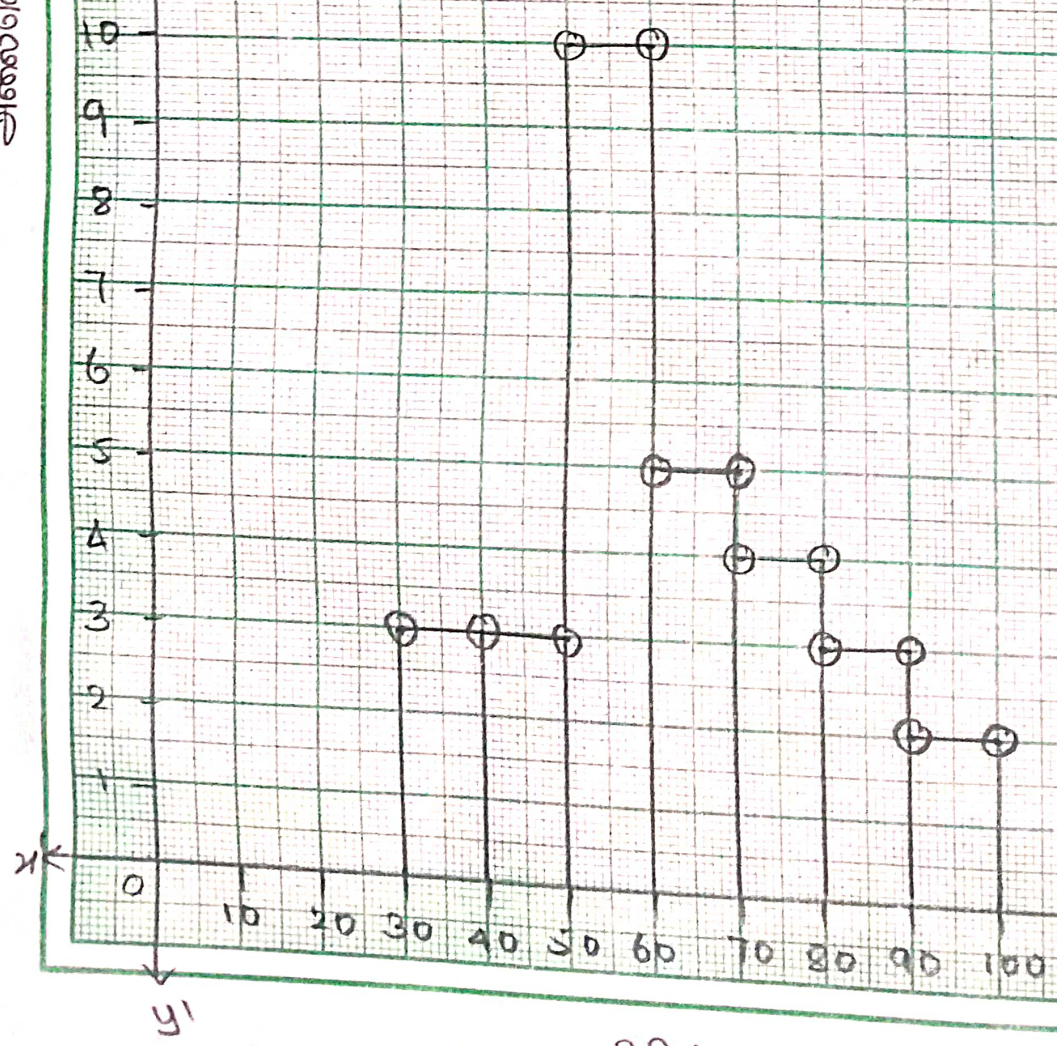
குறைவான நேர்மறை சூட்டுறவு உள்ளது.

செலிவாக உரையிடும் மந்திரம் அலைவெண் உரைப்பு

அளவுகூதியிடும்

x அச்சு 1 செ.மீ = 10 அலகுகள்  
 y அச்சு 1 செ.மீ = 1 அலகு

அலைவெண்



பரிமா அலைவெண்

செவ்வக வரையடம் மற்ரும் அலைவெண்

வளைவு

வரிசை எண்	பரிவு இடைவெண்	f
1.	31 - 40	3
2.	41 - 50	3
3.	51 - 60	10
4.	61 - 70	5
5.	71 - 80	4
6.	81 - 90	3
7.	91 - 100	2

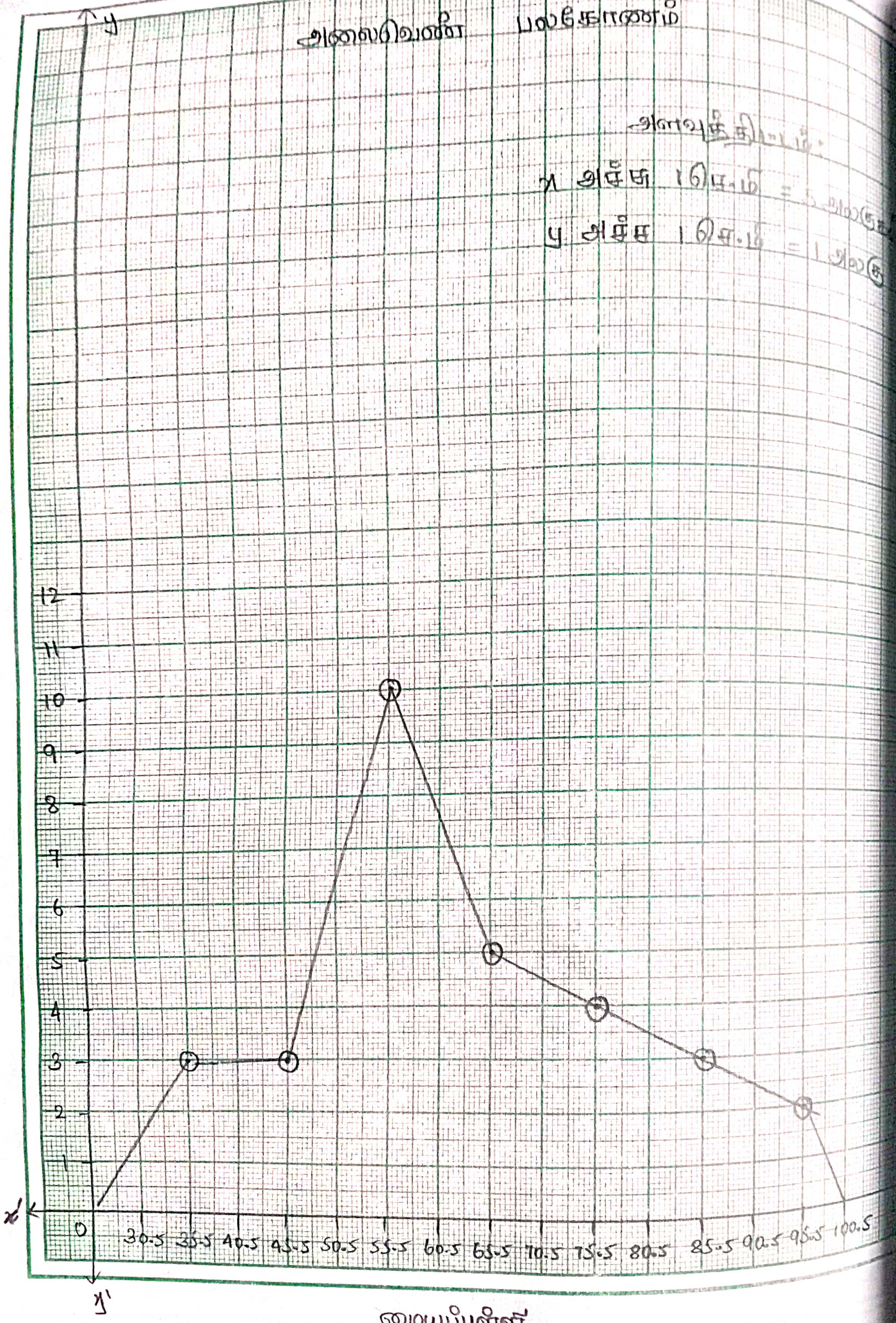
அலைவண்ண பலகாணம்

அளவுக்கூறல்:

x அச்சம் 1 செ.மீ = 5 அலைவண்ணம்

y அச்சம் 1 செ.மீ = 1 அலைவண்ணம்

அலைவண்ணம்



அலைவண்ணம்

## அலைவெண் பல கோணம்

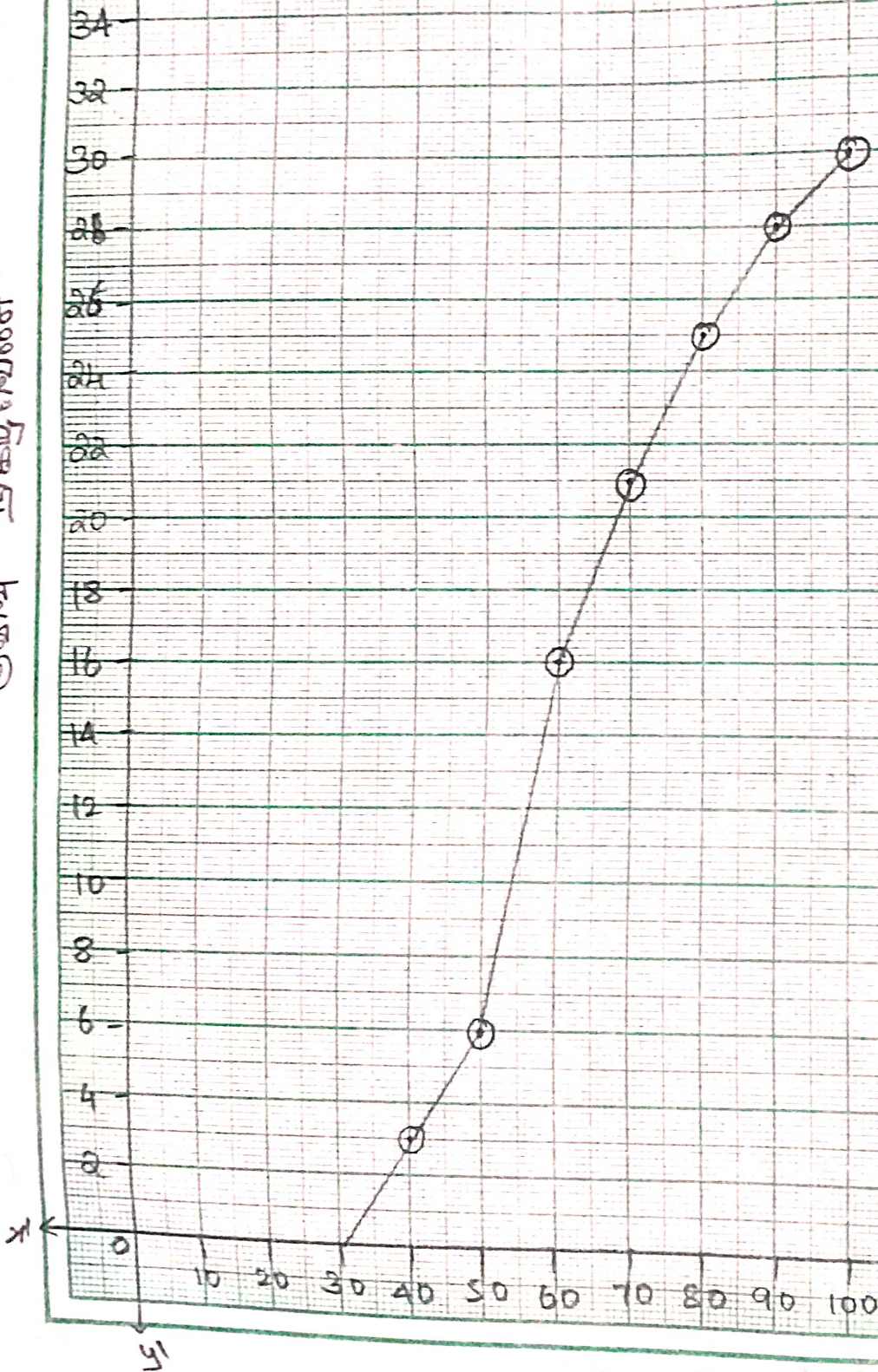
வரிசை எண்	பரிசு கடைவெண்	நடுப்புள்ளி $x$	$f$
1.	31-40	35.5	3
2.	41-50	45.5	3
3.	51-60	55.5	10
4.	61-70	65.5	5
5.	71-80	75.5	4
6.	81-90	85.5	3
7.	91-100	95.5	2

