



# UNIVERSAL EDUCATION CENTRE

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SUMMATIVE ASSESSMENT –II

SCIENCE (Theory)

Class – IX

Time allowed: 3 hours

Maximum Marks: 90

## General Instructions:

- All questions are compulsory.
- The question paper comprises of two sections, A and B. You are to attempt both the sections.
- Questions 1 to 3 in section A are one mark questions. These are to be answered in one word or in one sentence.
- Questions 4 to 6 in section A are two marks questions. These are to be answered in about 30 words each.
- Questions 7 to 18 in section A are three marks questions. These are to be answered in about 50 words each.
- Questions 19 to 24 in section A are five marks questions. These are to be answered in about 70 words each.
- Questions 25 to 36 in section B are multiple choice questions based on practical skills. Each question is a one mark question. You are to select one most appropriate response out of the four provided to you

## Section A

- What is meant by valency of an element?
- Why is euglena called plant animal?
- Relate watt to joule.
- Give the names of elements present in:-
  - Potassium sulphate
  - Hydrogen bromide
  - Quick lime
  - Baking powder
- Name the group of plants that belongs to the division of Thallophyta.
- Explain how energy is conserved in a simple pendulum.
- Define the term mole.
  - What are polyatomic ions?
- A. Write formulae of:-
  - Magnesium hydroxide
  - Potassium chloride
  - Sodium carbonateB. Define atomic mass unit.
- What are major divisions of plantae? What is the basis of these divisions?
- What are vectors? Name the vectors of malaria?
- What are antibiotics? How do they work? How penicillin is effective to control bacterial disease?
- Vibha has visited an island as holiday tour with her family. She narrated all her journey to her friends. She told that she saw amazing world inside ocean which had various organisms and plants. She saw some organisms which had tentacles and are orange and purple in colour. By all this, she assumed that the organisms are rare species of plants. So, she wanted to collect them. But their governmental organization has banned this from doing so.**
  - Suggest some measures to save these organisms from being extinct.
  - What value was shown by governmental organization?

### 3. Do you agree with vibha's identification of the organisms.

13. Describe a simple activity to prove that objects of density less than that of the liquid float on it.
14. A. An object of mass 10 kg is dropped from a height of 15m. Find its kinetic energy when it is half way down.  
B. When is the work done by a body said to be negative?
15. What is reverberation? Suggest two methods to reduce it in big halls.
16. The potential energy of a freely falling object decreases progressively. Does this violate the law of conservation of energy? Explain.
17. Calculate the amount of work needed to stop a car of 100 kg, moving at a speed of 15km/hr?
18. A sound wave has frequency of 4 KHz and wavelength of 50 cm. It takes 5s to travel.  
Calculate the distance it travels.
19. Define following parts:-  
a. Molecular mass    b. Relative formula mass    c. Isobars    d. Cation    e. Anion
20. Write the causes, symptoms and the methods of prevention and control of diarrhoea.
21. a. A 200 cm<sup>3</sup> block has a mass of 495 g. Find its relative density. (Density of water = 1g/cm<sup>3</sup>)  
b. Big trucks and tractors have broad tyres. Why?
22. Differentiate between Density and Relative density.
23. OTBA
24. OTBA

### Section B

25. Explain the reaction between copper sulphate and sodium sulphide.
26. Write some identifying features of Fern.
27. Distance between two successive compressions in a wave is 2cm. If velocity of wave is 250m/s, find its frequency.
28. What is the colour of sodium sulphate solution?
29. What is the physical state of sodium sulphate in reaction?  
a. solid    b. gaseous    c. aqueous solution    d. none of the above
30. Flower bearing plants are known as  
a. angiosperms    b. gymnosperms    c. bryophytes    d. algae
31. what is dominant phase in mosses?  
a. gametophyte    b. pteridophyte    c. bryophyte    d. sporophyte
33. First vascular plants on land are:-  
a. algae    b. pteridophytes    c. gymnosperms    d. bryophytes
34. If angle between incident sound wave and reflected sound wave is 125<sup>o</sup>, then angle of reflection is  
a. 125<sup>o</sup>    b. 150<sup>o</sup>    c. 40<sup>o</sup>    d. 90<sup>o</sup>
35. Types of surface needed for reflection of sound waves are :-  
a. smooth surface only    b. polished and smooth surface  
c. polished and rough surface    d. rough and hard surface only
36. Pressure exerted by a thrust of 1N on a surface of area 1 cm<sup>3</sup> will be equal to:-  
a. 1 Pa    b. 100 Pa    c. 10<sup>4</sup> Pa    d. 10<sup>6</sup> Pa