

3 Blue print

| Thinking skills<br>Form of question<br>content | LOTS        |   |               |   |          |   | HOTS      |   |            |   |          |   | Total items | Total scores |   |   |   |   |    |
|--|-------------|---|---------------|---|----------|---|-----------|---|------------|---|----------|---|-------------|--------------|---|---|---|---|----|
|  | Remembering |   | Understanding |   | Applying |   | Analysing |   | Evaluating |   | Creating |   |             |              |   |   |   |   |    |
|  | 0           | 5 | 0             | 5 | 0        | 5 | 0         | 5 | 0          | 5 | 0        | 5 |             |              | 0 | 5 |   |   |    |
| Dalton atomic Theory                           |             |   |               |   |          |   |           |   |            |   |          |   |             |              |   |   | 2 | 3 |    |
| Particles smaller than atom                    |             |   |               |   |          |   |           |   |            |   |          |   |             |              |   |   |   | 3 | 6  |
| Rutherford model                               |             |   |               |   |          |   |           |   |            |   |          |   |             |              |   |   |   | 2 | 3  |
| Bohr model                                     |             |   |               |   |          |   |           |   |            |   |          |   |             |              |   |   |   | 8 | 13 |
|  |             |   |               |   |          |   |           |   |            |   |          |   |             |              |   |   |   |   |    |

# ACHIEVEMENT TEST

## CHEMISTRY

Std:IX

Time:1 hr

Mark:25

### Instructions

- 10 minute cool off time is allotted for reading and understanding the question
- Answer all questions

### PART A

1. What you mean by atom? (1 mark)
2. Rutherford model of atom also called? (1 mark)
3. What is atomic number of  ${}_{18}^{40}\text{Ar}$ ? (1 mark)

### PART B

4. Write down postulates of Dalton atom modal? (2 mark)
5. Name some scientists and their contributions are given in table and match them suitably?

|                |   |                     |         |
|----------------|---|---------------------|---------|
| John Dalton    | - | Planetary modal     |         |
| Michel faraday | - | Atomic theory       |         |
| J J Thomson    | - | Discovered electron |         |
| Rutherford     | - | Low of electrolysis | (2mark) |
6. What is the features of electron, neutron? (2 mark)
7. Atoms are electrical neutral? (2 mark)
8. Most of the space in the atom is empty how can Rutherford arriving this solution? (2 mark)
9. Compare isobar and isotope? (2 mark)

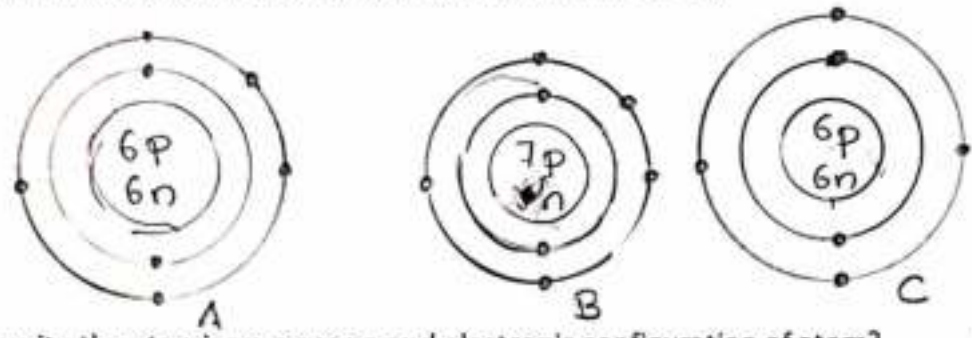
10. Find maximum number of electron which can be accommodate the "O" shell of an atom (2 marks)

### PART C

11. Atomic number of an atom  $Z=17$  mass no  $A=35$

- a) Find out the proton, electron and neutron in the atom? (1 mark)
- b) What is the electronic configuration? (1 mark)
- c) Draw the bohr modal of the atom?(2 mark)

12. Bohr modal of atom A,B,C are given (symbol are not real)



- a) write the atomic no mass no and electronic configuration of atom? (2 marks)
- b) Among these which are isotope why? (2 marks)

# DIAGNOSTIC TEST

## CHEMISTRY

Std:IX

---

### I. Fill in the blanks

1. Electrons \_\_\_\_\_ the nucleus of an atom
2. electron in each shell having \_\_\_\_\_
3. the energy of the shell increases as the distance from the nucleus \_\_\_\_\_
4. The total number of \_\_\_\_\_ and \_\_\_\_\_ in an atom called mass number

### II. choose the correct answer from the followings

5. When an electron jumps from its orbit to another orbit energy is
  - a) emitted only
  - b) absorbed only
  - c) no effect
  - d) emitted and absorbed
6. The orbit in which electron move according to bohr model
  - a) Elliptical
  - b) Cylindrical
  - c) Circular
  - d) Oval
7. The energy of each orbit is
  - a) Changed
  - b) Fixed
  - c) Not same
  - d) effected
8. the energy of each orbit is
  - a) electron
  - b) proton
  - c) neutron



# Observation Schedule for observation of lessons under constructivist format

## Observation Schedule for Observation of lessons under Constructivist format

|  | Components  | BA | A | O | YG |
|--|---|----|---|---|----|
| Preparation  | Strategies for building up suitable physical/emotional environment in the classroom   |    | ✓ |   |    |
|  | Strategies/techniques to reveal/convince the learner what he already knows  |    | ✓ |   |    |
|  | Setting up/building up a problematic situation  |    | ✓ |   |    |
|  | Strategies for disturbance free and disciplined grouping if required  |    | ✓ |   |    |
| Learning Phase   | Be sure about the pre-requisite skills for learning activity  |    | ✓ |   |    |
|  | Give clear and concise guidelines for group activity  |    |   |   |    |
|  | Specific instruction regarding the learning tasks-provided in the form of instruction cards /display devices like charts, OHP etc., |    |   |   | ✓  |
|  | Blackboard work/structured oral command etc.  |    | ✓ |   |    |
|  | Provide sufficient activity for each group/individual   |    |   |   |    |
|  | Systematic routine for procedural activities  |    | ✓ |   | ✓  |
|  | Involve all the student in the learning activities  |    | ✓ |   |    |
|  | Encourage non-volunteers  |    |   |   |    |
|  | Smooth transition - living minimal time between activities  |    | ✓ |   |    |
|  | Pace activities effectively   |    |   |   |    |
|  | Bringing the appropriate learning aids/designing the learning aids during the course of activities                                  |    | ✓ |   |    |
|  | Learning aids used effectively  |    |   |   |    |
|  | Continuous supervision aids keen observation of learning activities   |    |   |   |    |
|  | Strategies for managing interruptions   |    | ✓ |   |    |
|  | On the spot diagnosis of learning difficulties and corresponding remediation  |    |   |   |    |
|  | Teacher invention facilitating the progression of learning activities at the right direction and at the right place                 |    | ✓ |   |    |
|  | Strategies for no threatening and varied evaluation - observation/oral questions/ quiz/ reporting/ learning games                   |    | ✓ |   |    |
|  | Exploring and eliciting the constructed knowledge through reflective process  |    | ✓ |   |    |
|  | Make changes in the learning strategy based on student responses  |    |   |   |    |
|  | Adequacy of learning experiences in achieving the anticipated competencies  |    | ✓ |   |    |
| Provide opportunities for the use of pupil's observation book/ science diary   |   |    |   |   |    |
| Provide opportunities for collection of specimens/small scale survey/projects/small group discussion/seminar debate / field trips/ outdoor learning/ library |   |    | ✓ |   | ✓  |
| Consolidate pupil's presentation   |   | ✓  |   |   |    |
| Use of BB/OHP/Other display devices properly and simultaneously with the consolidation and elaboration of pupil's presentation                               |   | ✓  |   |   |    |
| Keeping records of student responses   |   |    |   |   |    |
| Pay attention of student responses   |   |    |   |   |    |
| Pay attention to the entire class  |   |    |   |   | ✓  |
| Adequate communication skills being displayed by the teacher   |   |    |   |   | ✓  |

|         |  |  |   |   |
|---------|--|--|---|---|
|         | Questions aptly worded and properly distributed                                    |  |   | ✓ |
|         | Proper class management  |  |   | ✓ |
|         | Teacher shows subject competency   |  |   | ✓ |
|         | Proper budgeting of time   |  | ✓ |   |
|         | Review the lesson properly.  |  |   | ✓ |
| closure | Follow up activities in tune with the knowledge constructed/ competencies acquired |  |   | ✓ |