# கூடுதல் அலைவெண் உணர்வு

அளவுகூறியல்

X அச்சம் 1 செ.மீ = 10 அலகுகள்

Y அச்சம் 1 செ.மீ = 2 அலகுகள்

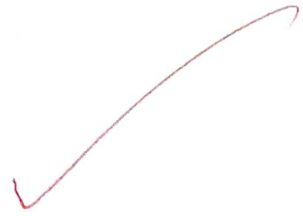


அலைவெண்

அலைநீளம்

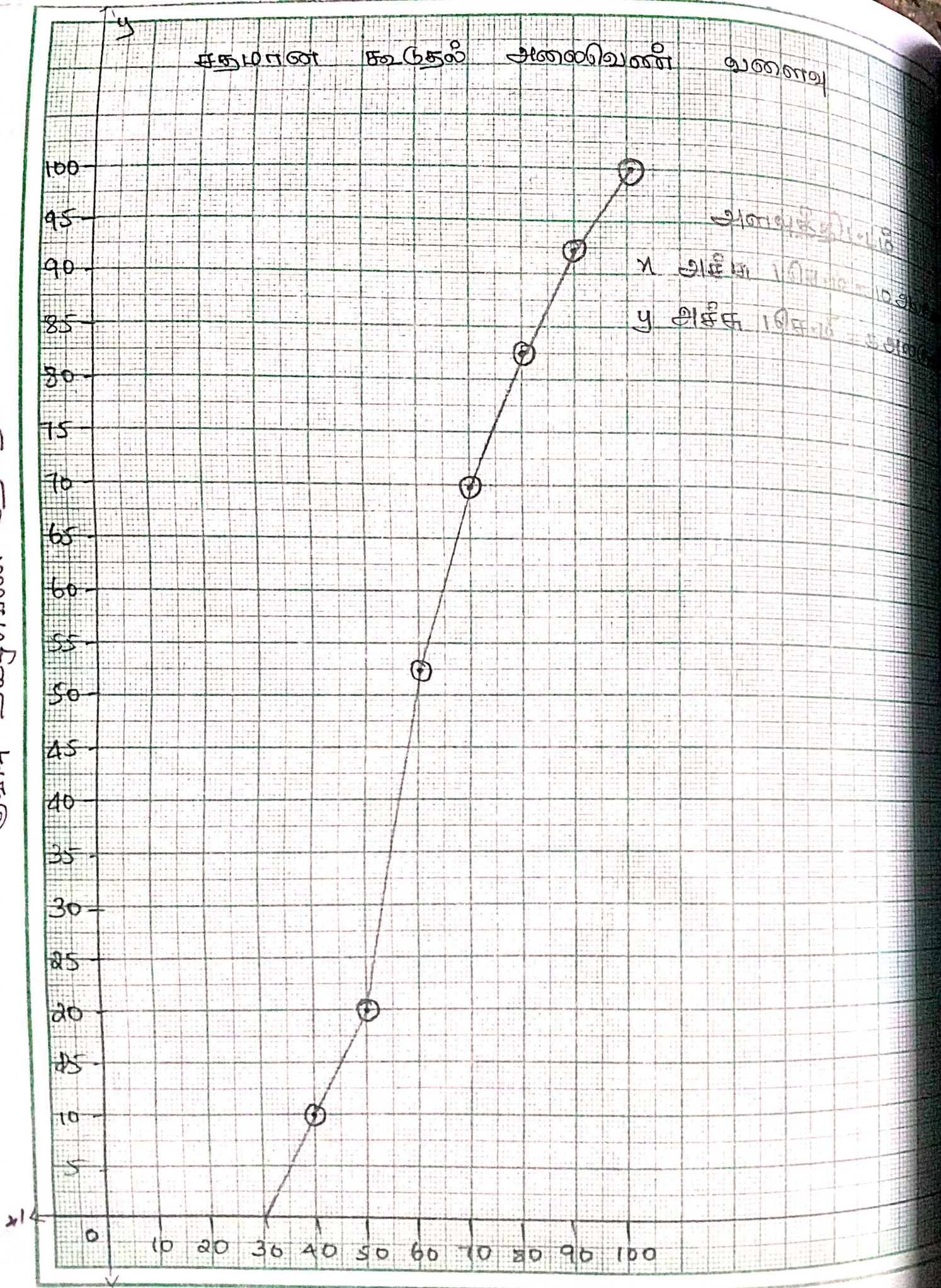
## கூடுதல் அலைவெண் உளைவு

வரிசை எண்	பரிமாறு இடைவெளி	f	cf	மொத்த நாபிகை
1.	31-40	3	3	40
2.	41-50	3	6	50
3.	51-60	10	16	60
4.	61-70	5	21	70
5.	71-80	4	25	80
6.	81-90	3	28	90
7.	91-100	2	30	100



கனவு நிகழ்வெண் சதவீதம்

சதமரண      கூடுதல்      அனலிவணி      வளைவு



அளவுகூறுகள்

x அச்ச அளவு = 10

y அச்ச அளவு = 5

மேலி ராஜேஸ்



சதமான கட்டுதல் அலைவெண் வளைவு

வரிசை எண்	பரிவு இடைவெண்	f	Cf	மீடல் எண்ணை	குறுகு நிகழ்வெண் சதவீதம்
1.	31-40	3	3	40	10
2.	41-50	3	6	50	20
3.	51-60	60	16	60	53
4.	61-70	5	21	70	70
5.	71-80	4	25	80	83
6.	81-90	3	28	90	93
7.	91-100	2	30	100	100

முடிவுரை

ஆசிரியர் என்பர் வாழ்நாள் முழுவதும் தொடர்ந்து கற்றுக்கொண்டே இருப்பவர் ஆவார். ஆசிரியர் அனைவருக்கும் புள்ளியியல் பற்றி கற்றுத்தந்தவராக இருக்க வேண்டும். கற்றல் முன்னேற்றத்தினையும், தங்களுடைய கற்பித்தல் முன்னேற்றத்தையும் அறிய உதவியாக உள்ளது. தினமும் வேலைகளில் ந.பெ.கீ.ப.ப.யவர்கள் கூட புள்ளியியல் கருத்துக்களை அறிந்து அதனை பயன்படுத்துகிறார்கள். எனவே, ஒரு சிறந்த ஆசிரியராக பணியாற்ற புள்ளியியல் கருத்துக்களை அறிந்திருப்பது அவசியமாகும்.

*R. Senthil*  
06/01/2023

Mobilizing relevant and learning resources

# SRI SARADA COLLEGE OF EDUCATION

(AUTONOMOUS)

SALEM - 636 016.



B.Ed., Course  
Module Preparation

## Bonafide Certificate

Name of the Student Teacher : P. NIROSHINI

Register Number : 2021P32

Optional Subject : 1. Physical Science

2. Tamil

P. Niroshini  
Signature of the Student Teacher

P. Niroshini  
Signature of the Internal Examiner

P. Niroshini  
Signature of the External Examiner

Date : 18.05.2021

Station : saalem

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# MODULE PREPARATION

## INTRODUCTION:

What is instructional design? In short, instructional design is the process by which learning products and experiences are designed, developed and delivered. These learning products include online courses, instructional manuals, video tutorials, learning simulation etc. Instructional designers are the 'architects' of the learning experiences and the 'directors' of the instructional system design ISD process. The terms instructional design, instructional technology, learning experiences (Lx) design and instructional systems design (ISD), are sometimes used interchangeably. Below are the a few instructional design definitions from various sources.

## MODULE

In education, the term 'module' refers to an instructional unit that focuses on a

Particular topics. Although the details and activities vary according to the specific content, such as course and student level most educational modules include information about the topic, focus on student-centered learning activities and culminate in a project for students to demonstrate understanding.

### Examples and Rationale:

Modules generally begin with a research question to focus student thinking such as, How do tornadoes form? Students then gain basic information through reading or videos followed by exploration activities, such as using a tornado chamber. Modules may involve the study of any topic, such as computer animations, then engineering concepts, general electronic and global warming. Since modules are active rather than provide learning experiences students may be

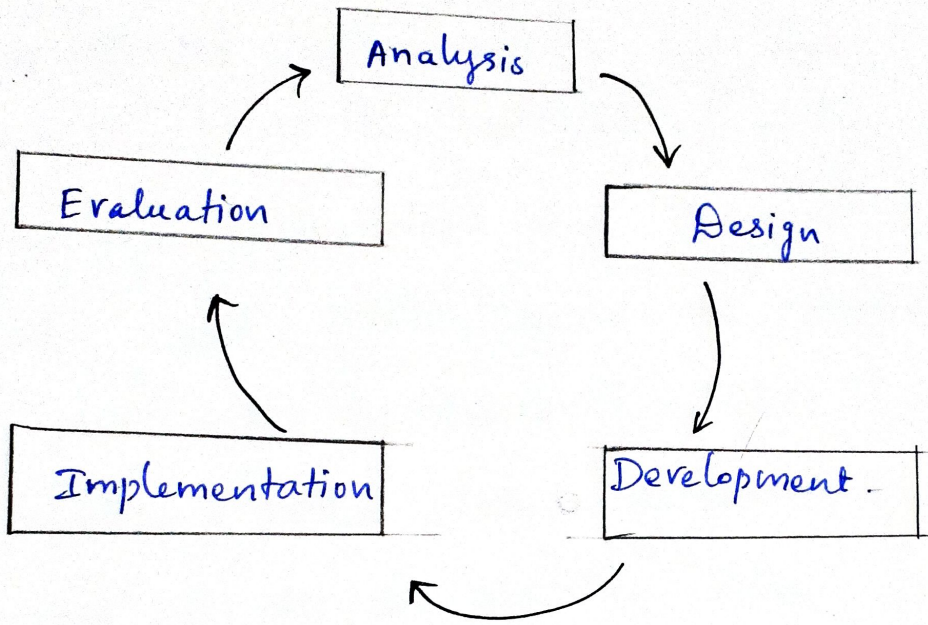
more engaged, understand real-world application of the concepts and further develop higher-order cognitive abilities.

Getting to Know ADDIE:

In a nutshell, ADDIE is an acronym where every letter corresponds to one of the model's main phases: analysis, Design, Development, Implementation and the Evaluation. The ADDIE methodology was developed in Florida State University's Center of Educational Technology back in the seventies. Initially, the model was meant to be used in the US armed forces, a fact to which it owes its streamlined process and clear delineation of phases. Despite being nearly forty years old, the methodology has not fallen out of use, indeed methodology to this day.



ADDIE:



## ANALYSIS PHASE:

In the Analysis phase, instructional Problem should be clarified and the instructional objectives should be established. During this phase, the learning environment and learners existing knowledge and skills should be identified. During their phase, the instructional designer should frame the problem, gather data, determine needed resources, drafts a timeline. The following questions should be addressed during this phase.

who is the audience and what are their characteristics?

what are the new behavioural outcome?

what learning constraints exist?

what delivery options exist?

what is the timeline for the project

completion?

## DESIGN PHASE:

The design phase includes learning objectives, assessments, exercises, content, subject matter analysis, lesson planning and media selection.

It is important that the design phase in systematic and specific systematic means that the material is logically identified, developed, and evaluated to achieve the project's goals. Specific means that all instructional elements needs are enumerated with alteration to details.

The following steps should be done during this phase: documentation and application of the project, design strategy learned on intended outcomes, design of the user interface and user experience. Action of the lessons prototype and application of graphic design principle.

## DEVELOPMENT PHASE:

In the development stage, the developer's put together everything that they created in the design phase. Also in this phase, programmers develop the final product. Then the designers review and revise the project according to the feedback they receive from the client.

The following questions are answered during this phase:

were the analysis for the project done correctly?

were the instructional objectives appropriate for the learning needs of the participants?

to what extent are the user instructional strategies used in the lesson successful?

It is possible to accurately assess learning with this lesson?

## IMPLEMENTATION PHASE:

Implementation is the actual presentation of the courses or learning materials to the

learners. This is also the phase where the person responsible for the course or the manager ensures that all the materials are in place, and that the learning application is functional.

EVALUATION PHASE:

\* The evaluation phase typically has two parts: formative and summative. Formative evaluation should be part of each stage of the ADDIE process. Summative evaluation consists of tests designed specifically for the content, and the feedback received from the end user.

\* In the first phase, analysis, the problem is defined, the learning goals are established, and the learners pre-existing skills are identified.

\* The design phase deals with learning objectives, assessment, instruments, exercises, content, subject matter analysis, lesson planning and media selection. Essentially this is the strategy phase.

(7)

\* In the design phase, graphics, are chosen, storyboards are created, the design phase, graphics are chosen, the delivery method is decided and the whole process is outlined.

\* The development phase is where the course is actually created from the storyboards and media assembled in the design phase. The course is then tested and debugged if necessary, reviewed and revised.

\* The implementation phase is where learners begin taking the training.

\* The evaluation phase is just that, evaluating the course, the learning objectives, whether those objectives are being met or whether the course needs the additional revisions and additions for greater clarity.

(14)

## PHASES IN MODULE PREPARATION:

- \* Objectives
- \* specific needs
- \* Materials / Tools and methods.
- \* Activities / Research Action.
- \* Length of Analysis.
- \* Expected outcomes
- \* Benefits and utility of Analysis
- \* Assessment / Evaluation
- \* Follow - up activities.

**LEVEL - 1**



## STANDARD - IX

### Periodic classification of Elements.

In this lesson periodic classification of Elements is the method of classification of different elements in different groups on the basis of their Properties is known as Periodic classification. In this lesson clearly explain the elements and their arrangements. The elements are arranged in groups and Periods in the Periodic table. The elements are grouped on the basis of their characteristic. It explains the postulates, advantages and limitations of modern periodic table. In this lesson also explain the metals and non-metals, metalloids and alloys.

#### Objectives:

\* To help the students will be able to know the concept of classification of elements in early days.

\* It helps to understand the classification of elements based on the electronic configuration.

\* To guide them to early understand the concept of classification of elements, and metals and non-metals.

Specific need:

There is a specific need to learn about the periodic table elements. To learn what is elements atomic number, and their properties. To knowledge the students about periodic table elements to be used in their higher classes.

Method:

The teacher shows the one element and the student who chosen that element should come front and describe that elements and their properties. As they learn all elements in periodic table. The learning through experience and understanding by their own will be easily understood and be in memory for a



Long Period of time.

Materials / Tools:

1. Picture of Periodic table elements.
2. Charts.

Activities: Grab & speak

The teacher asked each student to choose the element from the periodic table, then the teacher asked the student to imagine themselves as an element which they choose from the periodic table. The students have to consider themselves as an element and describe about the element which they choose.

Research sites:

$\bar{x}$  - standard.

Length of analysis:

45 minutes.

Expected outcome:

The student can be able to know the periodic table elements and their properties, thoroughly with proper explanations. Students can improve their skill of Inquiry.

Benefits of utility of Analysis:

This activity helps the students to come out of their fear and to develop self-confidence by speaking in front of all students. It also helps the students to learn or understand the content easily and thoroughly. The content is understood by their own will be easily understood and be in memory for a long period of time.

Assessment / Evaluation:

- Clear Explanation
- Delivery of the full content.
- Correct Pronunciation of elements.

Follow up activities:

Choose other element in periodic table, which did not chosen before and understand the elements nature and their properties. This will helps to recall the other elements too.

**LEVEL-2**

உதய : 111

தலைக்குள் யர் உலகம்

உலகத்திலேயே மிகமிக உயல்பாணசு ஸந்த னோன.  
 அதன் லசுயல்பாடுகள் உலகத்தையாணசை மட்டுமல்ல, புகிராணசை.  
 மருத்திய லோகத்தையும், அந்நியலாணசர்க்கும் கிள்ளைத்  
 தொடர்ந்த அந்நியந்த் தொண்புருக்கிறார்கள். கிந்த  
 மருபுச்சுத்திலேயே மிகவும் அடர்ந்தியான சிக்கலான யுரு  
 மொடுள் சகலவண்ணால் அது ஸந்த னோன தான ரீதிய  
 லசுயல்கிறார்கள். அதுதான் கருகும் லசுயல்கள் ரீதியகினை  
 லாண்டியன். அதுதான் நூறு லாண்டியன் அதுவசு பத்தாயிரம்  
 கோடி நியுராணிகள் உள்ளன.

நோக்கங்கள் :

- \* னோயன் அமைப்பாண பற்றி அந்நித் தொண்புருத்.
- \* னோயன் பண்புகண தொந்நித் தொண்புருத்.
- \* னோயும் உலர் லியக்கமம் பற்றி புரிந்த தொண்புருத்.
- \* னோயன் உணர்வுகள் மற்ரும் நிணசைவாற்றல் பற்றி அந்நித் தொண்புருத்.



