

VNR8S

Virudhunagar District
Common Half Yearly Examination - December 2024

Standard 8 SCIENCE

Time: 2.30 Hrs.

Marks: 100

I. Choose the best answer:**12×1=12**

- 1) Which of the following liquids has more viscosity?
a) Grease b) Water c) Coconut oil d) Ghee
- 2) The spherical mirror used as a rear view mirror in the vehicle is _____.
a) Concave mirror b) Convex mirror
c) Plane mirror d) None of the above
- 3) The process of converting a liquid into a solid is called _____.
a) sublimation b) condensation c) freezing d) deposition
- 4) Which of the following may be caused by noise?
a) Irritation b) Stress c) Nervousness d) All the above
- 5) Symbol of mercury is _____.
a) Ag b) Hg c) Au d) Pb
- 6) Aerated water contains _____.
a) air b) oxygen c) carbon dioxide d) nitrogen
- 7) Cathode rays are made up of _____.
a) neutral particles b) positively charged particles
c) negatively charged particles d) None of the above
- 8) Permanent hardness of water is due to the presence of _____.
a) Sulphate and Chlorides b) Dust particles
c) Carbonates and bicarbonates d) Other soluble particles
- 9) _____ shows both living and non living characteristics.
a) Protozoa b) Virus c) Bacteria d) Fungi
- 10) One of the following is an edible mushroom.
a) Polyporus b) Agaricus c) Penicillium d) Aspergillus
- 11) Cockroach moves with the help of its _____.
a) leg b) bone c) muscular foot d) whole body
- 12) _____ are the chemical substance, secreted by endocrine glands.
a) Hormones b) Enzymes c) Proteins d) Fatty acids

II. Fill in the blanks:**5×1=5**

- 13) The solid angle is measured in _____.
- 14) _____ is a device that protects building from lightning strike.
- 15) _____ is the basic material to manufacture urea.
- 16) Wasp sting contains _____.
- 17) The largest cell is egg of an _____.

III. State True or False. If false, correct the statement:**5×1=5**

- 18) A body will sink if the weight of the body is greater than the buoyant force.
- 19) In parallel circuit, current remains the same in all components.
- 20) A chemical reaction is a temporary reaction.
- 21) Yeast is used in the large scale production of alcohol.
- 22) Cardiac muscle is a voluntary muscle.

IV. Match the following:**5×1=5**

- | | |
|--------------------------|--------------------|
| 23) A) Universal solvent | - Water pollutant |
| B) Hard water | - Kills germ |
| C) Boiling | - Ozonisation |
| D) Sterillization | - Water |
| E) Sewage | - Stomach ailments |

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10×2=20

V. Answer any 10 questions:

- 24) Define - Ampere.
- 25) Name two instruments which help to measure the pressure of a fluid.
- 26) State Snell's law of refraction.
- 27) What are the applications of conduction in our daily life?
- 28) A sound wave travels 2000m in 8s. What is the velocity of the sound?
- 29) Mention any three compounds that exist in liquid state,
- 30) What is pollution?
- 31) Why does the fish die when it is taken out of water?
- 32) Write the properties of anode rays.
- 33) What is a neutralization reaction?
- 34) What are antibiotics?
- 35) Write any two economic importance of fungi.
- 36) Mention the function of "Alveoli".
- 37) What is cranium?
- 38) List out the changes which occur during puberty.

8×4=32

VI. Answer any 8 questions:

- 39) Mention any three ways of minimising friction.
- 40) Give any two applications of a concave and convex mirror.
- 41) Explain the working of thermos flask.
- 42) What steps should be taken to reduce the effect of noise pollution?
- 43) Give reasons for the following:
 - A) Sodium and Potassium are stored in Kerosene.
 - B) Mercury is used in thermometers.
- 44) Balance the following chemical equation.
 - a) $\text{Na} + \text{O}_2 \rightarrow \text{Na}_2\text{O}$
 - b) $\text{Ca} + \text{N}_2 \rightarrow \text{Ca}_3\text{N}_2$
 - c) $\text{N}_2 + \text{H}_2 \rightarrow \text{NH}_3$
 - d) $\text{CaCO}_3 + \text{HCl} \rightarrow \text{CaCl}_2 + \text{CO}_2 + \text{H}_2\text{O}$
- 45) What are the methods of removing hardness of water?
- 46) What are the uses of acids?
- 47) How microorganisms are useful in the field of medicine?
- 48) Write the differences between gymnosperm and angiosperm.
- 49) Draw the structure of human eye and label its parts.
- 50) Explain the nutritional needs of adolescence in brief.

3×7=21

VII. Answer in detail:

- 51) A) Write a short note on different types of clocks.

(OR)

- B) Explain three ways of charge transfer.

- 52) A) Explain the environmental effects of chemical reactions.

(OR)

- B) What are the effects of acid rain? How can we prevent them?

- 53) A) i) Why microorganisms are essential for agriculture?
ii) Write the names of any three protozoans.

(OR)

- B) i) Tabulate the differences between aerobic and anaerobic respiration.
ii) State different types of tissues.