BA-Below Average    A-Average    G-Good    VG-Very Good    E-Excellent



## Observation Schedule for Observation of lessons under Constructivist format

|  | Components   | BA | A | G | VG |
|--|--|----|---|---|----|
| Preparation  | Strategies for building up suitable physical/emotional environment in the classroom  |    |   |   | ✓  |
|  | Strategies /techniques to reveal/convince the learner what he already knows  |    |   |   | ✓  |
|  | Setting up/building up a problematic situation   |    | ✓ |   |    |
|  | Strategies for disturbance free and disciplined grouping if required   |    | ✓ |   |    |
|  | Be sure about the pre-requisite skills for learning activity   |    |   |   |    |
| Learning Phase   | Give clear and concise guidelines for group activity   |    |   |   | ✓  |
|  | Specific instruction regarding the learning tasks-provided in the form of instruction cards /display devices like charts, OHPetc., |    |   |   | ✓  |
|  | Blackboard work/structured oral command etc.   |    | ✓ |   |    |
|  | Provide sufficient activity for each group/individual  |    |   |   | ✓  |
|  | Systematic routine for procedural activities   |    |   |   | ✓  |
|  | Involve all the student in the learning activities   |    |   |   | ✓  |
|  | Encourage non-volunteers   |    | ✓ |   |    |
|  | Smooth transition - living minimal time between activities   |    |   |   | ✓  |
|  | Pace activities effectively  |    |   |   | ✓  |
|  | Bringing the appropriate learning aids/designing the learning aids during the course of activities                                 |    |   |   | ✓  |
|  | Learning aids used effectively   |    |   |   | ✓  |
|  | Continuous supervision aids keen observation of learning activities  |    |   |   | ✓  |
|  | Strategies for managing interruptions  |    |   |   | ✓  |
|  | On the spot diagnosis of learning difficulties and corresponding remediation   |    |   |   | ✓  |
|  | Teacher invention facilitating the progression of learning activities at the right direction and at the right place                |    |   |   | ✓  |
|  | Strategies for no threatening and varied evaluation - observation/oral questions/ quiz/ reporting/ learning games                  |    |   |   | ✓  |
|  | Exploring and eliciting the constructed knowledge through reflective process   |    |   |   | ✓  |
|  | Make changes in the learning strategy based on student responses   |    |   |   | ✓  |
|  | Adequacy of learning experiences in achieving the anticipated competencies   |    |   |   | ✓  |
|  | Provide opportunities for the use of pupil's observation book/ science diary   |    |   |   | ✓  |
| Provide opportunities for collection of specimens/small scale survey/projects/small group discussion/seminar debate / field trips/ outdoor learning/ library |  |    |   | ✓ |    |
| Consolidate pupil's presentation   |  |    |   | ✓ |    |
| Use of BB/OHP/Other display devices properly and simultaneously with the consolidation and elaboration of pupil's presentation                               |  |    |   | ✓ |    |
| Keeping records of student responses   |  |    |   | ✓ |    |
| Pay attention to student responses   |  |    |   | ✓ |    |
| Pay attention to the entire class  |  |    |   | ✓ |    |
| Adequate communication skills being displayed by the teacher   |  |    |   | ✓ |    |

APPENDIX V

# Rao Achievement Motivation Test

(For Grades 8 to 11)

By

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Reader in Education,

NCERT, NEW-DELHI

- 
- |                 |                              |
|-----------------|------------------------------|
| 1. Name... ..   | 5. Date of birth ... ..      |
| 2. School... .. | 6. Father's occupation... .. |
| 3. Class ... .. | 7. Parent's income... ..     |
| 4. Date ... ..  | 8. Address ... ..            |

### DIRECTIONS

This is an attempt to understand you and help you to do well, whatever you want to do in life.

Below are given twenty incomplete sentences with two possible alternatives, A and B which complete the sense. Both the statements are correct. Put a tick mark against **ONLY ONE** of the alternatives which you prefer.

This has nothing to do with your examination. Feel free to answer all the questions frankly. There is no time limit, but work rapidly.

- |   |   |
|---|---|
| 1. I enjoy reading ..                   | (a) a comic book.<br>(b) a book of adventure.   |
| 2. As a student I like to be called     | (a) a well dressed student in my class.<br>(b) an intelligent student in my class.      |
| 3. When I grow up, I want ..            | (a) to do something which others have not done.<br>(b) to lead a comfortable life.      |
| 4. As a doctor, I want                  | (a) to be a well know surgeon,<br>(b) to make a lot of money.                           |
| 5. During the holiday, I want           | (a) to visit my friends and relatives.<br>(b) to paint or write a story or a poem.      |
| 6. While answering in the examination . | I aim .<br>(a) at finishing before time.<br>(b) at answering better than my classmates. |
| 7. I want to become rich .              | (a) by earning money by hard work.<br>(b) by winning a prize in the lottery.            |



( 2 )

8. I take pride .  
(a) in standing first in my class.  
(b) in helping poor students.
9. It is my nature...  
(a) to take life easily.  
(b) to undertake difficult tasks.
10. I have a tendency. .  
(a) to work on a task till it is completed.  
(b) to change the task if I get bored.
11. I want to study well...  
(a) to avoid blame from my parents.  
(b) to excel others in my class.
12. As an Engineer, I would like  
(a) to construct a model building in my town.  
(b) to grow rich and buy a car.
13. After 10 years, I will be..  
(a) earning a lot of money  
(b) a well known person in my job.
14. As a student, I would like...  
(a) to study for my future career.  
(b) to visit different places in the world.
15. I feel very unhappy .  
(a) when some one knocks away my purse.  
(b) when I fail to do my best in the examination.
16. I want to do something...  
(a) which will make me wealthy.  
(b) which others can hardly do.
17. Generally I make friends...  
(a) with those who are intelligent.  
(b) with those who are clean and neat
18. I feel <sup>upset</sup> ~~upset~~  
(a) when I am blamed.  
(b) when I fail to succeed.
19. I feel my success depends...  
(a) upon my hard work.  
(b) upon my parents and relatives.
20. I want to practice hockey everyday....  
(a) so that I may be selected for the Olympic game.  
(b) so that I may keep my-self fit and healthy.

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APPENDIX

SCORING KEY FOR RAO'S ACHIEVEMENT MOTIVATION  
TEST

| Item No. | GAR | HAR |
|----------|-----|-----|
| 1        | A   | B   |
| 2        | A   | B   |
| 3        | B   | A   |
| 4        | B   | A   |
| 5        | A   | B   |
| 6        | A   | B   |
| 7        | B   | A   |
| 8        | B   | A   |
| 9        | A   | B   |
| 10       | B   | A   |
| 11       | A   | B   |
| 12       | B   | A   |
| 13       | A   | B   |
| 14       | B   | A   |
| 15       | A   | B   |
| 16       | A   | B   |
| 17       | B   | A   |
| 18       | A   | B   |
| 19       | B   | A   |
| 20       | B   | A   |

GAR (General achievement related) responses  
get one score

HAR (High achievement related) responses  
get three score

score obtained

| Sl No | Name                   | score         |
|-------|------------------------|---------------|
| 1     | Abhyith.S              | 40            |
| 2     | Haniya K               | 38            |
| 3     | K.kavya                | 32            |
| 4     | Indraprasad K          | 42            |
| 5     | Gaouthamkrishna v.p    | 42            |
| 6     | Krishnapriya M         | 50            |
| 7     | Rithika N              | 40            |
| 8     | Visal .C               | 32            |
| 9     | Raniya C               | <del>32</del> |
| 10    | Rahul.M                | 46            |
| 11    | Arun .K                | 36            |
| 12    | susmita PJ             | 50            |
| 13    | Thasleema C.A          | 46            |
| 14    | Jisha M                | 44            |
| 15    | Arunabhathy kuttappan. | 32            |
|       |                        | 38            |



|    |                  |            |
|----|------------------|------------|
| 16 | Anja C.B         | 38         |
| 17 | Twinkle Joy      | 32         |
| 18 | Saranya A        | 46         |
| 19 | Sreevithya K     | 42         |
| 20 | Munavar B        | 46         |
| 21 | Vishnu Gopal     | 42         |
| 22 | Shyama K         | 42         |
| 23 | Shalini Z        | 36         |
| 24 | Akhil Anu        | 39         |
| 25 | Abhinav V        | 49         |
| 26 | Saraj Sundaran   | 46         |
| 27 | Sreya Anil       | 40         |
| 28 | Mohammed Anshiba | 36         |
| 2A | Nandhana T       | 32         |
| 30 | Amjatha Mubaraq  | 42         |
|    |                  | <hr/> 1216 |

# Rosenberg's Self Esteem Scale

## Results

Total score 15-30 indicates high self-esteem  
 The score below 15 indicates low self-esteem

| Sl no | items  | S.A | A | DA | SD |
|-------|--|-----|---|----|----|
| 1     | I feel that I am a person of worth atleast on an equal plane with others |     |   |    |    |
| 2     | I feel that I have a number of good qualities.                           |     |   |    |    |
| 3     | All in all, I am inclined to feel that I am a failure                    |     |   |    |    |
| 4     | I am able to do things as well as most other people                      |     |   |    |    |
| 5     | <del>I feel that I do things as well as most other people</del>          |     |   |    |    |
| 5     | I feel that I do not have much to be proud of                            |     |   |    |    |
| 6     | I take a positive attitude towards myself.                               |     |   |    |    |

|    |  |  |  |  |  |
|----|--|--|--|--|--|
| 7  | on the whole I am satisfied with my self     |  |  |  |  |
| 8  | I wish I could have more respect for my self |  |  |  |  |
| 9  | I certainly feel useless at times            |  |  |  |  |
| 10 | At times I think I am no good at all         |  |  |  |  |
| /  |  |  |  |  |  |



## Tool for finding learning style preferences in learning in a group

of students

Questionnaire:

Name :

Class :

Roll No :

The modality (learning channel preference) questionnaire is given below. Complete the each statement by considering how it applies to you. Please respond to all questions.

- 1) . . . . . Never applies to me
- 2) . . . . . sometime applies to me
- 3) . . . . . often applies to me

Section one:

1. — I enjoy doodling and even my notes have lots of pictures and arrows in them.
2. — I remember something better if I write it down
3. — I get lost or am late if someone tells me how to get to a new place and I don't write down the direction
4. — when trying to remember someone's telephone number, or something new like that, it helps me to get a picture of it in my mind.