திரும்பட்ட தேவைகள் :

அன்றாட வாடிக்கையாளர் சேவையளிப்பவருக்கு  
இன்றியமையாதது சீர்தகு. அத்தகைய சேவையளிப்பவர்கள்  
மற்றும் சிறு சேவாப்பலம் அளிக்கின்றன  
தொழிலாளர் அறிந்த தொழிலாளர். நாம், உலகம் நன்றாக  
பாதுகாக்கவும் நாம் உருவாக்கிய சேவாப்பலத்திற்கும்.  
தொழிலாளர் சேவாப்பலத்திற்கும் சீர்தகு அளவு சேவாப்பலம்  
சேர்க்கைகள். இவ்வாறு அன்றாட வாடிக்கையாளர் சேவாப்பலம்  
பாதுகாக்க சேவையளிப்பவர்கள் மற்ற தொழிலாளர் அறிந்த தொழிலாளர்

பொருள்கள் / பொருள்கள் மற்றும் சேவைகள் :

- \* கண்ணி
- \* சேவையளிப்பவர்கள் உலகம்
- \* நாளையம்.

சேவாப்பலங்கள் / சேவா ஆராய்ச்சிகள் : மாடு - கெட்டி - கன்று

சீர்தகு சேவையளிப்பவர்கள் அமைப்பை மாணவர்களுக்கு  
அளவுகூடிய உலகம் அளவுகூடிய கண்ணிக்கு அளவுகூடியது.  
அத்தகைய உலகம் அளவுகூடிய சேவை தரவேண்டும் என்று  
கூறும் அளவுகூடிய அமைப்பை மாணவர்களுக்கு.

அதில் நோயும் அதன் உடிகாட்டலாம் உன்  
 தியக்கம் நோயும் அதும் நோயாக அமைந்திருக்கிறது.  
 மேலும் நோயும் அதன் உணர்வுகளும், நுண்ணுயிர்களும்  
 மற்றும் நோயின் தன்மையும் நோயாக உணர்ச்சி  
 தருகிறது. ஆகவே அந்த உயிர்வாழ்வு மானவர்களுக்கு  
 பரிசும் உண்டாகிறது. உயிர்வாழ்வு மானவர்கள், ஆகவே  
 மானவர்களை ஒரு குடும்பமாக மாற்றுகிறது. மன  
 ஆகவே ஒரு நுண்ணுயிர் சினை அருகிலும். நுண்ணுயிர்  
 தன்மையாக அருகிலும் தேன் ஒரு நோயாளியைப் பற்றி  
 ஒரு தகவலையும், நுண்ணுயிர் மூலமாக அருகிலும் திரும்பிவரும்  
 ஒரு நோயாளியை பற்றி ஒரு தகவலையும் கூற வேண்டும்.

அருகிலும் அருகிலும் காலம்:

45 நிமிடங்கள்.

அறிவுபரக்கப்பட்ட மனவர்களை உணர்வுகள்:

\* அந்த பகுப்பாய்வானது மானவர்களை அறிவுபெற்றவர்கள்  
 மற்றும் கவனிக்கவும் திறனை மேம்படுத்துகிறது.

\* மானவர்களை கற்றல் மனவர்களை உணர்வு அமைகிறது.

\* மானாசங்கரன் சீவ கர்மம் பற்றும் சீவ சிந்தனைகளை உணர்ச்சியுற செய்கிறது.

வினாக்கள்:

I. சீவான உடையை தேர்ந்தெடுக்க :

- 1. நேமை ——— திருந்து நனைக்கிறது.
  - அ) சூடுகத்தணியம்      ஆ) உயர்ந்த
  - ஆ) நரம்பன்              எ) துண்டன்
- 2. நேமையை ——— பாகங்களாக பிரிக்கின்றனர்.
  - ஆ) மூன்று              ஆ) கிழங்கு
  - ஆ) மூன்று              எ) நான்கு
- 3. நேமையின் அமைப்பைக் கூறுக?
- 4. நேமையின் உணவு யாது?
- 5. நேமையும் உள் உயக்கீழும் உயர்வு?

தொடர்புள்ள செயல்கள்:

நேமையின் உயர்வு, கீழ் செயல்களை பற்றி

அறிந்து கொண்டு உருக.

உள்ளே, நடுவே, பின்னே சிக்கிய பற்றி

தொடுக்க அதனை எடுக்க உருக.

Conclusion :

Thus, the teaching module will help the teachers to analyse the effectiveness of his/her teaching by making / creating some activities, in the classroom itself. It also enriches the students' performance inside the class and to create an interesting atmosphere in the students' learning process. Thus, the teacher of any subject should prepare a teaching module before taking the class.

L. P. M. J. W.



# SRI SARADA COLLEGE OF EDUCATION

(AUTONOMOUS), SALEM - 636 016.

(AFFILIATED TO TAMILNADU TEACHERS EDUCATION UNIVERSITY, CHENNAI)

RE-ACCREDITED BY NAAC WITH "A" GRADE (III Cycle)



**B.Ed. Course**  
**Website Analysis**

Name : M-FATHIMA BEE

Reg. No. : 2021P30

Optional : PHYSICAL SCIENCE

# SRI SARADA COLLEGE OF EDUCATION

(AUTONOMOUS)

SALEM - 636 016.



**B.Ed., Course**  
**Website Analysis**

## Bonafide Certificate

Name of the Student Teacher : M. FATHIMA BEE

Register Number : 2021P30

Optional Subject : 1 PHYSICAL SCIENCE

2 ENGLISH

*M. Fathimabee*

Signature of the Student Teacher

*Dr. P. N. N. N.*

Signature of the Internal Examiner

*Dr. P. N. N. N.*

Signature of the External Examiner

Date : 18.05.2022,

Station : SALEM.

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WEBSITE

ANALYSIS

(3)

# WEBSITE ANALYSIS

## INTRODUCTION:

The capacity to critically analyse information is central within the research process of locating resources for academic purpose. Apart from being able to assess the relevance, accuracy and sustainability of information to your particular purpose. Using poor quality information to your sources of worse still. Citing misinformation will degrade the quality our work. While evaluation of information sources has always been important. This step is particularly important when using information found on internet.

## Need to Analyse:

There is no central governing body for internet publishing. There is no system of quality control; there is no editors and documents can be easily falsified and can be copied. This is the fundamental nature of the World wide web is that it provides means for people to express themselves; It allows for

freedom of speeches and ideas, and allows people to meet. As long as the web retain these qualities of freedom, it will also remain unmonitored and unregulated. This, therefore leaves a large responsibility on us, the user to careful and critically evaluate the website we use as information sources

### Internet:

The Internet is an International network of computers linked to exchange information. The word is a contraction of "International" and "Network". Every computer that people use, gets registered and people have to pay to get an address for that computers, called a Uniform Resource Locator - URL.

### Search Engines:

Search Engines are World wide Web sites that use computers to catalogue millions of webpages, which one can use to search for specific text. Most people tend to use their favourite "engine". So of the most popular are Google, Ask, Alta, Excite, Yahoo, Hot, Bot and Ail.

Google:

Google is the 'Big Daddy' of all search engines. It is a metasearch engine that conducts the search across many different search engines at one. It delivers results that pay attention to the proximity of the search terms you enter. Google also ranks its results based on the amount of "hits" (and links from other sites) per URL.

You can also go to Google and type in new search engines and get a list of what's new out there in "air" land.

Search Tips:

If we are using a search engine and are either getting too much or too little, here are some search tips. Be as specific as possible; check our spelling change pluralisation (or) possible; check quotes or "put a phrase" in "quotes". Searching with a broad key word like "Algebra" will return a number of irrelevant results. Narrow the keyword such as "Algebraic identity" or "Quadratic Equations". This will result in more specific information.

How to analyse a Website:

Although many people evaluate websites (particularly commercial sites) based purely on their look and feel, for academic purposes it is far more important to evaluate the content of the site. Don't be put off a site because it is unattractive, much of the quality information resides on sites that are unadorned by flashy graphics and images. On the flip side of the coin, many sites that look great have little real substance. If you are citing information for assessment purposes, the reader (or the marker) will be unimpressed by the attractiveness of your sources, more that you have been able to verify the accuracy and objectivity of the content it contains when using a website for research purposes, in the first instance look for sites that contains at least the author's name, title or position, organisational affiliation contact details and the date of creation. Sometimes you will be tipped off by the general tone or style of a site, or the apparent competence of the writer. However, some authors go to great lengths

to disguise the main objectives of a site and you will need to look much harder and further for clues about the overall integrity and accuracy of the information provided. You should then go on to test for some further indications of quality in the area of credibility, accuracy, objectivity and support as outlined below.

Credibility:

Before acting on or making any decision based on information, most people take into account the credibility of the sources. Assessing the credibility of a page involves working out who is responsible for the information, if they are who they say they are and whether or not they are a qualified authority. Regardless of how a professional a site looks, we must investigate its credibility if we want to use the information contained on the site.

Author Details:

If we find information on a website we wish to use or quote we must first attempt to find the authors (or) the authority institutions details.

\* Look for the author's name and/or email address on the webpage [try the top and bottom of the page, side bars, menu bars or About us sections].

\* Is the author qualified in the field?

\* Are they a reliable authority on the subject?

\* Does the authoring organisation or person match the URL.

### Uniqueness:

Uniqueness refers to the amount of original material on a site that cannot be obtained elsewhere. If we have spent any time searching the web, we will know that we often end up at the same site, or else different sites containing the same or very similar information and links. When evaluating a site, be clear about whether the information contained is primary or secondary information, primary information is original material produced by owners of the site with mainly internal links. i.e links to other parts of the site on the same server secondary information is very common on the web and is typified



by lists of links to other sites on the same server. Secondary information is very common on the web and is typified by lists of links to other sites.

Completeness:

A clue is the credibility of a site is its completeness. This can be due to the site being unfinished and still a work in progress or because it is only meant to serve as a taster to material that can be accessed or purchased elsewhere.

- \* check that there are no dead links
- \* Are all links like [not greyed out]
- \* There should be no 'under construction signs'.
- \* Does the site include all the necessary information or just an abstract, table of contents or reviews?

Audience:

This area will be touched on again under objectivity, but it also applied in this, the area of website credibility. Before using information from a website, do take into account the intended audience. For example,

a site about volcanoes for primary school children will probably not provided the depth or complexity of information necessary for a university Geology paper.

Accuracy:

Once you have checked the overall credibility of a website, you should move on to Evaluate the accuracy of the information presented information from even the most respected source is useless if its wrong or out dated.

Currency of Information:

Some Information is timeless. It remains statics regardless of how long ago it was Published. This applies to works which as reveals. However, much information today has a very limited shelf life technology, news dates extremely quickly. Advances in medical research makes things of fantasy ten years ago a reality today. Websites that contains information such as news, weather, timetables, prices, statistics or latest research obviously need to be updated

on a regular basis or they may provide misinformation. This is not to say that all older information is useless. Information written sometime ago can be useful for comparing current information with [example: The growth in a population or comparisons between treatment or disease]. But it must always be obvious how old information is:

- \* Look for the date of creation on any information you wish to use.
- \* Check for the date of last update.
- \* Check for statements regarding the frequency of updates.
- \* Be sure as to whether you are viewing current or archived information.

### Typographical Errors / Spelling Mistakes:

In addition to lowering the tone and taking away from the overall integrity of a site, typographical spelling and grammatical errors can affect the accuracy of the information provided. Be away of a site that includes many of these errors as it is difficult to tell whether the errors are due to carelessness or an intent

to mislead.

Factual:

Look for supporting evidence of information supplied in the way of references or bibliographies while some sites claim to be presenting the fact further investigation may reveal they are presenting either a biased view or completely inaccurate information. This point will be elaborated on in the objectivity section.

Objectivity:

Objectivity refers to how balanced and fair the information is while it should obviously be truthful, the information presented should be balanced, cover all sides of the story and should be presented without bias to help gauge the objectivity of a site, you should first ascertain the original goal of the site and whether there has been only sponsorship associated with the information

The greatest danger to the objectivity of a site is a conflict of interest. For example, an article on the dangers of babies drinking soy milk that is sponsored by the dairy association

information and activity...  
different types of...  
to recognise any...  
site

Support refers to how well the information  
can be verified and corroborated.  
If we have any questions about  
a site or the information presented,  
it offered should assist us in resolving  
grey areas. Information should be  
supported by references and bibliographies  
is especially important in other circumstances.  
If we are unable to find any references  
that corroborate the information  
presented be wary. We should not seek to  
circumvent the information and our references  
that support the information  
look for:

- References and Bibliographies
- Supporting documents and/or links
- Contact follow up details supplied

The information and activity earlier in this topic about different types of websites should help you to recognise any conflict of interest on a website.

### Support:

Support refers to how well the information presented can be verified and corroborated if necessary. If we have any questions (or) reservation about a site or the information presented, the support offered should assist us in clarifying any grey areas. Information should be supported by references and/or bibliographies. This is especially important when presenting statistics. If we are unable to find any other sources that corroborates the information presented be wary. We should be able to triangulate the information. [Find two other sources that support the information.]

Look for:

- \* References and Bibliographies.
- \* Supporting documents and/or links
- \* Contact follow up details supplied.

LEVEL-I

# IDENTIFICATION AND CATALOGUING WEBSITE -I

URL of website : <https://www.acs.org/content/acs/en/education/resources/highschool/chemmatters/archive/2014-2015/smart-phones.html>

Title of Article/ Work : Smartphones : Smart Chemistry - American chemical society .

Author/Last Name : Rodrig

Author/First Name : Brian

Author Address : Columbus, Ohio

Editor : NIL

Publisher Information : ACS - Chemistry for Life

Date of Publication : April / May 2015

Date of Access : NIL

Font size of website : Legible , Normal

Pictures : Pictures of Smartphone (1)  
Chemical structures (3) Figures (2)

Videos / Animations : NIL

Background Colour : Black and white

Font Colour : Blue, Black and Brown .

External links (any) : 3

References (if any) : 2



ChemMatters

## Smartphones: Smart Chemistry

• Menu

- [Teacher's Guide](#)
- [How to Use CM](#)
- [Issues](#)
- [Videos](#)
- [Articles by Topic](#)
- [Subscribe](#)



[Teacher's Guide](#)

[How to Use](#)

[Issues](#)

[Videos](#)

[Search by Concept](#)

[Subscribe](#)

[Facebook](#) [LinkedIn](#) [Twitter](#) [Pinterest](#) [Email](#)

April/May 2015  
By Brian Rohrig



[Download PDF](#)

Language and vocabulary : It is simple and understandable.