5. — if I am taking a test, I can see the textbook page where the answer is located
6. — it helps me to look at the person while listening. it keeps me focussed.
7. — using flashcards help me to retain material for tests
8. — it's hard for me to understand what a person is saying a joke when someone tells me
9. — it's hard for me to understand what a person is saying when there are people talking or music playing.
10. — it is better for me to get work done in quiet place

Total : —

---

### Section Two :

1. — My written work doesn't look neat to me, my papers have crossed out words.
2. — it helps to use my fingers as a pointer when reading to keep my place.
3. — papers with very small print, blotchy circles or poor copies are tough on me
4. — I understand how to do something if someone tells me, rather than having to read the same thing to my self.

5. — I remembered things that I hear, rather things that I see or read
6. — Writing is tiring. I press down too hard with my pen or pencil.
7. — My eyes get tired fast. even though the eye doctor says that my eyes are ok
8. — when I read, I mix up words that look alike such as "them and then", "bad" and "dad"
9. — it's hard for me to read other people hand writing.
10. — if I had the choice to new information through a lecture or text book, I would choose to hear it rather than read it

### section three

1. — I don't like to read directions, I had rather just start doing
2. — I learn best when I am shown how to do something and I have the opportunity to do it
3. — studying at a desk is not for me
4. — I tend to solve problems through a more trial and error approach. rather than from step by step method.
5. — Before I follow directions if help me to see someone else do it first



6. \_\_\_\_\_ I find my self needing frequent break while studying.


7. \_\_\_\_\_ I am not skilled in giving verbal explanations or directions

8. \_\_\_\_\_ I do not become easily lost, even in strange surroundings.

9. \_\_\_\_\_ I think better when I have the freedom to move around.

10. \_\_\_\_\_ when I can't think of a specific word. I will use my hands a lot and call something a "what - cha - ma - call - it" or a "thing - a - ma - jig".

Total : \_\_\_\_\_



TEACHER MADE WRITTEN TEST ESSENTIALLY  
BASED ON SUBJECT CONTENT 2020-2021

**B.S.S. B.Ed. TRAINING COLLEGE**  
**ALATHUR, PALAKKAD-DT, KERALA**



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Q

# ACHIEVEMENT TEST



# INDEX

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## Achievement test

An achievement test has a great significance in all type of instructional progress of the individual. Achievement test helps teachers to measure the progress of students in his or her subject area.

A test designed to assess the achievement in any subject with regard to a set of predetermined objective is called an achievement test.

Graubant defines an achievement test as "a systematic procedure for determining the amount a student has learned through instruction".

### Steps in the preparation of achievement test

1. Learning outcomes
2. Thinking skills
3. Preparation of test design
  - a) Weightage to objective
  - b) Weightage to content
  - c) Weightage to form questions
  - d) Weightage to difficulty level.

4. Preparation of blue print
5. Writing of test items
6. Preparation of questionwise Analysis
7. Preparation of scoring key and marking scheme



# ACHIEVEMENT TEST 1

# 1 Planning of the test

Achievement test  
Chemistry  
unit 1: structure of atom

class : ix

Mark : 25

subunits: 6

1. Dalton atomic theory
2. Particle smaller than atoms
3. Rutherford planetary model of atoms
4. Bohr's model of atom

Learning outcome

- 1) To understand main ideas of Dalton atomic theory
- 2) To understand contribution of different scientists
- 3) understand about different structure of atoms
- 4) To familiarise electronic configuration
- 5) understand about isotop, isobars.

## 2. Thinking skills

A. Lower order thinking skills (LOTS)

- Remembering
- Understanding
- Applying

B. Higher order thinking skills (HOTS)

- Analysing
- Evaluating
- Creating

## 3. Preparation of Test design

### a) Weightage to content

| Sl no | Content                    | Learning outcome | Score | Percentage      |
|-------|----------------------------|------------------|-------|-----------------|
| 1     | Dalton atomic Theory       | 1                | 3     | $\frac{12}{12}$ |
| 2     | Particle smaller than atom | 2                | 6     | 24              |
| 3     | Rutherford model           | 3                | 3     | 12              |
| 4     | Bohr's model of atom       | 3,4,5            | 13    | 52              |
|       | Total                      |                  | 25    | 100             |

## b) Weightage to thinking skills

| Sl no | Thinking skills  | score | percentage |
|-------|------------------|-------|------------|
|       | LOTS             |       |            |
|       | a) Remembering   | 4     | 16         |
|       | b) Understanding | 5     | 20         |
|       | c) Applying      | 6     | 24         |
|       | HOTS             |       |            |
|       | a) Analysing     | 4     | 16         |
|       | b) Evaluating    | 4     | 16         |
|       | c) Creating      | 2     | 8          |
|       |                  | 25    | 100        |

## c) Weightage to form of questions

| Sl no | Form of question | no of question | Marks | percentage |
|-------|------------------|----------------|-------|------------|
| 1     | Objective type   | 3              | 1     | 33         |
| 2     | Short Answer     | 7              | 2     | 28         |
| 3     | Essay            | 2              | 4     | 16         |
|       |                  | 12             | 25    | 100        |



d) Weightage to difficulty level

| Sl no | Difficulty level | Marks | Percentage |
|-------|------------------|-------|------------|
| 1     | Easy             | 4     | 18         |
| 2     | Average          | 15    | 60         |
| 3     | Difficulty       | 6     | 24         |
|       | Total            | 25    | 100        |



### 3 Blue print

| Thinking skills<br>Form of question<br>content | LOTS        |   |               |   |          |   | HOTS      |   |            |   |          |   | Total items | Total scores |   |   |   |   |    |
|--|-------------|---|---------------|---|----------|---|-----------|---|------------|---|----------|---|-------------|--------------|---|---|---|---|----|
|  | Remembering |   | Understanding |   | Applying |   | Analysing |   | Evaluating |   | Creating |   |             |              |   |   |   |   |    |
|  | O           | S | O             | S | O        | S | O         | S | O          | S | O        | S |             |              | O | S | O | S |    |
| Dalton atomic Theory                           |             |   |               |   |          |   |           |   |            |   |          |   |             |              |   |   |   | 2 | 3  |
| Particles smaller than atom                    |             |   |               |   |          |   |           |   |            |   |          |   |             |              |   |   |   | 3 | 6  |
| Rutherford model                               |             |   |               |   |          |   |           |   |            |   |          |   |             |              |   |   |   | 2 | 3  |
| Bohr model                                     |             |   |               |   |          |   |           |   |            |   |          |   |             |              |   |   |   | 8 | 13 |
|  | 4           |   |               | 5 |          |   | 6         |   | 4          |   |          | 4 |             | 4            |   |   | 2 |   |    |

# ACHIEVEMENT TEST

## CHEMISTRY

Std:IX

Time:1 hr

Mark:25

### Instructions

- 10 minute cool off time is allotted for reading and understanding the question
- Answer all questions

### PART A

1. What you mean by atom? (1 mark)
2. Rutherford model of atom also called? (1 mark)
3. What is atomic number of  ${}_{18}^{40}\text{Ar}$ ? (1 mark)

### PART B

4. Write down postulates of Dalton atom modal? (2 mark)
5. Name some scientists and their contributions are given in table and match them suitably?

|                |   |                     |         |
|----------------|---|---------------------|---------|
| John Dalton    | - | Planetary modal     |         |
| Michel faraday | - | Atomic theory       |         |
| J J Thomson    | - | Discovered electron |         |
| Rutherford     | - | Low of electrolysis | (2mark) |
6. What is the features of electron, neutron? (2 mark)
7. Atoms are electrical neutral? (2 mark)
8. Most of the space in the atom is empty how can Rutherford arriving this solution? (2 mark)
9. Compare isobar and isotope? (2 mark)

10. Find maximum number of electron which can be accommodate the "O" shell of an ele  
 (2m

### PART C

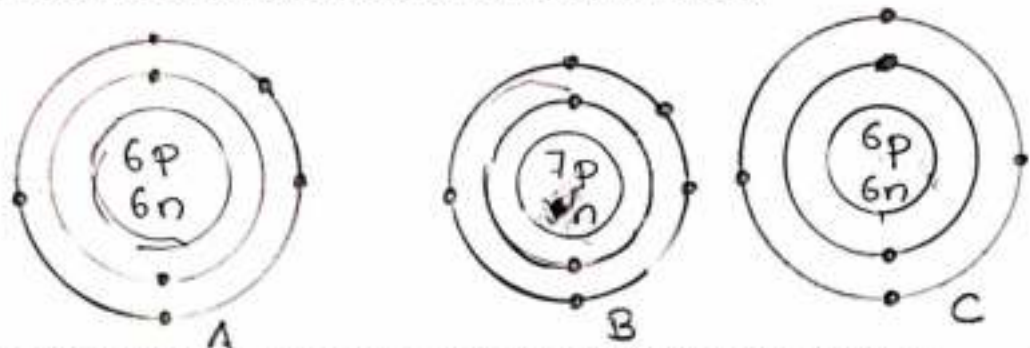
11. Atomic number of an atom  $Z=17$  mass no  $A=35$

- Find out the proton , electron and neutron in the atom?
- What is the electronic configuration?
- Draw the bohr modal of the atom?(2 mark)

(1 mark)

(1 mark)

12. Bohr modal of atom A,B,C are given (symbol are not real)



- write the atomic no mass no and electronic configuration of atom?
- Among these which are isotope why?

(2 mark)

(2 mark)



## Question wise Analysis

| Question no | Content                    | Learning outcome | Thinking Skill | Specific thinking | Form of question       | Difficulty | Score | Time  |
|-------------|----------------------------|------------------|----------------|-------------------|------------------------|------------|-------|-------|
| 1           | Dalton Atom model          | 1                | Remembering    | Describe          | objective Essay        | Easy       | 1     | 2 min |
| 2           | Rutherford model           | 3                | Remembering    | Name              | objective              | Easy       | 1     | 2 min |
| 3           | Bohr model                 | 3,4,5            | Analyzing      | calculate         | objective              | Average    | 1     | 3 min |
| 4           | Dalton Atom model          | 1                | understand     | Explain           | short Answer           | Average    | 2     | 5 min |
| 5           | Particle smaller than atom | 2                | Remembering    | Classify          | short Answer           | Easy       | 2     | 5 min |
| 6           | Particle smaller than atom | 2                | understanding  | classify Explain  | short Answer           | Average    | 2     | 5 min |
| 7           | Particle smaller than Atom | 2                | Evaluate       | justify           | Difficult short Answer | Difficult  | 2     | 5 min |

|    |                      |       |                                     |                      |              |           |   |        |
|----|----------------------|-------|-------------------------------------|----------------------|--------------|-----------|---|--------|
| 8  | Rutherford model     | 3     | Applying                            | Develop              | short Answer | Difficult | 2 | 5 min  |
| 9  | Bohr's model of atom | 3,4,5 | Evaluate                            | compose              | short Answer | Average   | 2 | 5 min  |
| 10 | Bohr's model of atom | 3,4,5 | Applying                            | calculate            | short Answer | Difficult | 2 | 5 min  |
| 11 | Bohr's model of atom | 3,4,5 | understand<br>Analysing<br>Creating | calculate<br>draw    | Essay        | Average   | 4 | 10 min |
| 12 | Bohr's model of atom | 3,4,5 | <del>Applying</del><br>Analysing    | calculate<br>Analyse | Essay        | Average   | 4 | 8 min  |

## scoring key

| Sl no | Answers                     | Mark / score |
|-------|-----------------------------|--------------|
| 1     | smallest particle of matter | 1            |
| 2     | Planetary model             | 1            |
| 3     | 18                          | 1            |

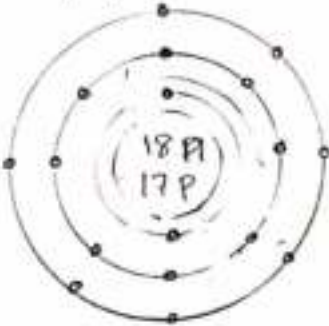
## Marking scheme

| Sl no | value point  | marks to each value | Total |
|-------|--|---------------------|-------|
| 4     | Matter is made up of minute particle called atom               | $\frac{1}{2}$       |       |
|       | Atom of same element are identical in properties size and mass | $\frac{1}{2}$       |       |
|       | Atoms of different element differ in their properties and mass | $\frac{1}{2}$       |       |
|       | Atom can neither be created nor be destroyed                   | $\frac{1}{2}$       |       |
| 5     | John Dalton - Atomic theory                                    | $\frac{1}{2}$       | 2     |
|       | Michael Faraday - Law of electrolysis                          | $\frac{1}{2}$       |       |
|       | JJ Thomson - Discovered electron                               | $\frac{1}{2}$       |       |
|       | Rutherford - Planetary model                                   | $\frac{1}{2}$       |       |



|   |   |   |   |
|---|---|---|---|
| 6 | <p>Proton</p> <p>positive charge</p> <p>Mass equal to that of hydrogen atom seen in the nucleus</p>                                 | 1 | 2 |
|   | <p>Neutron</p> <p>chargeless</p> <p>mass equal to that of hydrogen atom seen in nucleus</p>   | 1 |   |
|   | <p>Electron</p> <p>Negative charge</p>  |   |   |
| 7 | <p>Atom contains same number of proton and electron</p> <p>Positive charge of protons are cancelled by negative charge electron</p> | 1 | 2 |
| 8 | <p>Most of the alpha particle pass through the atoms with out any deviation</p>   | 2 | 2 |
| 9 | <p>Isotope</p> <p>Atoms of same element having the same atomic number different mass number</p>                                     | 1 |   |



|    |  |  |   |
|----|--|--|---|
|    | <p>130 bar</p> <p>Atoms of the same element having same mass number different atomic number</p>  | 1  | 2 |
| 10 | <p>The maximum number of electron can accommodate in any shell - <math>2^n</math></p> <p><math>2 \times 5^2 = 50</math></p>  | 1  | 2 |
| 11 | <p>i) protons = 17<br/>Neutron = 18</p> <p>ii) 2, 8, 7</p> <p>iii) </p>                           | $\frac{1}{2}$<br>$\frac{1}{2}$<br>1<br>2 | 4 |
| 12 | <p>i) A : Atomic no = 6<br/>Electronic configuration = 2, 4</p> <p>ii) B : Atomic no = 7<br/>Electronic configuration = 2, 5</p> <p>iii) C = Atomic no = 6<br/>Electronic = 2, 4</p> | 1<br>1<br>1                              |   |

|  |  |  |
|--|--|--|
| ii) A & C<br>having same atomic<br>numbers and mass number |  |  |
|  |  |  |

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# **DIAGNOSTIC TEST**



# INDEX

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## Diagnostic test

A test designed to identify and investigate the difficulties, disabilities, inadequacies and gaps of pupil in specific curriculum areas with a view to helping them to overcome those difficulties through remedial ~~instruction~~ is called a diagnostic test.

# Construction of diagnostic test

## 1. Purposeful planning

This aims at identification of learning materials that are known to have potential difficulties

## 2. Analysis of learning material concerned

The content should be thoroughly analysed first into teaching point. Each teaching point may include a number of stages. These stages should be arranged in the sequential order of difficulty as well as logical sequence

## 3. Writing of test items

Write the test items representing all the minute steps arising out of the analysis arrange these items in the order taking into consideration both sequence of the stage and difficulty level

## 4. Division of items into small section

Some time the total number of items will be very large and so more time will be required to work out these items. In such cases



items may be divided into two or three sections to the convenience of the learner.

### 5 Provision for clear instruction

Very clear instructions should be given to what pupil should do and how. If they find any difficulty level with a particular item they should be directed to pass onto the next item should be without wasting time.

# **DIAGNOSTIC TEST 1**

## 1. Purposeful Planning

Here I assumed that Bohr's model of atoms considered as difficult area. From the learning outcome 'To understand structure of atoms and to familiarise electronic configuration and isotopes' The learning outcome contains main content area of the unit also it include wider scope. It need more application level and skill also. so it make difficulty <sup>to</sup> understand the concept

## 2. Analysis of content area

Terms

Mass numbers, Atomic numbers, Electronic configuration

Facts

- Electrons revolve around the nucleus of atom
- Electrons revolve different paths and energy level
- The total no. of proton and neutron determines the atomic number and mass number
- Some elements having same atomic number and different mass number

Concepts

Electrons revolve around the nucleus of an atom in fixed path.

- Electrons revolve around the nucleus of an atom in a fixed path is called orbit and each orbit have definite energy level.

- The total number of proton and neutron in an atom is called mass number  $A$   $Z$

The total number of proton in an atom is called Atomic number  $A$



Atoms of the same element having the same atomic number and different mass numbers is called isotopes

# DIAGNOSTIC TEST

## CHEMISTRY

Std:IX

---

### I. Fill in the blanks

1. Electrons \_\_\_\_\_ the nucleus of an atom
2. electron in each shell having \_\_\_\_\_
3. the energy of the shell increases as the distance from the nucleus \_\_\_\_\_
4. The total number of \_\_\_\_\_ and \_\_\_\_\_ in an atom called mass number

### II. choose the correct answer from the followings

5. When an electron jumps from its orbit to another orbit energy is
  - a) emitted only
  - b) absorbed only
  - c) no effect
  - d) emitted and absorbed
6. The orbit in which electron move according to bohr model
  - a) Elliptical
  - b) Cylindrical
  - c) Circular
  - d) Oval
7. The energy of each orbit is
  - a) Changed
  - b) Fixed
  - c) Not same
  - d) effected
8. the energy of each orbit is
  - a) electron
  - b) proton
  - c) neutron

- d) none of these
9. The isotope of an element have
- a) Same number of neutron
  - b) Same atomic number
  - c) Same mass number
  - d) None of these
10. Which of the following have equal number of neutron and proton
- a) Hydrogen
  - b) Deuterium
  - c) Fluorine
  - d) chlorine

III. answer the following questions

11. what is the maximum number of electron that can accommodate K shell?
12.  $^{20}_{10}\text{Ne}$  the mass number will be?
13. How many neutron does the atom have  $Z=31$   $A=17$ ?
14. What is the electronic configuration of  $^6_6\text{C}$ ?

# Answers key

| Q no | Answers             |
|------|---------------------|
| 1    | Revolve around      |
| 2    | Definite energy     |
| 3    | Increases           |
| 4    | Proton and neutron  |
| 5    | Emitteed and absorb |
| 6    | Circular            |
| 7    | Fixed               |
| 8    | Proton              |
| 9    | same atomic number  |
| 10   | Deuterium           |
| 11   | 2                   |
| 12   | 20                  |
| 13   | 14                  |
| 14   | 2,4                 |



OBSERVATION MODES FOR INDIVIDUAL AND  
GROUP ACTIVITIES 2020-2021

**B.S.S. B.Ed. TRAINING COLLEGE**  
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# **OBSERVATION REPORT**

## observation report - 1

Name of the teacher : Shamna Z  
Name of the observer : Sethulekshmi P.R  
Time : 40 minute  
Topic : Capillarity  
class : IX

### Preparation phase

Teacher entered the class with a pleasant smile. she made a good rapport she started the class by displaying an image of an insect on the surface of  $H_2O$ . The topic was capillarity. she made the student attentive by asking questions.