Exercise Details : Not available

Level of Subject Matter : Graduate level

Subject Matter of the Site : <sup>Very</sup> Informative

Overall vision:

The site is very attractive to its intended audience. The title of the site is indicating the content. The use of the texts and the chemical structures comparing the silicon dioxide and figures which is used to explain the smartphone displays is more appropriate. The use of text and figure is appropriate for the level of understanding of the audience. The Printable version of the complete text page is offered. We can scroll down the page available easily and it also offers a pdf to be downloaded to read the article. This site develops a great understanding about the chemistry of the smartphones.

## IDENTIFICATION AND CATALOGUING WEBSITE - II

URL of the website : <https://www.interviewgig.com/smartphone-smartchemistry-chemical-elements-of-smartphone/>  
 Title of the Article : Smartphone - smart chemistry: Chemical Elements of Smartphone  
 /work :  
 Author (last Name) : NIL  
 Author (First Name) : VINEETHA  
 Author Address : NIL  
 Editor : NIL  
 Publisher Information : INTERVIEW GIG  
 Date of Publication : 25 Dec  
 Date of Access : NIL  
 Font size of website : Legible, Understandable  
 Pictures : 1  
 Video/animations : NIL  
 Background colour : Black and white  
 Font colour : Black and orange  
 External links / if any : NIL  
 References if any : NIL

# SMARTPHONE -SMART CHEMISTR Y: CHEMICAL ELEMENTS OF SMAR TPHONE

HOME > ALL ARTICLES > SMARTPHONE -SMART CHEMISTRY: CHEMICAL ELEMENTS OF SMARTPHONE



Smartphone -Smart Chemistry: Chemical Elements of Smartph  
one

Admin | chemical, Chemical Elements of Smartphone, Smartphone -Smart  
Chemistry: Chemical Elements of Smartphone, Technology | All Articles: Technology |

## Smartphone -Smart chemistry: Chemical Elements of Smartphone



Could you imagine a day without your smart phone, not only it but it is making the users also smarter day by day. Amazing you can surf the internet ,listen to music and text your friends with something that fits in the palm of your hands .None of the things would be possible without chemistry and every time you use your smartphone you are putting chemistry into action.

Smart Chemical Elements to Smart Chemistry

- If you are wondering what chemistry has to do with smart phones just look at the periodic table of the 83 stable elements, at least 70of them can be found in smart phones.
- An average smart phone contains up to 62 different types of metal.
- Single I-phone contains 8 different rare earth metals.
- Phone cannot vibrate without neodymium and dysprosium.
- Rare earth metals are used in electronic

Million:  
product  
amazo



> Shop N

ALL CATEGORIES

- Administrator
- Adobe Topics
- All Articles
- Apache Products
- Banking Topics
- Big Data Analytics
- Business and Project Topics
- Business Intelligence
- C
- Cloud Computing
- Database and SQL Topics
- DevOps Tools
- Digital Marketing
- Education

Language and vocabulary: Simple and understandable by readers

Exercise Details : NIL

Level of Subject Matter : XI Standard

Subject Matter of the Site : Informative, Author Introduction

### Overall Mission & Vision:

The language is simple and the article commences about the smart chemical elements present in the smartphone. The Smartphone display, the hands behind a touch screen. The chemical elements used in the screen, battery, electronics and casings are all explained legibly and pointwise. The text on the site is easily readable. The Background is white and black fonts and Co-ordinates the text colour. Site offers new materials on the subject which is to be learnt by every learner. Each and every element used in the smartphones is explained and concluded.

## Criteria for comparative evaluation of the websites

Title of the Website	Smartphones: Smart Chemistry / American Chemical Society	Smartphones: Smart Chemistry / Chemical Elements of Smartphone InterviewGig
Address on URL	<a href="https://www.acs.org/content/acs/en/education/resources/highschool/chemmatters/past-issues/archive-2014-2015-smartphones.html">https://www.acs.org/content/acs/en/education/resources/highschool/chemmatters/past-issues/archive-2014-2015-smartphones.html</a>	<a href="https://www.interviewgig.com/smartphone-smart-chemistry-chemical-elements-of-smartphone/">https://www.interviewgig.com/smartphone-smart-chemistry-chemical-elements-of-smartphone/</a>
Date Visited	16.05.2022	16.05.2022
Design	<p>The webpage width can be seen on the current screen on the monitor</p> <p>The site's general appearance is attractive and intended</p>	<p>Entire page width can be seen on the screen of the monitor</p> <p>The text on the screen is easily readable</p>

to the audience  
Industry shaped  
monitor

Background is  
co-ordinated with  
text colours.

The chemical structure  
and the figures  
explaining the working  
of a smartphone  
succices the article

The webpage is  
too long.

The graphics is  
easily readable.

The site scrolls with  
advertisements.

The use of text and  
structures, figures is  
appropriate to the  
level of understanding  
of the targeted audience

The text style is  
suitable for the  
school students  
as it is listed out  
as points

Content

It is useful for the teachers, college students and high school students.

It gives simple and reliable notes for the content.

Information is presented in a wider sense, so briefly.

The information is useful and accurate.

The title of the site is indicative for its content.

The title of the site is indicative for its content.

Can see meaningful information within few seconds.

A printable handout version for school students.

Structures and pictures are used.

A picture is used.

Technology



Technology

Printable version the text is available as a pdf.

Can see reliable information within minutes.

All quicklinks, links works, pictures, references are downloaded quickly

Every link works picture is rapidly downloadable.

Credibility

The author's institution is given. links are current.

Only Author is just mentioned

The author of the site is given.

The author of the site is given, no further details

The site is being updated. Other related article is given

Other related articles are also given. other Posts are also available.

## Pedagogy

The site develops creative thinking

The site is very attractive process. It encourages the learners.

The site encourages higher order thinking.

The site helps to learn the new words.

Site creates the higher order thinking.

The site has references for other posts.

Site encourages to learn new information.

The site provides a plenty of new information.

RUBRICS FOR EVALUATING WEBSITES

Title of websites	Smartphones: Smart chemistry	Smartphones: Smart chemistry - Chemical elements of Smartphones																								
Address on URI	<a href="https://www.acs.org/content/acs/en/education/resources/highschool/chemmatters/pastissues/archive-2014-2015/smartphones.html">https://www.acs.org/content/acs/en/education/resources/highschool/chemmatters/pastissues/archive-2014-2015/smartphones.html</a>	<a href="https://www.interviw.com/smartphone-chemistry-smartphone-chemical-elements-of-smartphones">https://www.interviw.com/smartphone-chemistry-smartphone-chemical-elements-of-smartphones</a>																								
Criteria for Evaluation Activity / Credibility 1 Author's name is given 2 The author's organisation or institution is given	<table border="1"> <thead> <tr> <th colspan="3">Rating</th> </tr> <tr> <th>Not so good 1</th> <th>okay 2</th> <th>Good 3</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>✓</td> </tr> <tr> <td></td> <td></td> <td>✓</td> </tr> </tbody> </table>	Rating			Not so good 1	okay 2	Good 3			✓			✓	<table border="1"> <thead> <tr> <th colspan="3">Rating</th> </tr> <tr> <th>Not so good 1</th> <th>okay 2</th> <th>Good 3</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>✓</td> </tr> <tr> <td>✓</td> <td></td> <td></td> </tr> </tbody> </table>	Rating			Not so good 1	okay 2	Good 3			✓	✓		
Rating																										
Not so good 1	okay 2	Good 3																								
		✓																								
		✓																								
Rating																										
Not so good 1	okay 2	Good 3																								
		✓																								
✓																										

3. The author's qualification and experience are given

4. The author's contact information is given.

Accuracy/Awareness

5. The data that the webpage was last update is given.

6. The information is up to date.

7. The information is complete.

8. There are no spelling mistakes or errors

9. Bibliographies or references are given

Bias/objectivity

10. Statement of purpose / scope

11. Site avoids social bias (gender, racial, religious etc...).

12. Information presented or factual and primary in again.

13. Site enrich and expands users imagination.

14. The information presented free on advertising





22. All of the links work.	✓	✓	✓	✓	✓
23. The pages load quickly	✓	✓	✓	✓	✓
24. Text is easy to read.	✓	✓	✓	✓	✓
25. Designs are appropriate	✓	✓	✓	✓	✓
Total score	62				45

Rating based  
on  
Total Score

\*\*\*\*\*

\*\*\*\*\*

LEVEL-III



IDENTIFICATION AND CATALOGUING WEBSITE - I

URL of the website } : <https://www.theindiaforum.in/amp/article/life/art-ms-subbulakshmi>.

Title of the Article/ work : The Life and Art of M. S. Subbulakshmi .

Author [First Name] : Arvind

Author [Last Name] : Subramanian

Editor : The India Forum

Publisher Information : The India Forum

Date of Publication : March 02, 2021

Date of Access : 16.05.2022

Font size of the website : legible .

Pictures : 2

Video / Animations : NIL

Background colour : Light Blue

Font colour : Black and red



## The Life and Art of M.S. Subbulakshmi

*A new biography gives us a sense of the many personalities that made up “MS”, the extraordinary exponent of Carnatic music, during her life-journey.*

Keshav Desiraju: *Gifted Voice: The Life and Art of M.S. Subbulakshmi*, HarperCollins, 2021



ARVIND SUBRAMANIAN

MARCH 02, 2021

Dawn breaks and south India wakes to the celestial voice of Madurai Shanmukkavadivu Subbulakshmi, “MS” to the world. Roused from their slumber too are the various gods and goddesses of the Hindu pantheon as MS sings -chants the *Venkateshwara Suprabhatam* or *Vishnu Sahasnamam* or *Bhaja Govindam*. This has been true for several decades now, and TikTok, YouTube and their mutating successors notwithstanding, it will probably be true for the next several decades as well. Even in this globalized world, the staggering cultural phenomenon that is MS, is insufficiently recognized beyond India’s borders. Why blame the world, it is inadequately appreciated even within India, north of the Vindhyas?

Keshav Desiraju’s superb new biography of the incomparable MS is therefore an overdue call to India and the world to take notice. *Gifted Voice* succeeds at many

External links [if any]: NIL

References [if any] : 3

Language and vocabulary : Simple & Contemporary

Excercise Details : NIL

Level of the Subject : Class IX  
Matter

Subject Matter of the Site: For Students, Musicians  
Informative broader,  
Author Introduction.

Overall Vision:

The site is pleasing to its intended audience. The title of the site is indicating the content. The author has compiled the life biography of M.S. Subulakshmi from various books on the biography of this great legend and has quoted the essence of her biography and compiled it as a single treasure of article.

It will be highly useful for the students which is related to their activity of Unit-6 in class 9 textbook. The website is damn simple and comes up with new sanskrit words.

# IDENTIFICATION AND CATALOGUING WEBSITE-II

URL of the website : <https://www.culturalindia.net/indian-music/classical-singers/m-s-subbulakshmi.html>

Title of the Article/ work : M.S. Subbulakshmi

Author [First Name] : NIL

Author [Last Name] : NIL

Editor : CULTURAL INDIA

Publisher Information : CULTURAL INDIA

Date of Publication : NIL

Date of Access : NIL

Font size of the website : Legible

Pictures : 5

Video/Animation : NIL

Background Colour : white

Font Colour : Black

External links [if any] : NIL

References [if any] : NIL

Madurai Shanmukhavadiyu Subbulakshmi, commonly known as M. S. Subbulakshmi, was an eminent Indian Carnatic singer.

[Cultural India \(/index.html\)](#) : [Indian Music \(/indian-music/index.html\)](#) : [Classical Singer \(/index.html\)](#) : M. S. Subbulakshmi

## M. S. Subbulakshmi

### Fast Facts

Date of Birth: 16 September, 1916

Place of Birth: Madurai, Tamil Nadu

Birth Name: Kunjamma

Date of Death: 11 December, 2004

Place of Death: Chennai, Tamil Nadu

Profession: Carnatic singer

Spouse: Kalki Sadasivam

Father: Subramanialyer

Mother: Shanmu kavadiver Ammal

Awards: Bharat Ratna, Ramon Magsaysay Award, Sangeet Natak Akademi Award

Madurai Shanmukhavadiyu Subbulakshmi is a name that is synonymous with the world of Carnatic music. This flawless singer, whose voice almost had a divine power, is the first singer to be presented with India's highest civil honour, the Bharat Ratna. When she was honoured with the Ramon Magsaysay award, which is considered as Asia's Nobel Prize, she became the first Indian musician to do so. Subbulakshmi, fondly addressed as M.S by her fans, was a true pioneer of anything that has to do with women empowerment. She led by example and showed the way to contemporary women of her era. Though she is famous as an exponent of Carnatic music, her expertise in Hindustani classical music was not short of brilliance. Subbulakshmi didn't contain herself with just music, for she forayed into the field of acting as well.

### Indian Music (/indian-music/index.html)

[Hindustani Gharanas \(/indian-music/hindustani-gharanas.html\)](#)

[Hindustani School \(/indian-music/hindustani-school.html\)](#)

[Music Glossary \(/indian-music/music-glossary.html\)](#)

[Indian Music Instruments \(/indian-music/music-instruments.html\)](#)

[Carnatic Music \(/indian-music/carnatic-music.html\)](#)

[Indian Film Music \(/indian-music/film-music.html\)](#)

[Indian Fusion Music \(/indian-music/fusion.html\)](#)

[Ghazals \(/indian-music/ghazals.html\)](#)

[Folk Music \(/indian-music/folk-music.html\)](#)

[Shayari \(/indian-music/shayeri.html\)](#)

[Ustad Bismillah Khan \(/indian-music/classical-singers/bisbillah-khan.html\)](#)

[Pandit Shivkumar Sharma \(/indian-music/classical-singers/shivkumar-sharma.html\)](#)

[Ustad Zakir Hussain \(/indian-music/classical-singers/zakir-hussain.html\)](#)

[Pandit Ravi Shankar \(/indian-music/classical-singers/ravi-shankar.html\)](#)

[Indian Classical Singers \(/indian-music/classical-singers/index.html\)](#)

[Ustad Amjad Ali Khan \(/indian-music/classical-singers/amjad-ali-khan.html\)](#)

[Ustad Bade Ghulam Ali Khan](#)

Language and vocabulary : Simple and lexicon

Exercise Details : NIL

Level of Subject Matter : Class: IX

Subject Matter of the Site : VERY INFORMATIVE

Overall Vision:

The website provide fast facts on her biography. It gives information to suffice the intended audience. The Introduction about the legendary classical singer is fabulous. The life biography of the singer has been categorised as childhood education, career, foreign trips. A Date with Cinema, Famous works, An elite list of fans, Humanitarian works, Personal life and family, Death. To Honour her contribution a separate section ~ Legacy is given what role she played magnanimously in the Indian Cinema. The Audience or the reader can take up the information corresponding to the desired section.