### Learning phase

Teacher cited more activities related to capillary rise and depression and showed many image and ICT video regarding capillarity and discussed about adhesive and cohesive force. Teacher encouraged students by asking questions and also cleared the doubts.

### Closure Phase

At last teacher summarised the activities and important points related to the topic. and also provided follow up activity to students.



## Observation Schedule for Observation of lessons under Constructivist format

| Components   | BA | A | G | VG |
|--|----|---|---|----|
| Strategies for building up suitable physical/emotional environment in the classroom  |    | ✓ |   |    |
| Strategies/techniques to reveal/convince the learner what he already knows   |    | ✓ |   |    |
| Setting up/building up a problematic situation   |    | ✓ |   |    |
| Strategies for disturbance free and disciplined grouping if required   |    | ✓ |   |    |
| Be sure about the pre-requisite skills for learning activity   |    | ✓ |   |    |
| Give clear and concise guidelines for group activity   |    |   |   |    |
| Specific instruction regarding the learning tasks-provided in the form of instruction cards /display devices like charts, OHP etc.,                          |    |   |   | ✓  |
| Blackboard work/structured oral command etc.   |    | ✓ |   |    |
| Provide sufficient activity for each group/individual  |    |   | ✓ |    |
| Systematic routine for procedural activities   |    |   |   |    |
| Involve all the student in the learning activities   |    | ✓ |   |    |
| Encourage non-volunteers   |    |   | ✓ |    |
| Smooth transition – living minimal time between activities   |    | ✓ |   |    |
| Pace activities effectively  |    | ✓ |   |    |
| Bringing the appropriate learning aids/designing the learning aids during the course of activities   |    | ✓ |   |    |
| Learning aids used effectively   |    |   |   |    |
| Continuous supervision aids keen observation of learning activities  |    |   | ✓ |    |
| Strategies for managing interruptions  |    | ✓ |   |    |
| On the spot diagnosis of learning difficulties and corresponding remediation   |    |   | ✓ |    |
| Teacher invention facilitating the progression of learning activities at the right direction and at the right place  |    | ✓ |   |    |
| Strategies for no threatening and varied evaluation – observation/oral questions/ quiz/ reporting/ learning games  |    | ✓ |   |    |
| Exploring and eliciting the constructed knowledge through reflective process   |    | ✓ |   |    |
| Make changes in the learning strategy based on student responses   |    |   | ✓ |    |
| Adequacy of learning experiences in achieving the anticipated competencies   |    | ✓ |   |    |
| Provide opportunities for the use of pupil's observation book/ science diary   |    | ✓ |   |    |
| Provide opportunities for collection of specimens/small scale survey/projects/small group discussion/seminar debate / field trips/ outdoor learning/ library |    | ✓ |   | ✓  |
| Consolidate pupil's presentation   |    | ✓ |   |    |
| Use of BB/OHP/Other display devices properly and simultaneously with the consolidation and elaboration of pupil's presentation                               |    | ✓ |   |    |
| Keeping records of student responses   |    |   | ✓ |    |
| Pay attention of student responses   |    |   |   | ✓  |
| Pay attention to the entire class  |    |   |   |    |
| Adequate communication skills being displayed by the teacher   |    |   | ✓ |    |

Preparation

Learning Phase



|         |   |           |        |              |             |
|---------|---|-----------|--------|--------------|-------------|
|         | Questions aptly worded and properly distributed                                   |           |        | ✓            |             |
|         | Proper class management   |           |        | ✓            |             |
|         | Teacher shows subject competency  |           |        | ✓            |             |
|         | Proper budgeting of time  |           | ✓      |              |             |
|         | Review the lesson properly  |           | ✓      |              |             |
| closure | Follow up activities in tune with the knowledge constructed/competencies acquired |           |        | ✓            |             |
|         | BA-Below Average  | A-Average | G-Good | VG-Very Good | E-Excellent |

**B.S.S. B.Ed. TRAINING COLLEGE**  
ALATHUR, PALAKKAD-DT, KERALA



**RECORD OF DISCUSSION, DEMONSTRATION,  
AND CRITICISM LESSON PLANS**

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Reg. No. : .....B.A.A.T.T.P.N.O.O.G.&.....

Optional Subject : .....P.H.Y.S.I.C.A.L.....S.C.I.E.N.C.E.....

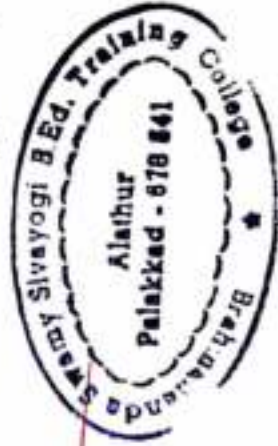
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*Prasanna*





DEMONSTRATION

REFLECT



## Demonstration Report - 2

Name of the teacher : Shanika

Class : VIII

Subject : Science

Date : 12/2/20

Topic : Inertia

### Introduction

Teacher came to the class with a pleasant smile. She started the class with an activity using a glass card and coin. She placed card on the top of the glass and a coin placed in a plate. She asked one student to come forward, strike the card and the coin went down the glass.

### Learning Phase

She made the class interesting by doing activities. She also told examples from daily life and used chat and model to explain the topic.

### Activity - 1

Teacher showed a Powerpoint presentation to show the examples of the topic 'Inertia'. Before going to the topic she told about so many examples of inertia of motion and rest from our daily life.



## Observation Schedule for Observation of lessons under Constructivist format

|  | Components   | BA | A | G | VG |
|--|--|----|---|---|----|
| Preparation  | Strategies for building up suitable physical/emotional environment in the classroom  |    |   |   | ✓  |
|  | Strategies /techniques to reveal/convince the learner what he already knows  |    |   |   | ✓  |
|  | Setting up/building up a problematic situation   |    |   |   | ✓  |
| Learning Phase   | Strategies for disturbance free and disciplined grouping if required   |    | ✓ |   |    |
|  | Be sure about the pre-requisite skills for learning activity   |    |   |   | ✓  |
|  | Give clear and concise guidelines for group activity   |    |   |   | ✓  |
|  | Specific instruction regarding the learning tasks-provided in the form of instruction cards /display devices like charts, OHPetc., |    |   |   | ✓  |
|  | Blackboard work/structured oral command etc.   |    | ✓ |   |    |
|  | Provide sufficient activity for each group/individual  |    |   |   | ✓  |
|  | Systematic routine for procedural activities   |    |   |   | ✓  |
|  | Involve all the student in the learning activities   |    |   |   | ✓  |
|  | Encourage non-volunteers   |    | ✓ |   |    |
|  | Smooth transition - living minimal time between activities   |    |   |   | ✓  |
|  | Pace activities effectively  |    |   |   | ✓  |
|  | Bringing the appropriate learning aids/designing the learning aids during the course of activities                                 |    |   |   | ✓  |
|  | Learning aids used effectively   |    |   |   | ✓  |
|  | Continuous supervision aids kept observation of learning activities  |    |   |   | ✓  |
|  | Strategies for managing interruptions  |    |   |   | ✓  |
|  | On the spot diagnosis of learning difficulties and corresponding remediation   |    |   |   | ✓  |
|  | Teacher invention facilitating the progression of learning activities at the right direction and at the right place                |    |   |   | ✓  |
|  | Strategies for no threatening and varied evaluation - observation/oral questions/ quiz/ reporting/ learning games                  |    |   |   | ✓  |
|  | Exploring and eliciting the constructed knowledge through reflective process   |    |   |   | ✓  |
|  | Make changes in the learning strategy based on student responses   |    |   |   | ✓  |
| Adequacy of learning experiences in achieving the anticipated competencies   |  |    |   | ✓ |    |
| Provide opportunities for the use of pupil's observation book/ science diary   |  |    |   | ✓ |    |
| Provide opportunities for collection of specimens/small scale survey/projects/small group discussion/seminar debate / field trips/ outdoor learning/ library |  |    |   | ✓ |    |
| Consolidate pupil's presentation   |  |    |   | ✓ |    |
| Use of BB/OHP/Other display devices properly and simultaneously with the consolidation and elaboration of pupil's presentation                               |  |    |   | ✓ |    |
| Keeping records of student responses   |  |    |   | ✓ |    |
| Pay attention of student responses   |  |    |   | ✓ |    |
| Pay attention to the entire class  |  |    |   | ✓ |    |
| Adequate communication skills being displayed by the teacher   |  |    |   | ✓ |    |

|         |  |  |  |
|---------|--|--|--|
|         | Questions aptly worded and properly distributed                                    |  |  |
|         | Proper class management  |  |  |
|         | Teacher shows subject competency   |  |  |
|         | Proper budgeting of time   |  |  |
|         | Review the lesson properly.  |  |  |
|         | Follow up activities in tune with the knowledge constructed/ competencies acquired |  |  |
| closure |  |  |  |

BA-Below Average    A-Average    G-Good    VG-Very Good    E-Excellent



Activity - 2  
she made clear about the topic inertia of rest and motion showing the experience of a person standing in the bus using two models. Allow that she gave an activity card to all students to mark whether the statements written in the cards are due to inertia of rest or motion.