## CRITERIA FOR COMPARITIVE EVALUATION OF TWO WEBSITES

<p>Address of URL</p>	<p><a href="https://www.theindiaforum.in/amp/article/life-and-art-ms-subbulakshmi">https://www.theindiaforum.in/amp/article/life-and-art-ms-subbulakshmi</a></p>	<p><a href="https://www.culturalindia.net/indian-music/classical-singers/ms-subbulakshmi.html">https://www.culturalindia.net/indian-music/classical-singers/ms-subbulakshmi.html</a></p>
<p>Title of the website</p>	<p>The Life and Art of M.S. Subbulakshmi</p>	<p>M. S. Subbulakshmi</p>
<p>Date Visited</p>	<p>16.05.2022</p>	<p>16.05.2022</p>
<p>Design</p>	<p>The webpage width can be seen on the current screen on the monitor</p>	<p>Entire page width can be seen on the monitor</p>

The site's general appearance is attractive.

The site's general appearance is simple.

The webpage comprises of the compilation of the biography of M.S. Subbulakshmi

The webpage is too long

The graphics is readable

The site scrolls with lot of advertisements

Content

The use of text is simple. The author quotes the biography of the legendary from the three books

The text style is simple for the readers and the audience. The content is provided as quick facts.



	<p>and highlights the content.</p> <p>He quotes the important life events</p> <p>He highlights even the author's of the book that he has defined, written etc...</p>	<p>The content is purely based on the biography with the essential sub-reading which will be useful.</p> <p>The content has highlighted the legacy of the legendary Singer to show how her presence was in Indian Cinema</p>
<p>Technology</p>	<p>Can search for the proper context of the article after minutes.</p> <p>A Picture is used.</p>	<p>Can see meaningful information within few seconds.</p> <p>5 Pictures are used.</p>

The entire article quotes from other books on the biography of the singer

The entire article is super simple for the readers who are interested in biography of M.S. Subbulakshmi

No link is present.

Every link works  
Picture is downloadable

The author's institution is given.

No author

Links are current

links are current

The site is being updated

Other links are also available

Credibility

# Pedagogy

The site develops creative thinking and critically ponder upon the words

The site develops higher order thinking.

The site is attractive

The site has reference for other posts.

The ~~site~~ provides opportunity to learn new words

The site provide a plenty amount of new information on the biography of the legendary Singer

RUBRICS FOR EVALUATING WEBSITES

Address of URL	https://www.theindiaforum.in/amp/article/life-and-art-m-s-subbulakshmi	https://www.culturalindia.net/indian-music-classical-singers/m-s-subbulakshmi.htm																		
Title of websites	The Life and Art of M.S. Subbulakshmi	M.S. Subbulakshmi																		
Criteria for Evaluation	<table border="1"> <tr> <td>Not so good</td> <td>1</td> </tr> <tr> <td>Okay</td> <td>2</td> </tr> <tr> <td>Good</td> <td>3</td> </tr> </table>	Not so good	1	Okay	2	Good	3	<table border="1"> <tr> <td>Not so good</td> <td>1</td> </tr> <tr> <td>Okay</td> <td>2</td> </tr> <tr> <td>Good</td> <td>3</td> </tr> </table>	Not so good	1	Okay	2	Good	3						
Not so good	1																			
Okay	2																			
Good	3																			
Not so good	1																			
Okay	2																			
Good	3																			
<p>Activity/Credibility</p> <p>1. Author's Name is given</p> <p>2. The Author's organisation / institution is given</p>	<table border="1"> <tr> <td>Not so good</td> <td>1</td> <td>✓</td> </tr> <tr> <td>Okay</td> <td>2</td> <td>✓</td> </tr> <tr> <td>Good</td> <td>3</td> <td>✓</td> </tr> </table>	Not so good	1	✓	Okay	2	✓	Good	3	✓	<table border="1"> <tr> <td>Not so good</td> <td>1</td> <td>✓</td> </tr> <tr> <td>Okay</td> <td>2</td> <td>✓</td> </tr> <tr> <td>Good</td> <td>3</td> <td>✓</td> </tr> </table>	Not so good	1	✓	Okay	2	✓	Good	3	✓
Not so good	1	✓																		
Okay	2	✓																		
Good	3	✓																		
Not so good	1	✓																		
Okay	2	✓																		
Good	3	✓																		

3. The Author's qualification and experience are given

4. The author's contact information is given.

Accuracy / Awareness

5. The data that the web page was last update is given

6. The information is up-to-date

7. The information is complete

8. The information is relevant

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

✓

mistakes/error

9. Bibliographies or references are given

Bias/objectivity

10. Statement of purpose / scope

11. Site avoids social bias [gender, racial, religious etc...]

12. Information presented on factual and primary in again.

13. Sites enrich and expands users imagination

14. The information presented is free of advertising



15. Site offers a new area



16. Information is useful



17. Additional resources are useful.



18. Site integrates several content area, design/technology



19. The pictures are relevant and clear



20. The pages are easy to move around



21. All of the links work.

22. The pages load quickly

23. Text is

easy to read

24. Designs are appropriate

25. Free from server errors

Total score

Rating based on

Total score

64

58

\*\*\*\*\*☆

\*\*\*\*\*☆



CONCLUSION:

Thus, from the website analysis I have learnt many things to analyse the two different websites for teaching-learning purpose. This is very useful and effective in analysing the different websites. Through this I have learnt how to give the best to the students I have also learnt some new processes and ideas on website analysis through this record.

Evolving ICT based Learning Situations  
**SRI SARADA COLLEGE OF EDUCATION**  
(AUTONOMOUS)  
SALEM - 636 016.



B.Ed., Course  
Module Preparation

## Bonafide Certificate

Name of the Student Teacher : P. NIROSHINI

Register Number : 2021P32

Optional Subject : 1. Physical Science

2. Tamil

P. Niroshini  
Signature of the Student Teacher

P. Niroshini  
Signature of the Internal Examiner

P. Niroshini  
Signature of the External Examiner

Date : 18.05.2021

Station : Salem

# INDEX

Sl.No.	CONTENT	PAGE No.
1.	Introduction.	1
2.	Module	1
3.	Example and rationale	3
4.	Getting to know ADDIE	5
5.	ADDIE	7
6.	Analysis phase	9
7.	Design phase	11
8.	Development phase	13
9.	Implementation phase	13
10.	Evaluation phase.	15
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# INDEX

## CONTENT

PAGE No.

Sl.No.

12

Level - I

21

13.

Level - II

33

14.

Conclusion.

43

# MODULE PREPARATION

## INTRODUCTION:

What is instructional design? In short, instructional design is the process by which learning products and experiences are designed, developed and delivered. These learning products include online courses, instructional manuals, video tutorials, learning simulation etc. Instructional designers are the 'architects' of the learning experiences and the 'directors' of the instructional system design ISD process. The terms instructional design, instructional technology, learning experiences (Lx) design and instructional systems design (ISD), are sometimes used interchangeably. Below are the a few instructional design definitions from various sources.

## MODULE

In education, the term 'module' refers to an instructional unit that focuses on a

Particular topics. Although the details and activities vary according to the specific content, such as course and student level most educational modules include information about the topic, focus on student-centered learning activities and culminate in a project for students to demonstrate understanding.

### Examples and Rationale:

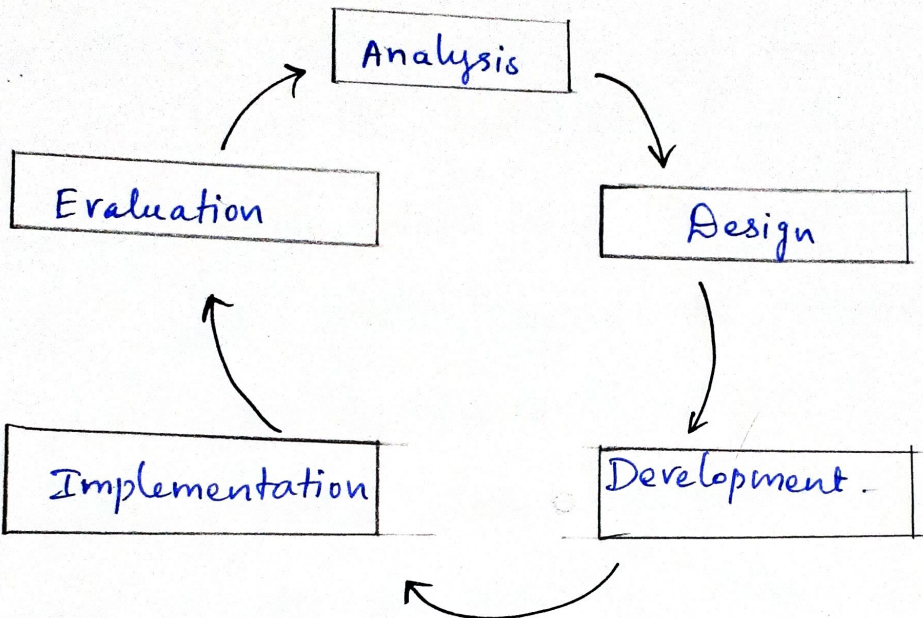
Modules generally begin with a research question to focus student thinking such as, How do tornadoes form? Students then gain basic information through reading or videos followed by exploration activities, such as using a tornado chamber. Modules may involve the study of any topic, such as computer animations, then engineering concepts, general electronic and global warming. Since modules are active rather than provide learning experiences students may be

more engaged, understand real-world application of the concepts and further develop higher-order cognitive abilities.

Getting to Know ADDIE:

In a nutshell, ADDIE is an acronym where every letter corresponds to one of the model's main phases: analysis, Design, Development, Implementation and the Evaluation. The ADDIE methodology was developed in Florida State University's Center of Educational Technology back in the seventies. Initially, the model was meant to be used in the US armed forces, a fact to which it owes its streamlined process and clear delineation of phases. Despite being nearly forty years old, the methodology has not fallen out of use, indeed methodology to this day.

ADDIE:





## ANALYSIS PHASE:

In the Analysis phase, instructional Problem should be clarified and the instructional objectives should be established. During this phase, the learning environment and learners existing knowledge and skills should be identified. During their phase, the instructional designer should frame the problem, gather data, determine needed resources, drafts a timeline. The following questions should be addressed during this phase.

who is the audience and what are their characteristics?

what are the new behavioural outcome?

what learning constraints exist?

what delivery options exist?

what is the timeline for the project completion?

## DESIGN PHASE:

The design phase includes learning objectives, assessments, exercises, content, subject matter analysis, lesson planning and media selection.

It is important that the design phase is systematic and specific. Systematic means that the material is logically identified, developed, and evaluated to achieve the project's goals. Specific means that all instructional elements needs are enumerated with alteration to details.

The following steps should be done during this phase: documentation and application of the project, design strategy learned on intended outcomes, design of the user interface and user experience. Action of the lessons prototype and application of graphic design principle.

## DEVELOPMENT PHASE:

In the development stage, the developer's put together everything that they created in the design phase. Also in this phase, programmers develop the final product. Then the designers review and revise the project according to the feedback they receive from the client.

The following questions are answered during this phase:

were the analysis for the project done correctly?

were the instructional objectives appropriate for the learning needs of the participants?

to what extent are the user instructional strategies used in the lesson successful?

It is possible to accurately assess learning with this lesson?

## IMPLEMENTATION PHASE:

Implementation is the actual presentation of the courses or learning materials to the

learners. This is also the phase where the person responsible for the course or the manager ensures that all the materials are in place, and that the learning application is functional.

EVALUATION PHASE:

\* The evaluation phase typically has two parts: formative and summative. Formative evaluation should be part of each stage of the ADDIE process. Summative evaluation consists of tests designed specifically for the content, and the feedback received from the end user.

\* In the first phase, analysis, the problem is defined, the learning goals are established, and the learners' pre-existing skills are identified.

\* The design phase deals with learning objectives, assessment, instruments, exercises, content, subject matter analysis, lesson planning and media selection. Essentially this is the strategy phase.

(7)

\* In the design phase, graphics, are chosen, storyboards are created, the design phase, graphics are chosen, the delivery method is decided and the whole process is outlined.

\* The development phase is where the course is actually created from the storyboards and media assembled in the design phase. The course is then tested and debugged if necessary, reviewed and revised.

\* The implementation phase is where learners begin taking the training.

\* The evaluation phase is just that, evaluating the course, the learning objectives, whether those objectives are being met or whether the course needs the additional revisions and additions for greater clarity.

(14)

## PHASES IN MODULE PREPARATION:

- \* Objectives
- \* specific needs
- \* Materials / Tools and methods.
- \* Activities / Research Action.
- \* Length of Analysis.
- \* Expected outcomes
- \* Benefits and utility of Analysis
- \* Assessment / Evaluation
- \* Follow - up activities.

**LEVEL - 1**

## STANDARD - IX

### Periodic classification of Elements.

In this lesson periodic classification of Elements is the method of classification of different elements in different groups on the basis of their Properties is known as Periodic classification. In this lesson clearly explain the elements and their arrangements. The elements are arranged in groups and Periods in the Periodic table. The elements are grouped on the basis of their characteristic. It explains the postulates, advantages and limitations of modern periodic table. In this lesson also explain the metals and non-metals, metalloids and alloys.

#### Objectives:

\* To help the students will be able to know the concept of classification of elements in early days.

\* It helps to understand the classification of elements based on the electronic configuration.



\* To guide them to early understand the concept of classification of elements, and metals and non-metals.

Specific need:

There is a specific need to learn about the periodic table elements. To learn what is elements atomic number, and their properties. To knowledge the students about periodic table elements to be used in their higher classes.

Method:

The teacher shows the one element and the student who chosen that element should come front and describe that elements and their properties. As they learn all elements in periodic table. The learning through experience and understanding by their own will be easily understood and be in memory for a



Long Period of time.

Materials / Tools:

1. Picture of Periodic table elements.
2. charts.

Activities : Grab & speak

The teacher asked each student to choose the element from the periodic table, then the teacher asked the student to imagine themselves as an element which they choose from the periodic table. The students have to consider themselves as an element and describe about the element which they choose.

Research sites :

$\bar{x}$  - standard.

Length of analysis:

45 minutes.

Expected outcome:

The student can be able to know the periodic table elements and their properties, thoroughly with proper explanations. Students can improve their skill of Inquiry.

Benefits of utility of Analysis:

This activity helps the students to come out of their fear and to develop self-confidence by speaking in front of all students. It also helps the students to learn or understand the content easily and thoroughly. The content is understood by their own will be easily understood and be in memory for a long period of time.

Assessment / Evaluation:

- Clear Explanation
- Delivery of the full content.
- Correct Pronunciation of elements.

Follow up activities:

Choose other element in periodic table, which did not chosen before and understand the elements nature and their properties. This will helps to recall the other elements too.

**LEVEL-2**

உதய : 111

தலைக்குள் யர் உகம்

உகத்திலேயே மகமக உயப்பாணசு மன்து மோன.  
 அதன் உசயப்பாடுகள் உந்நதயாணதைய மட்கமன்வ, புகிராணதைய.  
 மடுத்குய டேததததம், அந்நயிவனாநார்கதம் கிந்நத  
 ததாபர்ந்ந அந்நயர்ந்ந தகாண்படுக்கிறார்கள். கிந்ந  
 மடுபக்ச்சுத்திலேயே மகமக அடர்ந்தியான சிக்கொள யடு  
 மகமக அகதவன்துநாள் அக மன்து மோன துநாள் அந்ந  
 தகாண்கிறார்கள். அகதவன் கடுகமும் தகாண்கள் அந்நதக  
 மன்வயன். அந்நதவன் துநாறு மன்வயன் அந்நதவசு பத்தாயுடும்  
 கைய நியுராண்கள் அந்நதவ.

நோக்கங்கள் :

- \* மோனயன் அமைப்பாண பற்றி அந்ந்ந தகாண்ததல்.
- \* மோனயன் பண்புகண தந்ந்ந தகாண்ததல்.
- \* மோனயும் உடல் மியக்கமம் பற்றி புரிந்ந தகாண்ததல்.
- \* மோனயன் உணர்வுகள் மற்ரும் நிணதவாந்நதல் பற்றி அந்ந்ந தகாண்ததல்.

திரும்பட்ட தேவைகள் :

அன்றாட வாடிக்கையாளர் மனையாளர் பயன்பாடு  
இன்றியமையாதது சீர்தகு. அத்தகைய மனையாளர்  
சேவாப்பாடுகள் மற்றும் அது சேவாப்பாடு அதிகத்தினை  
தேர்வாக அறிந்து கொள்ளுதல். நாம், உலகம் நிறைய  
பாடுகளை நம் உருப்பிய சேவாப்பாடுக்கிடையே.  
தினையாளர்மேல் சேவாப்பாடுக்கிடையே அனை அந்த சேவாப்பாடு  
சேவகர்கள். இவ்வாறு அன்றாட வாடிக்கையாளர் பயன்பாடு  
பாடுகளை மனையாளர் பற்றி தேர்வாக அறிந்து கொள்ளுதல்

பாடுகள் / பாடுகள் மற்றும் தேவைகள் :

- \* கண்ணி
- \* மனையாளர் உறவு
- \* நாயம்.

சேவாப்பாடுகள் / சேவா ஆராய்ச்சிகள் : பாடு - தேடு - கரு

அதிரவர் மனையாளர் அமைப்பை மாணவர்களுக்கு  
அதிரவர்கள் உடையாமை காண்பதற்கு அமைக்கிறார்.  
அத்தகைய உடையாமைகளை, மனை காண தனினை பற்றி  
கருவம் உடையாமை அமைக்கப்படுகிறது.



அதில் நோயும் அதன் உடிகாட்டலாம் உடன்  
 தியக்கம் செயல்படும் அதும் தன்வாக அமைந்திருக்கிறது.  
 மேலும் நோயும் அதன் உணர்வுகளும், நினைவாற்றும்  
 மீறும் நோயின் தன்வாக உணர்வுகளும் தன்வாக உணர்வு  
 திரிதரம். ஆகியவற்றின் அந்த மீறலானவை மாணவர்களுக்கு  
 பரிசுடும் செய்கிறார். மீறலானவை பார்த்து பிறகு, ஆகியவற்றின்  
 மாணவர்களை ஒரு குகைகளாக மாற்றுகிறார். பின்  
 ஆகியவற்றின் ஒரு நுண்ணயத்தின் சினை அடுகிறார். நுண்ணயம்  
 தன்வாக அடுகிறார். தேன் ஒரு நோயாளியை பற்றி  
 ஒரு தகவலையும், நுண்ணயம் பூவாக அடுகிறார் திரிதரங்கள்  
 ஒரு நோயாளியை பற்றி ஒரு தகவலையும் கூற வேண்டும்.

அடுத்தடுத்தகவல்கள்:

45 நிமிடங்கள்.

அறிபார்த்தப்பட்ட நுண்ணயம் உணர்வுகள்:

- \* திரிதரம் பரிசுடானவை மாணவர்களின் அறிவுத்திறனை  
மீறும் கவனிக்கும் திறனை மேம்படுத்துகிறது.
- \* மாணவர்களின் கற்றல் அறிவையான உணர்வு அமைகிறது.

\* மானாசர்க்களம் சீவ கர்மம் பற்றும் சீவ சிந்தனைகளை உணர்ச்சியுற செய்கிறது.

வினாக்கள்:

I. சீவான உடையை தேர்ந்தெடுக்க :

1. நேமை — திருந்து மனைக்கிறது.

- அ) சூடுகத்தண்பூம்      ஆ) உயர்ந்தம்
- ஆ) நரம்பன்              எ.) துண்டன்

2. நேமையை — பாகங்களாக பிரிக்கின்றனர்.

- ஆ) மூன்று              ஆ) கிழங்கு
- ஆ) மூன்று              எ.) நான்கு

3. நேமையின் அமைப்பைக் கூறுக?

4. நேமையின் உணவு யாது?

5. நேமையும் உள் உயக்கீழம் உயமா?

தொடர்புள்ள செயல்கள்:

நேமையின் உயர்வு, உட்கு செயல்களின் பற்றி

அறிந்து கொண்டு உருக.

உள்ளே, நடுவே, பின்னே சிக்கிய பற்றி

தொடுக்க அதனை எடுக்க உருக.

Conclusion :

Thus, the teaching module will help the teachers to analyse the effectiveness of his/her teaching by making / creating some activities, in the classroom itself. It also enriches the students' performance inside the class and to create an interesting atmosphere in the students' learning process. Thus, the teacher of any subject should prepare a teaching module before taking the class.

L. P. M. J. W.



# SRI SARADA COLLEGE OF EDUCATION

(AUTONOMOUS), SALEM - 636 016.

(AFFILIATED TO TAMILNADU TEACHERS EDUCATION UNIVERSITY, CHENNAI)

RE-ACCREDITED BY NAAC WITH "A" GRADE (III Cycle)



**B.Ed. Course**  
**Website Analysis**

Name : M-FATHIMA BEE

Reg. No. : 2021P30

Optional : PHYSICAL SCIENCE

# SRI SARADA COLLEGE OF EDUCATION

(AUTONOMOUS)

SALEM - 636 016.



**B.Ed., Course**  
**Website Analysis**

## Bonafide Certificate

Name of the Student Teacher : M. FATHIMA BEE

Register Number : 2021P30

Optional Subject : 1 PHYSICAL SCIENCE

2 ENGLISH

*M. Fathimabee*

Signature of the Student Teacher

*Dr. P. N. N. N.*

Signature of the Internal Examiner

*Dr. P. N. N. N.*

Signature of the External Examiner

Date : 18.05.2022,

Station : SALEM.

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WEBSITE

ANALYSIS

(3)

# WEBSITE ANALYSIS

## INTRODUCTION:

The capacity to critically analyse information is central within the research process of locating resources for academic purpose. Apart from being able to assess the relevance, accuracy and sustainability of information to your particular purpose. Using poor quality information to your sources of worse still. Citing misinformation will degrade the quality our work. While evaluation of information sources has always been important. This step is particularly important when using information found on internet.

## Need to Analyse:

There is no central governing body for internet publishing. There is no system of quality control; there is no editors and documents can be easily falsified and can be copied. This is the fundamental nature of the World wide web is that it provides means for people to express themselves; It allows for

freedom of speeches and ideas, and allows people to meet. As long as the web retain these qualities of freedom, it will also remain unmonitored and unregulated. This, therefore leaves a large responsibility on us, the user to careful and critically evaluate the website we use as information sources

### Internet:

The Internet is an International network of computers linked to exchange information. The word is a contraction of "International" and "Network". Every computer that people use, gets registered and people have to pay to get an address for that computers, called a Uniform Resource Locator - URL.

### Search Engines:

Search Engines are World wide Web sites that use computers to catalogue millions of webpages, which one can use to search for specific text. Most people tend to use their favourite "engine". So of the most popular are Google, Ask, Alta, Excite, Yahoo, Hot, Bot and Ail.

## Google:

Google is the 'Big Daddy' of all search engines. It is a metasearch engine that conducts the search across many different search engines at one. It delivers results that pay attention to the proximity of the search terms you enter. Google also ranks its results based on the amount of "hits" (and links from other sites) per URL.

You can also go to Google and type in new search engines and get a list of what's new out there in "air" land.

## Search Tips:

If we are using a search engine and are either getting too much or too little, here are some search tips. Be as specific as possible; check our spelling change pluralisation (or) possible; check quotes or "put a phrase" in "quotes". Searching with a broad key word like "Algebra" will return a number of irrelevant results. Narrow the keyword such as "Algebraic identity" or "Quadratic Equations". This will result in more specific information.

## How to analyse a Website:

Although many people evaluate websites (particularly commercial sites) based purely on their look and feel, for academic purposes it is far more important to evaluate the content of the site. Don't be put off a site because it is unattractive, much of the quality information resides on sites that are unadorned by flashy graphics and images. On the flip side of the coin, many sites that look great have little real substance. If you are citing information for assessment purposes, the reader (or the marker) will be unimpressed by the attractiveness of your sources, more that you have been able to verify the accuracy and objectivity of the content it contains when using a website for research purposes, in the first instance look for sites that contains at least the author's name, title or position, organisational affiliation contact details and the date of creation. Sometimes you will be tipped off by the general tone or style of a site, or the apparent competence of the writer. However, some authors go to great lengths

to disguise the main objectives of a site and you will need to look much harder and further for clues about the overall integrity and accuracy of the information provided. You should then go on to test for some further indications of quality in the area of credibility, accuracy, objectivity and support as outlined below.

### Credibility:

Before acting on or making any decision based on information, most people take into account the credibility of the sources. Assessing the credibility of a page involves working out who is responsible for the information, if they are who they say they are and whether or not they are a qualified authority. Regardless of how a professional a site looks, we must investigate its credibility if we want to use the information contained on the site.

### Author Details:

If we find information on a website we wish to use or quote we must first attempt to find the authors (or) the authority institutions details.

\* Look for the author's name and/or email address on the webpage [try the top and bottom of the page, side bars, menu bars or About us sections].

\* Is the author qualified in the field?

\* Are they a reliable authority on the subject?

\* Does the authoring organisation or person match the URL.

### Uniqueness:

Uniqueness refers to the amount of original material on a site that cannot be obtained elsewhere. If we have spent any time searching the web, we will know that we often end up at the same site, or else different sites containing the same or very similar information and links. When evaluating a site, be clear about whether the information contained is primary or secondary information, primary information is original material produced by owners of the site with mainly internal links. i.e links to other parts of the site on the same server secondary information is very common on the web and is typified

by lists of links to other sites on the same server. Secondary information is very common on the web and is typified by lists of links to other sites.

Completeness:

A clue is the credibility of a site is its completeness. This can be due to the site being unfinished and still a work in progress or because it is only meant to serve as a taster to material that can be accessed or purchased elsewhere.

- \* check that there are no dead links
- \* Are all links like [not greyed out]
- \* There should be no 'under construction signs'.
- \* Does the site include all the necessary information or just an abstract, table of contents or reviews?

Audience:

This area will be touched on again under objectivity, but it also applied in this, the area of website credibility. Before using information from a website, do take into account the intended audience. For example,



a site about volcanoes for primary school children will probably not provide the depth or complexity of information necessary for a university Geology paper.

Accuracy:

Once you have checked the overall credibility of a website, you should move on to evaluate the accuracy of the information presented. Information from even the most respected source is useless if it's wrong or out dated.

Currency of Information:

Some information is timeless. It remains static regardless of how long ago it was published. This applies to works which as reveals. However, much information today has a very limited shelf life. Technology, news dates extremely quickly. Advances in medical research makes things of fantasy ten years ago a reality today. Websites that contains information such as news, weather, timetables, prices, statistics or latest research obviously need to be updated.

on a regular basis or they may provide misinformation. This is not to say that all older information is useless. Information written sometime ago can be useful for comparing current information with [example: The growth in a population or comparisons between treatment or disease]. But it must always be obvious how old information is:

- \* Look for the date of creation on any information you wish to use.
- \* Check for the date of last update.
- \* Check for statements regarding the frequency of updates.
- \* Be sure as to whether you are viewing current or archived information.

### Typographical Errors / Spelling Mistakes:

In addition to lowering the tone and taking away from the overall integrity of a site, typographical spelling and grammatical errors can affect the accuracy of the information provided. Be away of a site that includes many of these errors as it is difficult to tell whether the errors are due to carelessness or an intent

to mislead.

Factual:

Look for supporting evidence of information supplied in the way of references or bibliographies while some sites claim to be presenting the fact further investigation may reveal they are presenting either a biased view or completely inaccurate information. This point will be elaborated on in the objectivity section.

Objectivity:

Objectivity refers to how balanced and fair the information is while it should obviously be truthful, the information presented should be balanced, cover all sides of the story and should be presented without bias to help gauge the objectivity of a site, you should first ascertain the original goal of the site and whether there has been only sponsorship associated with the information

The greatest danger to the objectivity of a site is a conflict of interest. For example, an article on the dangers of babies drinking soy milk that is sponsored by the dairy association

Information and activity...  
different types of...  
to recognise any...  
site

Support refers to how well the information  
can be verified and corroborated.  
If we have any questions about  
a site or the information presented,  
it offered should assist us in resolving  
grey areas. Information should be  
supported by references and bibliographies.  
is especially important in other circumstances.  
If we are unable to find any references  
that corroborate the information  
presented be wary. We should not seek to  
circumvent the information and our references  
that support the information.  
look for:

- References and Bibliographies
- Supporting documents and/or links
- Contact follow up details supplied

The information and activity earlier in this topic about different types of websites should help you to recognise any conflict of interest on a website.

### Support:

Support refers to how well the information presented can be verified and corroborated if necessary. If we have any questions (or) reservation about a site or the information presented, the support offered should assist us in clarifying any grey areas. Information should be supported by references and/or bibliographies. This is especially important when presenting statistics. If we are unable to find any other sources that corroborates the information presented be wary. We should be able to triangulate the information. [Find two other sources that support the information.]