Activity - 3  
she showed charts containing the definition of 'Newton's first law of motion' and also talk about more examples.

### Closure

Teacher concluded the topic by showing an animation video related to the topic inertia. It includes examples of the same. At the end of the class she has given follow up activities for the students.

Practicals



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MICRO  
TEACHING

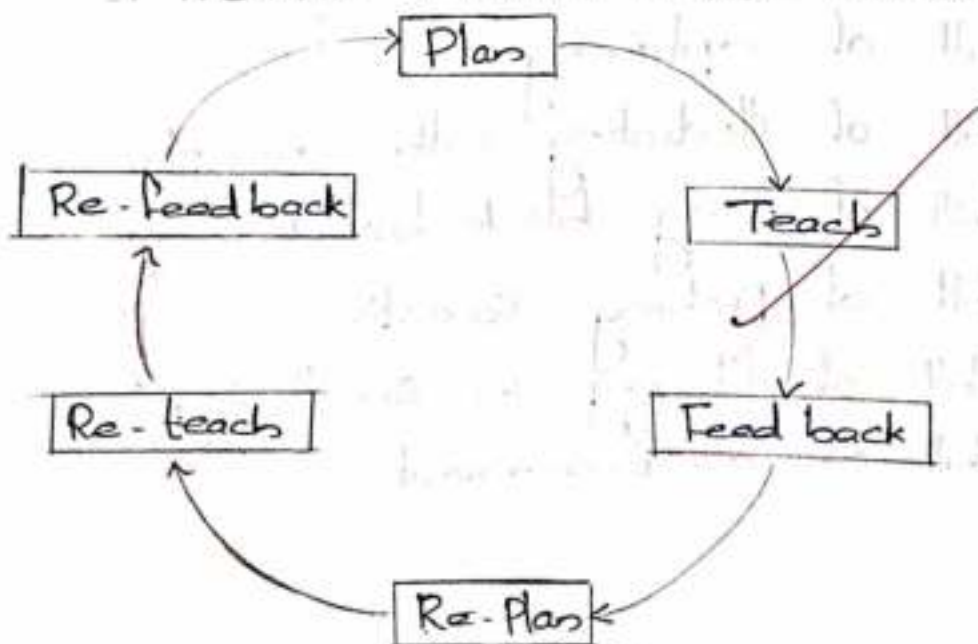
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| 15     | skill of stimulus variation, posing probing questions and black board | 2/9/19  | 47       |

# MICRO TEACHING

Micro teaching is a training procedure for teaching preparation aimed at simplifying complexities of regular teaching process. Micro teaching is a scaled down sample of teaching in which a teacher teaches a small unit to a small group of 5 to 10 pupils for a small period of 5 to 10 minutes. Such a situation offers a helpful setting for a teacher to acquire new teaching skills and to refine old ones. Micro teaching is defined as "a scaled down teaching encounter in a class size and class time". - Dwight W. Allen

## MICRO TEACHING CYCLE





# INTEGRATION OF SKILLS

Having armed the teacher trainees with a battery of teaching subskills, the next stage is the integration of those subskills into a major skill. A deliberate programme for integration of subskills is called link practice or link lessons.

## CORE TEACHING SKILLS

Some of the skills are extensively used in routine teaching by all teachers. These skills are known as core teaching skills. They are,

1. skill of introducing a lesson
2. skill of stimulus variation
3. skill of explaining
4. skill of illustrating with examples
5. skill of using black board
6. skill of probing questions
7. skill of fluency in questioning
8. skill of reinforcement

MICROLESSON

# MICRO LESSON ON THE SKILL OF INTRODUCING A LESSON - PLAN

|  |   |
|--|---|
| Name of the student teacher: Shamnaz<br>subject: Physics<br>Topic: Distillation<br>Teach / Re-teach: Teach | class: VIII<br>Date: 16.8.19<br>Duration: 5 min |
|--|---|

Objective: To practice the skill of introducing a lesson

## Components of the skill

1. use of previous knowledge
2. use of appropriate device
3. Motivation
4. continuity



| student teacher behaviour   | student behaviour                                  | components   |
|---|--|--|
| <p>Good morning<br/>know you are familiar with salt. in our daily life we use salt for different purpose. What are the uses of salt?</p>  | <p>Good morning<br/>Mostly used in Kitchens</p>    | <p>use of previous knowledge</p>                               |
| <p>Good<br/>Where we get salt from<br/>We know it. Very good<br/>common salt is obtained from sea water and also it is a mixture of salt and water. isn't it</p>                                | <p>sea water</p>                                   | <p>Motivation<br/>Use of previous knowledge<br/>Motivation</p> |
| <p>How the salt separate from sea water?</p>  | <p>By evaporation</p>                              | <p>Use of previous knowledge<br/>Motivation</p>                |
| <p>Very good<br/>By evaporation the water vapour evaporated out and salt obtained. in this process water is not obtained for our use<br/>just imagine a vessel with sea water. what happens</p> | <p>After sometime the water get evaporated and</p> | <p>Continuity<br/>Use of previous knowledge</p>                |



|   |  |   |
|---|--|---|
| <p>was it heated<br/>Excellent.</p> <p>Here, there is a difference in boiling point of water and salt. Water evaporate faster. From this knowledge we can able to separate water and salt as useful products.</p> <p>Are you know water vapourise faster<br/>Good</p> <p>This water vapour collected in an another vessel and remain salt there. This method is called distillation</p> | <p>Common salt obtained</p> <p>Yes</p> | <p>Motivation</p> <p>use of previous knowledge<br/>continuity<br/>use of previous knowledge<br/>continuity</p> <p>Motivation<br/>use-of appropriate device<br/>continuity</p> |
|---|--|---|

observation schedule for skill of introducing a lesson

| components                | Student-1 |       | Student-2 |       | Student-3 |       |
|---------------------------|-----------|-------|-----------|-------|-----------|-------|
|                           | Tally     | Total | Tally     | Total | Tally     | Total |
| use of previous knowledge |           | 5     |           | 4     |           | 5     |
| use of appropriate device |           | 1     |           | 1     |           | 1     |
| Motivation                |           | 5     |           | 5     |           | 5     |
| continuity                |           | 4     |           | 3     |           | 3     |

# RATING SCALES 2020-2021

## B.S.S. B.Ed. TRAINING COLLEGE ALATHUR, PALAKKAD-DT, KERALA



Name : Selvakumari . P . R  
Reg. No. : BAATIPN006  
Optional Subject : Physical Science

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**SEMESTER II**

**TASKS & ASSIGNMENTS**

## EDU 08 ASSESSMENT FOR LEARNING

### TASKS:

1. Prepare a tool for measuring any of the affective outcomes of the learner, administer it to a group of students ( $N > 30$ ) and interpret the result.
2. Visit nearby school and collect information regarding the advantages and disadvantages of CCE from teacher and prepare a report.



# EDU 08 ASSESSMENT FOR LEARNING

## Task 2

Prepare a tool for measuring any of the affective outcome of the learner administer it to a group of students and interpret the result

'Rao Achievement motivation test'

Submitted to  
Reshmi Teacher



Submitted by  
sethulekshmi.PP  
Physical science

## Nature of the study

The Rao Achievement motivation has been developed and provide a simple and objective measure of achievement motivation. The main aim was to provide the tool for the views to the classroom teachers

There are 20 incomplete sentence each of which followed by 2 possible alternatives A and B out of which one is achievement related item. Though both the alternatives are achievement oriented and socially accepted, yet one of them imply a higher se of the achievement and excellence.

The students has to indicate the alternative to generally prefer; the list may be administered to a group or an individual since it is suitable for use with both sexes. There is no time limit but the group test taken about 8 to 10 minute.

## Use of the test

Though the test is standardised and the nature of the test item can be used in any part of the country. Total score on the test provide a clue to the parents and the teachers for providing facilities and opportunities for providing higher achievement to the pupil. The test may be used by the counsellors for diagnosing purpose to find out why the creative and gifted children are not progressing. The test may be used as a tool for further research. The simplicity of the instrument make its uses in limited types of investigation.



APPENDIX V

# Rao Achievement Motivation Test

(For Grades 8 to 11)

By

**Dr. D. Gopal Rao, M. A., M. Ed., Ph. D.**

*Reader in Education,*

NCERT, NEW-DELHI

- 
- |                 |                              |
|-----------------|------------------------------|
| 1. Name... ..   | 5. Date of birth ... ..      |
| 2. School... .. | 6. Father's occupation... .. |
| 3. Class .. ..  | 7. Parent's income... ..     |
| 4. Date .. ..   | 8. Address .. ..             |

### DIRECTIONS

This is an attempt to understand you and help you to do well, whatever you want to do in life.

Below are given twenty incomplete sentences with two possible alternatives, A and B which complete the sense. Both the statements are correct. Put a tick mark against **ONLY ONE** of the alternatives which you prefer.

This has nothing to do with your examination. Feel free to answer all the questions frankly. There is no time limit, but work rapidly.