### Look for:

- \* References and Bibliographies.
- \* Supporting documents and/or links
- \* Contact follow up details supplied.

LEVEL-I

# IDENTIFICATION AND CATALOGUING WEBSITE -I

URL of website : <https://www.acs.org/content/acs/en/education/resources/highschool/chemmatters/archive/2014-2015/smart-phones.html>

Title of Article/ Work : Smartphones : Smart Chemistry - American chemical society .

Author/Last Name : Rodrig

Author/First Name : Brian

Author Address : Columbus, Ohio

Editor : NIL

Publisher Information : ACS - Chemistry for Life

Date of Publication : April / May 2015

Date of Access : NIL

Font size of website : Legible , Normal

Pictures : Pictures of Smartphone (1)  
Chemical structures (3) Figures (2)

Videos / Animations : NIL

Background Colour : Black and white

Font Colour : Blue, Black and Brown .

External links (any) : 3

References (if any) : 2

ChemMatters

## Smartphones: Smart Chemistry

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April/May 2015  
By Brian Rohrig



[Download PDF](#)



Language and vocabulary : It is simple and understandable.

Exercise Details : Not available

Level of Subject Matter : Graduate level

Subject Matter of the Site : <sup>Very</sup> Informative

Overall vision:

The site is very attractive to its intended audience. The title of the site is indicating the content. The use of the texts and the chemical structures comparing the silicon dioxide and figures which is used to explain the smartphone displays is more appropriate. The use of text and figure is appropriate for the level of understanding of the audience. The Printable version of the complete text page is offered. We can scroll down the page available easily and it also offers a pdf to be downloaded to read the article. This site develops a great understanding about the chemistry of the smartphones.

## IDENTIFICATION AND CATALOGUING WEBSITE - II

URL of the website : <https://www.interviewgig.com/smartphone-smartchemistry-chemical-elements-of-smartphone/>  
 Title of the Article : Smartphone - smart chemistry: Chemical Elements of Smartphone  
 /work :  
 Author (Last Name) : NIL  
 Author (First Name) : VINEETHA  
 Author Address : NIL  
 Editor : NIL  
 Publisher Information : INTERVIEW GIG  
 Date of Publication : 25 Dec  
 Date of Access : NIL  
 Font size of website : Legible, Understandable  
 Pictures : 1  
 Video/animations : NIL  
 Background colour : Black and white  
 Font colour : Black and orange  
 External links / if any : NIL  
 References if any : NIL

# SMARTPHONE -SMART CHEMISTR Y: CHEMICAL ELEMENTS OF SMAR TPHONE


HOME » ALL ARTICLES » SMARTPHONE -SMART CHEMISTRY: CHEMICAL ELEMENTS OF  
SMARTPHONE

25 Dec

Smartphone -Smart Chemistry: Chemical Elements of Smartph  
one

Admin | chemical, Chemical Elements of Smartphone, Smartphone -Smart  
Chemistry: Chemical Elements of Smartphone, Technology | All Articles: Technology |  
0

## Smartphone -Smart chemistry: Chemical Elements of Smartphone

 SEMRUSH  
EASY-TO-USE ONLINE MARKETING  
TOOLS TO GROW YOUR BUSINESS

Could you imagine a day without your smart phone, not only it but it is making the users also smarter day by day. Amazing you can surf the internet ,listen to music and text your friends with something that fits in the palm of your hands .None of the things would be possible without chemistry and every time you use your smartphone you are putting chemistry into action.

Smart Chemical Elements to Smart Chemistry

- If you are wondering what chemistry has to do with smart phones just look at the periodic table of the 83 stable elements, at least 70of them can be found in smart phones.
- An average smart phone contains up to 62 different types of metal.
- Single I-phone contains 8 different rare earth metals.
- Phone cannot vibrate without neodymium and dysprosium.
- Rare earth metals are used in electronic

Million:  
product  
amazo



> [Shop N](#)

### ALL CATEGORIES

- Administrator
- Adobe Topics
- All Articles
- Apache Products
- Banking Topics
- Big Data Analytics
- Business and Project Topics
- Business Intelligence
- C
- Cloud Computing
- Database and SQL Topics
- DevOps Tools
- Digital Marketing
- Education

Language and vocabulary: Simple and understandable by readers

Exercise Details : NIL

Level of Subject Matter : XI Standard

Subject Matter of the Site : Informative, Author Introduction

### Overall Mission & Vision:

The language is simple and the article commences about the smart chemical elements present in the smartphone. The Smartphone display, the hands behind a touch screen. The chemical elements used in the screen, battery, electronics and casings are all explained legibly and pointwise. The text on the site is easily readable. The Background is white and black fonts and Co-ordinates the text colour. Site offers new materials on the subject which is to be learnt by every learner. Each and every element used in the smartphones is explained and concluded.

## Criteria for comparative evaluation of the websites

Title of the Website	Smartphones: Smart Chemistry / American Chemical Society	Smartphones: Smart Chemistry / Chemical Elements of Smartphone InterviewGig
Address on URL	<a href="https://www.acs.org/content/acs/en/education/resources/highschool/chemmatters/past-issues/archive-2014-2015-smartphones.html">https://www.acs.org/content/acs/en/education/resources/highschool/chemmatters/past-issues/archive-2014-2015-smartphones.html</a>	<a href="https://www.interviewgig.com/smartphone-smart-chemistry-chemical-elements-of-smartphone/">https://www.interviewgig.com/smartphone-smart-chemistry-chemical-elements-of-smartphone/</a>
Date Visited	16.05.2022	16.05.2022
Design	The webpage width can be seen on the avient screen on the monitor	Entire page width can be seen on the screen of the monitor
	The site's general appearance is attractive and intended	The text on the screen is easily readable

to the audience  
Industry shaped  
monitor

Background is  
co-ordinated with  
text colours.

The chemical structure  
and the figures  
explaining the working  
of a smartphone  
succices the article

The webpage is  
too long.

The graphics is  
easily readable.

The site scrolls with  
advertisements.

The use of text and  
structures, figures is  
appropriate to the  
level of understanding  
of the targeted audience

The text style is  
suitable for the  
school students  
as it is listed out  
as points

Content

It is useful for the teachers, college students and high school students.

It gives simple and reliable notes for the content.

Information is presented in a wider sense, so briefly.

The information is useful and accurate.

The title of the site is indicative for its content.

The title of the site is indicative for its content.

Can see meaningful information within few seconds.

A printable handout version for school students.

Structures and pictures are used.

A picture is used.

Technology

Technology

Printable version the text is available as a pdf.

Can see reliable information within minutes.

All quicklinks, links works, pictures, references are downloaded quickly

Every link works picture is rapidly downloadable.

Credibility

The author's institution is given. links are current.

Only Author is just mentioned

The author of the site is given.

The author of the site is given, no further details

The site is being updated. Other related article is given

Other related articles are also given. other Posts are also available.



## Pedagogy

The site develops creative thinking

The site is very attractive process. It encourages the learners.

The site encourages higher order thinking.

The site helps to learn the new words.

Site creates the higher order thinking.

The site has references for other posts.

Site encourages to learn new information.

The site provides a plenty of new information.

RUBRICS FOR EVALUATING WEBSITES

Title of websites	Smartphones: Smart chemistry	Smartphones: Smart chemistry - Chemical elements of Smartphones																								
Address on URI	<a href="https://www.acs.org/content/acs/en/education/resources/highschool/chemmatters/pastissues/archive-2014-2015/smartphones.html">https://www.acs.org/content/acs/en/education/resources/highschool/chemmatters/pastissues/archive-2014-2015/smartphones.html</a>	<a href="https://www.interviu.com/smartphone-chemistry-chemical-elements-of-smartphones">https://www.interviu.com/smartphone-chemistry-chemical-elements-of-smartphones</a>																								
Criteria for Evaluation Activity / Credibility 1 Author's name is given 2 The author's organisation or institution is given	<table border="1"> <thead> <tr> <th colspan="3">Rating</th> </tr> <tr> <th>Not so good 1</th> <th>okay 2</th> <th>Good 3</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>✓</td> </tr> <tr> <td></td> <td></td> <td>✓</td> </tr> </tbody> </table>	Rating			Not so good 1	okay 2	Good 3			✓			✓	<table border="1"> <thead> <tr> <th colspan="3">Rating</th> </tr> <tr> <th>Not so good 1</th> <th>okay 2</th> <th>Good 3</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>✓</td> </tr> <tr> <td>✓</td> <td></td> <td></td> </tr> </tbody> </table>	Rating			Not so good 1	okay 2	Good 3			✓	✓		
Rating																										
Not so good 1	okay 2	Good 3																								
		✓																								
		✓																								
Rating																										
Not so good 1	okay 2	Good 3																								
		✓																								
✓																										

3. The author's qualification and experience are given

4. The author's contact information is given.

Accuracy/Awareness

5. The data that the webpage was last update is given.

6. The information is up to date.

7. The information is complete.

8. There are no spelling mistakes or errors

9. Bibliographies or references are given

Bias/objectivity

10. Statement of purpose / scope

11. Site avoids social bias (gender, racial, religious etc...).

12. Information presented or factual and primary in again.

13. Site enrich and expands users imagination.

14. The information presented free on advertising



16. site offers a new/harmful subject area.

17. Information is useful.

18. Additional resources are included.

19. Site integrates several content area, design/technology.

20. The pictures are relevant and clear

21. The pages are easy to move around.



22. All of the links work.

23. The pages load quickly

24. Text is easy to read.

25. Designs are appropriate

Total score

Rating based

on

Total Score



62



45



LEVEL-III

IDENTIFICATION AND CATALOGUING WEBSITE - I

URL of the website } : <https://www.theindiaforum.in/amp/article/life/art-ms-subbulakshmi>.

Title of the Article/ work : The Life and Art of M. S. Subbulakshmi.

Author [First Name] : Arvind

Author [Last Name] : Subramanian

Editor : The India Forum

Publisher Information : The India Forum

Date of Publication : March 02, 2021

Date of Access : 16.05.2022

Font size of the website : legible.

Pictures : 2

Video / Animations : NIL

Background colour : Light Blue

Font colour : Black and red





## The Life and Art of M.S. Subbulakshmi

*A new biography gives us a sense of the many personalities that made up “MS”, the extraordinary exponent of Carnatic music, during her life-journey.*

Keshav Desiraju: *Gifted Voice: The Life and Art of M.S. Subbulakshmi*, HarperCollins, 2021



ARVIND SUBRAMANIAN

MARCH 02, 2021

Dawn breaks and south India wakes to the celestial voice of Madurai Shanmukkavadivu Subbulakshmi, “MS” to the world. Roused from their slumber too are the various gods and goddesses of the Hindu pantheon as MS sings -chants the *Venkateshwara Suprabhatam* or *Vishnu Sahasnamam* or *Bhaja Govindam*. This has been true for several decades now, and TikTok, YouTube and their mutating successors notwithstanding, it will probably be true for the next several decades as well. Even in this globalized world, the staggering cultural phenomenon that is MS, is insufficiently recognized beyond India’s borders. Why blame the world, it is inadequately appreciated even within India, north of the Vindhyas?

Keshav Desiraju’s superb new biography of the incomparable MS is therefore an overdue call to India and the world to take notice. *Gifted Voice* succeeds at many

External links [if any]: NIL

References [if any] : 3

Language and vocabulary : Simple & Contemporary

Excercise Details : NIL

Level of the Subject : Class IX  
Matter

Subject Matter of the Site: For Students, Musicians  
Informative broader,  
Author Introduction.

Overall Vision:

The site is pleasing to its intended audience. The title of the site is indicating the content. The author has compiled the life biography of M.S. Subulakshmi from various books on the biography of this great legend and has quoted the essence of her biography and compiled it as a single treasure of article.

It will be highly useful for the students which is related to their activity of Unit-6 in class 9 textbook. The website is damn simple and comes up with new sanskrit words.

IDENTIFICATION AND CATALOGUING WEBSITE-II

URL of the website : <https://www.culturalindia.net/indian-music/classical-singers/m-s-subbulakshmi.html>

Title of the Article/ work : M.S. Subbulakshmi

Author [First Name] : NIL

Author [Last Name] : NIL

Editor : CULTURAL INDIA

Publisher Information : CULTURAL INDIA

Date of Publication : NIL

Date of Access : NIL

Font size of the website : Legible

Pictures : 5

Video/Animation : NIL

Background colour : white

Font colour : Black

External links [if any] : NIL

References [if any] : NIL

Madurai Shanmukhavadiyu Subbulakshmi, commonly known as M. S. Subbulakshmi, was an eminent Indian Carnatic singer.

[Cultural India \(/index.html\)](#) : [Indian Music \(/indian-music/index.html\)](#) : [Classical Singer \(/index.html\)](#) : M. S. Subbulakshmi

## M. S. Subbulakshmi

### Fast Facts

Date of Birth: 16 September, 1916

Place of Birth: Madurai, Tamil Nadu

Birth Name: Kunjamma

Date of Death: 11 December, 2004

Place of Death: Chennai, Tamil Nadu

Profession: Carnatic singer

Spouse: Kalki Sadasivam

Father: Subramanialyer

Mother: Shanmu kavadiver Ammal

Awards: Bharat Ratna, Ramon Magsaysay Award, Sangeet Natak Akademi Award

Madurai Shanmukhavadiyu Subbulakshmi is a name that is synonymous with the world of Carnatic music. This flawless singer, whose voice almost had a divine power, is the first singer to be presented with India's highest civil honour, the Bharat Ratna. When she was honoured with the Ramon Magsaysay award, which is considered as Asia's Nobel Prize, she became the first Indian musician to do so. Subbulakshmi, fondly addressed as M.S by her fans, was a true pioneer of anything that has to do with women empowerment. She led by example and showed the way to contemporary women of her era. Though she is famous as an exponent of Carnatic music, her expertise in Hindustani classical music was not short of brilliance. Subbulakshmi didn't contain herself with just music, for she forayed into the field of acting as well.