- |                                       |   |
|---------------------------------------|---|
| 1. I enjoy reading ..                 | (a) a comic book.<br>(b) a book of adventure.   |
| 2. As a student I like to be called   | (a) a well dressed student in my class.<br>(b) an intelligent student in my class.      |
| 3. When I grow up, I want ..          | (a) to do something which others have not done.<br>(b) to lead a comfortable life.      |
| 4. As a doctor, I want                | (a) to be a well know surgeon.<br>(b) to make a lot of money.                           |
| 5. During the holiday, I want         | (a) to visit my friends and relatives.<br>(b) to paint or write a story or a poem.      |
| 6. While answering in the examination | I aim .<br>(a) at finishing before time.<br>(b) at answering better than my classmates. |
| 7. I want to become rich .            | (a) by earning money by hard work.<br>(b) by winning a prize in the lottery.            |



8. I take pride .  
(a) in standing first in my class.  
(b) in helping poor students.
9. It is my nature...  
(a) to take life easily.  
(b) to undertake difficult tasks.
10. I have a tendency. .  
(a) to work on a task till it is completed.  
(b) to change the task if I get bored.
11. I want to study well...  
(a) to avoid blame from my parents.  
(b) to excel others in my class.
12. As an Engineer, I would like  
(a) to construct a model building in my town.  
(b) to grow rich and buy a car.
13. After 10 years, I will be..  
(a) earning a lot of money  
(b) a well known person in my job.
14. As a student, I would like...  
(a) to study for my future career.  
(b) to visit different places in the world.
15. I feel very unhappy .  
(a) when some one knocks away my purse.  
(b) when I fail to do my best in the examination.
16. I want to do something...  
(a) which will make me wealthy.  
(b) which others can hardly do.
17. Generally I make friends...  
(a) with those who are intelligent.  
(b) with those who are clean and neat
18. I feel <sup>upset</sup> ~~set~~  
(a) when I am blamed.  
(b) when I fail to succeed.
19. I feel my success depends...  
(a) upon my hard work.  
(b) upon my parents and relatives.
20. I want to practice hockey everyday....  
(a) so that I may be selected for the Olympic game.  
(b) so that I may keep my-self fit and healthy.

---

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Rashtra Bhasa Press, Raja Mandi, Agra-2

APPENDIX

SCORING KEY FOR RAO'S ACHIEVEMENT MOTIVATION  
TEST

| Item No. | GAR | HAR |
|----------|-----|-----|
| 1        | A   | B   |
| 2        | A   | B   |
| 3        | B   | A   |
| 4        | B   | A   |
| 5        | A   | B   |
| 6        | A   | B   |
| 7        | B   | A   |
| 8        | B   | A   |
| 9        | A   | B   |
| 10       | B   | A   |
| 11       | A   | B   |
| 12       | B   | A   |
| 13       | A   | B   |
| 14       | B   | A   |
| 15       | A   | B   |
| 16       | A   | B   |
| 17       | B   | A   |
| 18       | A   | B   |
| 19       | B   | A   |
| 20       | B   | A   |

GAR (General achievement related) responses  
get one score

HAR (High achievement related) responses  
get three score

score obtained

| Sl No | Name                   | score               |
|-------|------------------------|---------------------|
| 1     | Abhyith.S              | 40                  |
| 2     | Haniya K               | 38                  |
| 3     | K. kavya               | 32                  |
| 4     | Indraprasad K          | 42                  |
| 5     | Gouthamkrishna v.p     | 42                  |
| 6     | Krishnapriya M         | 50                  |
| 7     | Rithika N              | 40                  |
| 8     | Visal .C               | 32                  |
| 9     | Raniya C               | <del>32</del><br>46 |
| 10    | Rahul .M               | 36                  |
| 11    | Arun .K                | 50                  |
| 12    | susmita PJ             | 46                  |
| 13    | Thasleema C.A          | 44                  |
| 14    | Jisha M                | 32                  |
| 15    | Arunabhathy kuttappan. | 38                  |

|    |                  |      |
|----|------------------|------|
| 16 | Anja C.B         | 38   |
| 17 | Twinkle Joy      | 32   |
| 18 | Saranya A        | 46   |
| 19 | Sreevidhya K     | 42   |
| 20 | Munavar B        | 46   |
| 21 | Vishnu Gopal     | 42   |
| 22 | Shyama K         | 42   |
| 23 | Shruthi Z        | 36   |
| 24 | Akhil Anki       | 39   |
| 25 | Abhinav V        | 49   |
| 26 | Soraj Sundaran   | 46   |
| 27 | Sreya Anil       | 40   |
| 28 | Mohammed Anshiba | 36   |
| 2A | Nandhana T       | 32   |
| 30 | Amjatha Mubaraq  | 42   |
|    |                  | 1216 |



## Analysis and interpretation

|         |       |
|---------|-------|
| Low     | 20-32 |
| Average | 33-44 |
| High    | 45-60 |

$$\text{Achievement motivation} = \frac{\text{Total scores}}{\text{No. of students}}$$

From the above test conducted on 30 students for class IX, I found

$$\text{Total score} = 1216$$

$$\text{Achievement motivation} = \frac{1216}{30} = 40.53$$

Since the result of achievement motivation test is the achievement motivation of the class was average. Most of the students were in between so overall achievement motivation is average.

## Conclusion

Rao achievement motivation test can be used to assess the students achievement motivation. From Rao achievement test conducted in class ix I found that over all achievement motivation of the class is A Few students come under it helped in assessing students individuality.

*ap*

**B.S.S. B.Ed. TRAINING COLLEGE**  
**ALATHUR, PALAKKAD-DT, KERALA**



Name : ..... Sethulekshmi P.R .....  
Reg. No. : ..... BAATIPNO06 .....  
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*Certified that this is the bonafide record of*

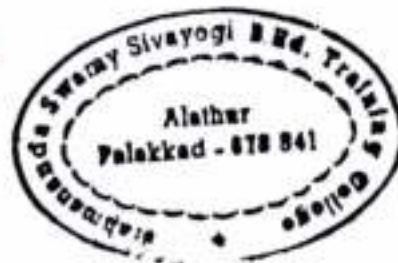
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**SEMESTER I**  
**TASKS & ASSIGNMENTS**



## **EDU 02 DEVELOPMENT OF THE LEARNER**

### **TASKS:**

1. Identifying problem behaviour in children of elementary/secondary classes and preparing a case study report.
2. Administer any one standardised psychological tool to primary/secondary school students to identify individual differences among learners.
3. Conducting survey regarding incidence of drug menace, sexual abuse, cybercrimes and other social problems among school children and making action plan for remediation.

## EDU 02 Development of the learner

### Task

Administer anyone standardized psychological tool to primary or secondary school students to identify the individual difference among learner

submitted to

Jimi M George Teacher



submitted by

Sethulekhmi P.R

Physical science

As a part of BED program we are advised to administer a standardised psychological tool among secondary school students and identify the individual differences for that Rosenberg self esteem scale was chosen and administered among the children in our class. The following report shows its discussion analysis and interpretation.

### Self-Esteem

In psychology the term self esteem is used to describe a persons overall sense of self-esteem or personal value. In other words how much you appreciate and like yourself.

\* self esteem is often seen as a personality trait which means that it tends to be stable and enduring.

\* self esteem can involve a variety of beliefs about your self. such as the appraisal of your own appearance, feelings, emotions and behaviours.

## About Rosenberg self esteem scale

The Rosenberg self esteem scale a widely used self report instrument for evaluating individual self esteem was investigated using item response theory. It was developed by sociologist Rosenberg and he was born New York city on May 18, 1922. He received his BA from Brooklyn college in 1946 and MA (1950), and Ph.D in 1953 from Columbia university.

The 10 item scale that measures global self esteem worth by measuring both positive and negative feelings about the self. The scale is believed to be unidimensional. All items are answered using a four point Likert scale format ranging from strongly agree to strongly disagree.

### Rosenberg self Esteem scale

#### scoring of the items

To score the items assign a value to each of the 10 items as follows.

x For items 1, 2, 4, 6, 7


strongly Agree -3



|                   |     |
|-------------------|-----|
| Agree             | - 2 |
| Disagree          | - 2 |
| strongly disagree | - 0 |

\* For items 3, 5, 8, 9, 10

|                   |     |
|-------------------|-----|
| strongly Agree    | - 0 |
| Agree             | - 1 |
| Disagree          | - 2 |
| strongly disagree | - 3 |



## Results

Total score 15-30 indicates high self-esteem  
 The score below 15 indicates low self-esteem

| Sl no | items  | S.A | A | DA | SD |
|-------|--|-----|---|----|----|
| 1     | I feel that I am a person of worth atleast on an equal plane with others |     |   |    |    |
| 2     | I feel that I have a number of good qualities.                           |     |   |    |    |
| 3     | All in all, I am inclined to feel that I am a failure                    |     |   |    |    |
| 4     | I am able to do things as well as most other people                      |     |   |    |    |
| 5     | <del>I feel that I do things as well as most other people</del>          |     |   |    |    |
| 5     | I feel that I do not have much to be proud of                            |     |   |    |    |
| 6     | I take a positive attitude towards myself.                               |     |   |    |    |

7 on the whole I am satisfied  
with my self

8 I wish I could have more  
respect for my self

9 I certainly feel useless at times

10 At times I think I am no  
good at all




## Scores obtained by students

| Sl no | Name         | score |
|-------|--------------|-------|
| 1     | Abhinav Venu | 19    |
| 2     | Arun D       | 21    |
| 3     | Jithendra D  | 23    |
| 4     | Akhil Babu   | 15    |
| 5     | Sheha mal    | 13    |
| 6     | Gopika M     | 14    |
| 7     | Thasleena C  | 19    |
| 8     | Vishnu Gopal | 24    |
| 9     | Varun G      | 18    |
| 10    | Enviya sheju | 17    |
| 11    | Maniya Binoy | 12    |
| 12    | Asha Davis   | 19    |
| 13    | Amrutha K    | 21    |
| 14    | Vysak Thomas | 24    |
| 15    | Greethika S  | 20    |



## Interpretation of results

After administering the Rosenberg self-esteem scale, it is found that among 15 students only 3 students have got score below 15 rest of them got above 15. This indicates most of the students have high self-esteem. Hence it is interpreted that the most of the students have high self-esteem only few are having low self-esteem.