### Indian Music (/indian-music/index.html)

[Hindustani Gharanas \(/indian-music/hindustani-gharanas.html\)](#)

[Hindustani School \(/indian-music/hindustani-school.html\)](#)

[Music Glossary \(/indian-music/music-glossary.html\)](#)

[Indian Music Instruments \(/indian-music/music-instruments.html\)](#)

[Carnatic Music \(/indian-music/carnatic-music.html\)](#)

[Indian Film Music \(/indian-music/film-music.html\)](#)

[Indian Fusion Music \(/indian-music/fusion.html\)](#)

[Ghazals \(/indian-music/ghazals.html\)](#)

[Folk Music \(/indian-music/folk-music.html\)](#)

[Shayari \(/indian-music/shayeri.html\)](#)

[Ustad Bismillah Khan \(/indian-music/classical-singers/bismillah-khan.html\)](#)

[Pandit Shivkumar Sharma \(/indian-music/classical-singers/shivkumar-sharma.html\)](#)

[Ustad Zakir Hussain \(/indian-music/classical-singers/zakir-hussain.html\)](#)

[Pandit Ravi Shankar \(/indian-music/classical-singers/ravi-shankar.html\)](#)

[Indian Classical Singers \(/indian-music/classical-singers/index.html\)](#)

[Ustad Amjad Ali Khan \(/indian-music/classical-singers/amjad-ali-khan.html\)](#)

[Ustad Bade Ghulam Ali Khan](#)

Language and vocabulary : Simple and lexicon

Exercise Details : NIL

Level of Subject Matter : Class: IX

Subject Matter of the Site : VERY INFORMATIVE

Overall Vision:

The website provide fast facts on her biography. It gives information to suffice the intended audience. The Introduction about the legendary classical singer is fabulous. The life biography of the singer has been categorised as childhood education, career, foreign trips. A Date with Cinema, Famous works, An elite list of fans, Humanitarian works, Personal life and family, Death. To Honour her contribution a separate section ~ Legacy is given what role she played magnanimously in the Indian Cinema. The Audience or the reader can take up the information corresponding to the desired section.

## CRITERIA FOR COMPARITIVE EVALUATION OF TWO WEBSITES

<p>Address of URL</p>	<p><a href="https://www.theindiaforum.in/amp/article/life-and-art-ms-subbulakshmi">https://www.theindiaforum.in/amp/article/life-and-art-ms-subbulakshmi</a></p>	<p><a href="https://www.culturalindia.net/indian-music/classical-singers/ms-subbulakshmi.html">https://www.culturalindia.net/indian-music/classical-singers/ms-subbulakshmi.html</a></p>
<p>Title of the website</p>	<p>The Life and Art of M.S. Subbulakshmi</p>	<p>M. S. Subbulakshmi</p>
<p>Date Visited</p>	<p>16.05.2022</p>	<p>16.05.2022</p>
<p>Design</p>	<p>The webpage width can be seen on the current screen on the monitor</p>	<p>Entire page width can be seen on the monitor</p>

The site's general appearance is attractive.

The site's general appearance is simple.

The webpage comprises of the compilation of the biography of M.S. Subbulakshmi

The webpage is too long

The graphics is readable

The site scrolls with lot of advertisements

Content

The use of text is simple. The author quotes the biography of the legendary from the three books

The text style is simple for the readers and the audience. The content is provided as quick facts.

and highlights  
the content.

He quotes the  
important life  
events

He highlights  
even the author's  
of the book that  
he has defined,  
written etc...

The content is  
purely based on the  
biography with the  
essential sub-  
reading which will  
be useful.

The content has  
highlighted the  
legacy of the  
legendary Singer to  
show how her presence  
was in Indian Cinema

Technology

Can search  
for the proper  
context of the  
article after  
minutes.

A Picture is  
used.

Can see  
meaningful information  
within few  
seconds.

5 Pictures are  
used.



<p>The entire article is super simple for the readers who are interested in biography of M.S. Subbulakshmi</p>	<p>The entire article quotes from other books on the biography of the singer</p>
<p>Every link works Picture is downloadable</p>	<p>No link is present.</p>
<p>No author</p>	<p>The author's institution is given.</p>
<p>Links are current</p>	<p>Links are current</p>
<p>Other links are also available</p>	<p>The site is being updated</p>

Credibility

# Pedagogy

The site develops creative thinking and critically ponder upon the words

The site develops higher order thinking.

The site is attractive

The site has reference for other posts.

The ~~site~~ provides opportunity to learn new words

The site provide a plenty amount of new information on the biography of the legendary Singer

RUBRICS FOR EVALUATING WEBSITES

Address of URL	https://www.theindiaforum.in/amp/article/life-and-art-m-s-subbulakshmi	https://www.culturalindia.net/indian-music-classical-singers/m-s-subbulakshmi.htm																		
Title of websites	The Life and Art of M.S. Subbulakshmi	M.S. Subbulakshmi																		
Criteria for Evaluation	<table border="1"> <tr> <td>Not so good</td> <td>1</td> </tr> <tr> <td>Okay</td> <td>2</td> </tr> <tr> <td>Good</td> <td>3</td> </tr> </table>	Not so good	1	Okay	2	Good	3	<table border="1"> <tr> <td>Not so good</td> <td>1</td> </tr> <tr> <td>Okay</td> <td>2</td> </tr> <tr> <td>Good</td> <td>3</td> </tr> </table>	Not so good	1	Okay	2	Good	3						
Not so good	1																			
Okay	2																			
Good	3																			
Not so good	1																			
Okay	2																			
Good	3																			
<p>Activity/Credibility</p> <p>1. Author's Name is given</p> <p>2. The Author's organisation / institution is given</p>	<table border="1"> <tr> <td>Not so good</td> <td>1</td> <td>✓</td> </tr> <tr> <td>Okay</td> <td>2</td> <td>✓</td> </tr> <tr> <td>Good</td> <td>3</td> <td>✓</td> </tr> </table>	Not so good	1	✓	Okay	2	✓	Good	3	✓	<table border="1"> <tr> <td>Not so good</td> <td>1</td> <td>✓</td> </tr> <tr> <td>Okay</td> <td>2</td> <td>✓</td> </tr> <tr> <td>Good</td> <td>3</td> <td>✓</td> </tr> </table>	Not so good	1	✓	Okay	2	✓	Good	3	✓
Not so good	1	✓																		
Okay	2	✓																		
Good	3	✓																		
Not so good	1	✓																		
Okay	2	✓																		
Good	3	✓																		

3. The Author's qualification and experience are given

4. The author's contact information is given.

Accuracy / Awareness

5. The data that the web page was last update is given

6. The information is up-to-date

7. The information is complete

8. The information is relevant



mistakes/error

9. Bibliographies or references are given

Bias/objectivity

10. Statement of purpose / scope

11. Site avoids social bias [gender, racial, religious etc...]

12. Information presented on factual and primary in again.

13. Sites enrich and expands users imagination

14. The information presented is free of advertising

✓

15. Site offers a new area

✓

16. Information is useful

✓

17. Additional resources are useful.

✓

18. Site integrates several content area, design/technology

✓

19. The pictures are relevant and clear

✓

20. The pages are easy to move around

✓

21. All of the links work.

22. The pages load quickly

23. Text is easy to read

24. Designs are appropriate

25. Free from server errors

Total score

Rating based on

Total score



64



58



CONCLUSION:

Thus, from the website analysis I have learnt many things to analyse the two different websites for teaching-learning purpose. This is very useful and effective in analysing the different websites. Through this I have learnt how to give the best to the students I have also learnt some new processes and ideas on website analysis through this record.



# Exposure to Braille



## Sri Sarada College of Education (Autonomous), Salem – 16

The facilities available for the visually impaired

- Desktop – 1 include a Braille reader and JAWS (Job Access With Speech)
- Talking Computer Software, Joy Stick, a Braille Scanner – 1,
- Tape Recorder – 2,
- Braille Type Writing Machine – 2,
- Braille Audio CD, Braille Slates – 2,
- Stylus -2, and a Touch Screen Monitor – 1 (Kiosk).

**The Braille reader and JAWS software** allow users to access and navigate digital content using either Braille or spoken word, enabling the visually impaired to access and interact with digital content. The Joy Stick provides an alternative input method for users who may find using a traditional mouse or keyboard difficult. **The Braille Scanner** allows users to scan printed documents and convert them into Braille format for easier reading. **The Tape Recorder** provides an alternative method of recording and playing back audio content. **The Braille Type Writing Machine** provides a traditional method for typing out Braille documents. **The Braille Audio CD** is a form of pre-recorded content that users can listen to access information. The Braille Slates and Stylus provide a traditional method for manually writing Braille content. Finally, **the Touch Screen Monitor (Kiosk)** provides a tactile interface for users to interact with digital content. By touching different areas of the screen, users can access different functions and navigate through menus and applications. These facilities can help improve the quality of life for individuals with visual impairments by providing greater access to information and enabling greater independence.

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## Braille Materials and Equipment



## White Cane



## Braille Pencil & Eraser



**Sri Sarada College of Education (Autonomous), Salem – 636 016**  
(Re-Accredited with 'A' Grade by NAAC)  
Affiliated to Tamil Nadu Teachers Education University, Chennai

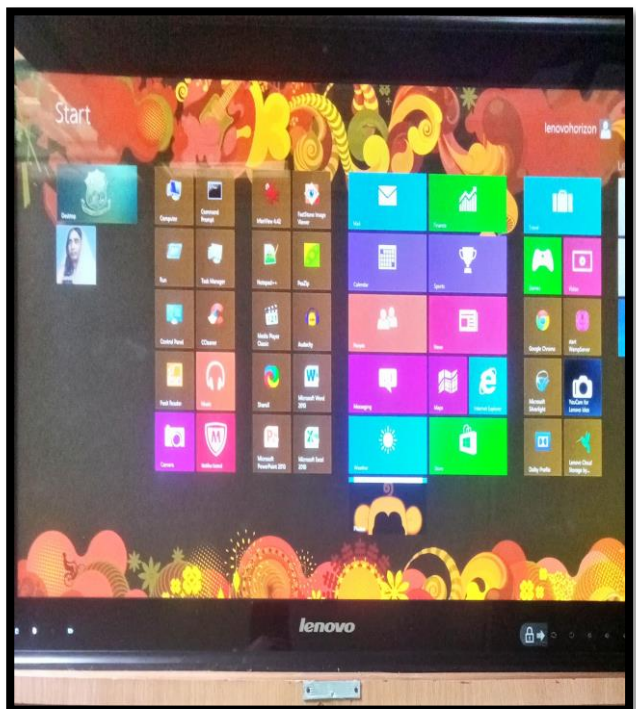
**Scanner**



**CD & Tapes**



**Touch Screen**

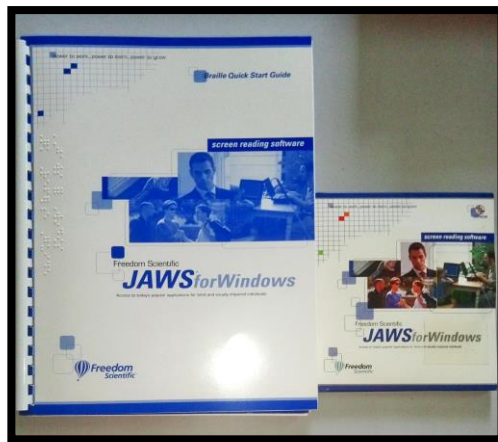


**Sri Sarada College of Education (Autonomous), Salem – 636 016**  
(Re-Accredited with 'A' Grade by NAAC)  
Affiliated to Tamil Nadu Teachers Education University, Chennai

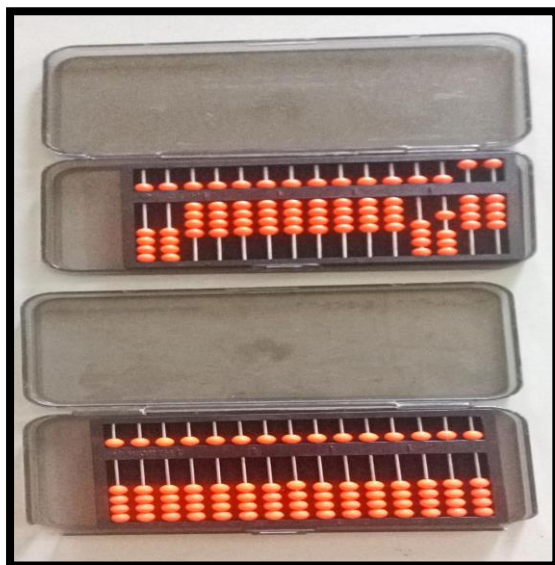
**Braille System Software**



**JAWS Screen Reading Software**



**Blind Abacus**



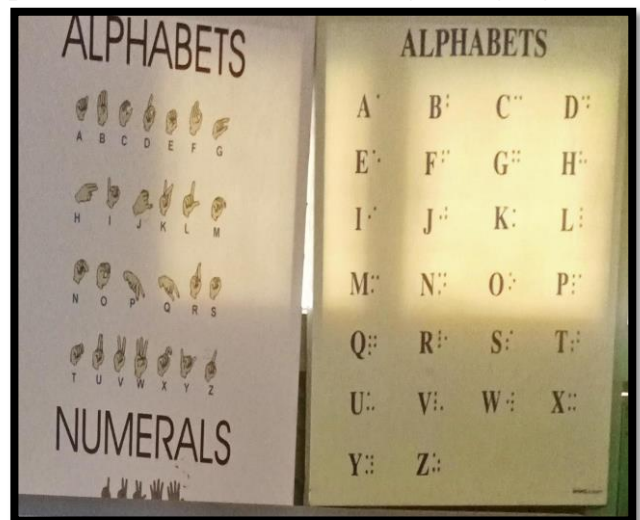
**Perkins Brailier**



**Philips Cassette Recorder**



**Alphabets Boards of Braille & Sign Language**

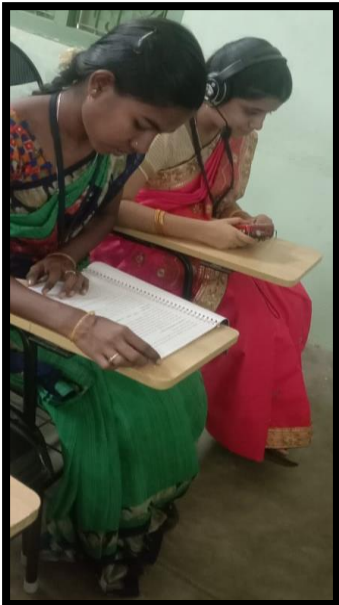
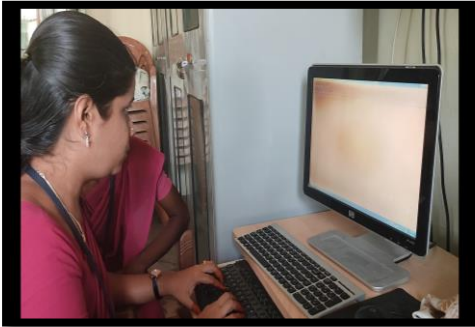


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**Visually Challenged Student works in Braille Software System**



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