## Conclusion

self esteem has a strong relation to happiness. Although the research has not clearly established causation one can be persuaded that high self esteem does lead to greater happiness. Low self esteem is more likely than high to lead to depression under some circumstance.

High self esteem does not prevent children from smoking, drinking, taking drugs, or engaging in sex if anything of high self esteem fosters experimentation which may increase drinking or early sexual activity, but in general effects of self esteem are negligible. Over all the benefits of high self esteem fall into two categories. enhanced initiative and pleasant feelings.



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**SEMESTER II**

**TASKS & ASSIGNMENTS**



## **EDU 07 FACILITATING LEARNING**

### **TASKS:**

1. Constructing sociograms based on an elementary classroom group and a secondary classroom group and comparing them.
2. Conducting a study on style prefers in learning in a group of 15-20 children using any tool on learning style.

# EDU 07 Facilitating Learning

## Task - 2

conducting a study on style preference in learning in a group of 15-20 children using any tool on learning style

submitted to  
Jini Teacher



Submitted by  
sethulekshmi.P.R  
Physical science

## Meaning

The terms 'learning styles' speak to the understanding that every student learns differently. Technically an individual's learning style refers to the preferential way in which the student absorbs, processes, comprehends and retains information.

## Types of learning style

### → visual / spatial

In visual style, it prefers using images, pictures, colours and maps to organise information and maps to communicate with others. You can easily visualise objects, pictures and outcomes in your mind's eye.

### → Aural / Auditory / Musical / Rhythmic

If you use the aural style, you like to work with sound and music. You have a good sense of pitch and rhythm. You typically can sing, play a musical instrument or identify the sounds of different instruments. Music invokes strong emotions.



→ Verbal / Linguistic

The verbal style involves both the written and spoken word. If chosen this style, it would be easy to express your self, both in written and verbally you love reading and writing. You like playing on the meaning or sound of words, such as tongue twister rhymes etc

→ Physical / Bodily / Kinesthetic

If physical style is more like you it is likely that you use your body and sense of touch to learn about the world around you. It is likely you like sports and exercise and other physical activities such as gardening or wood working.

→ Solitary / Intrapersonal

If you have a solitary style you prefer to be private introspective and independent. You can concentrate well focusing your thought and feelings on current topic. You are aware of your own thinking and you may analyse the different ways you think and feel.



## Questionnaire:

Name :

Class :

Roll No :

The modality (learning channel preference) questionnaire is given below. Complete the each statement by considering how it applies to you. Please respond to all questions.

1) . . . . . Never applies to me

2) . . . . . sometime applies to me

3) . . . . . often applies to me

### Section one:

1. — I enjoy doodling and even my notes have bits of pictures and arrow in them.
2. — I remember something better if I write it down
3. — I get lost or am late if someone tells me how to get to a new place and I don't write down the direction
4. — when trying to remember some one's telephone number, or something new like that, it helps me to get a picture of it in my mind.

5. — if I am taking a test, I can see the textbook page where the answer is located
6. — it helps me to look at the person while listening. it keeps me focussed.
7. — using flashcard help me to retain material for tests
8. — it's hard for me to understand what a person is saying a joke when someone tells me
9. — it's hard for me to understand what a person is saying when there are people talking or music playing.
10. — it is better for me to get work done in quiet place

Total : —

---

### Section Two :

1. — My written work doesn't look neat to me, my paper have crossed out words.
2. — it helps to use my finger as a pointer when reading to keep my place.
3. — papers with very small point, blotchy titles or poor copies are tough on me
4. — I understand how to do something if some one tells me, rather than having to read the same thing to my self.

5. — I remembered things that I hear, rather things that I see or read
6. — Writing is tiring. I press down too hard with my pen or pencil.
7. — My eyes get tired fast. even though the eye doctor says that my eyes are ok
8. — when I read, I mix up words that look alike such as "them and then", "bad" and "dad"
9. — it's hard for me to read other people hand writing.
10. — if I had the choice to new information through a lecture or text book, I would choose to hear it rather than read it


### Section three

1. — I don't like to read directions, I had rather just start doing
2. — I learn best when someone shows me to do something and I have the opportunity to do it
3. — studying at a desk is not for me
4. — I tend to solve problems through a more trial and error approach. rather than from step by step method.
5. — Before I follow directions if help me to see someone else do it first



6. \_\_\_\_\_ I find my self needing frequent break while studying.
7. \_\_\_\_\_ I am not skilled in giving verbal explanations or directions
8. \_\_\_\_\_ I do not become easily lost, even in strange surroundings.
9. \_\_\_\_\_ I think better when I have the freedom to move around.
10. \_\_\_\_\_ when I can't think of a specific word. I will use my hands a lot and call something a "what - cha - ma - call - it" or a "thing - a - ma - jg".

Total : \_\_\_\_\_





## Scoring

Now add up the scores, for each of the three sections and record below. The maximum score any section is 30 and the minimum is 10. Note the preference next to each section.

Section one score :

Section two score :

Section three score :

visual  
auditory  
kinesthetic



Table showing the scores obtained by students

| Sl no      | Name of the student | visual                                 | Auditory                               | kinesthetic                           | style of preference |
|------------|---------------------|--|--|---------------------------------------|---------------------|
| 1          | Abhijith S          | 21                                     | 21                                     | 23                                    | kinesthetic         |
| 2          | Abhiram P           | 21                                     | 20                                     | 19                                    | visual              |
| 3          | Abhiram K.R         | 22                                     | 21                                     | 21                                    | visual              |
| 4          | Adharsh P.M         | 22                                     | 20                                     | 23                                    | kinesthetic         |
| 5          | Ajisha I K          | 17                                     | 19                                     | 21                                    | kinesthetic         |
| 6          | Aleena K.S          | 23                                     | 14                                     | 21                                    | visual              |
| 7          | Anaswara P          | 23                                     | 24                                     | 18                                    | Auditory            |
| 8          | Arun M              | 21                                     | 19                                     | 23                                    | kinesthetic         |
| 9          | HANJA K             | 24                                     | 16                                     | 22                                    | visual              |
| 10         | Kavya K             | 21                                     | 24                                     | 23                                    | Auditory            |
| 11         | Midhun M.P          | 18                                     | 22                                     | 24                                    | kinesthetic         |
| 12         | Nandhana T          | 15                                     | 23                                     | 20                                    | Auditory            |
| 13         | Rahul M             | 21                                     | 16                                     | 24                                    | kinesthetic         |
| 14         | Rubin Raj C         | 21                                     | 19                                     | 22                                    | kinesthetic         |
| 15         | Sneha Raj           | 24                                     | 19                                     | 21                                    | visual.             |
| Total      |                     | 314                                    | 297                                    | 325                                   |                     |
| percentage |                     | $\frac{314}{450} \times 100$<br>69.77% | $\frac{297}{450} \times 100$<br>66.00% | $\frac{325}{450} \times 100$<br>72.2% |                     |

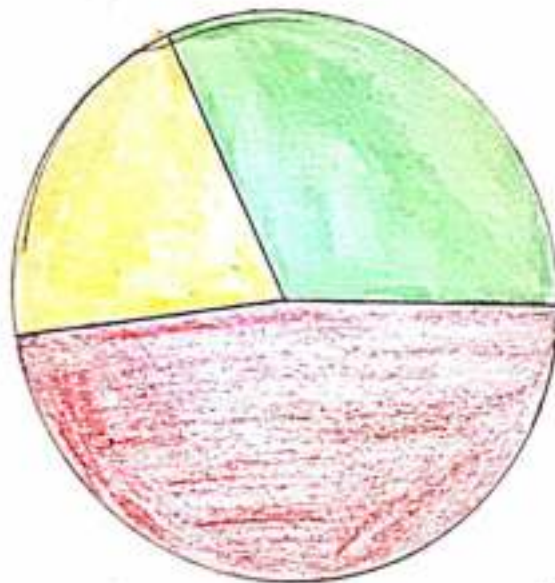
Table showing learning style preference

| Learning style preference | Total number of students | preference % |
|---------------------------|--------------------------|--------------|
| visual                    | 5                        | 33           |
| Auditory                  | 3                        | 20           |
| kinesthetic               | 7                        | 47           |
| Total                     | 15                       | 100          |



## Pie diagram

| Learning style preference | calculations          | Degree |
|---------------------------|-----------------------|--------|
| visual                    | $(33/100) \times 360$ | 118.8  |
| Auditory                  | $(20/100) \times 360$ | 72     |
| Kinesthetic               | $(47/100) \times 360$ | 169.2  |
|                           |                       | 360    |



-  visual
-  Auditory
-  kinesthetic



## Conclusion

The significance of learning style is to effectively learn how an individual understands new information so that they can determine the most effective way to collect, interpret and present information. There are different types of learners in a single classroom. If teachers know what the learner's predominant learning style are, they could incorporate multiple teaching methods.

