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COMMON HALF YEARLY EXAMINATION - 2025

Std - VIII

Time : 2.30 Hrs

Science
part - I

Marks: 100

I. Answer the following:

20 x 1 = 20

1. Closeness of two or more measured values is called as
a) accuracy b) precision c) error d) approximation
2. Which of the following liquids has more viscosity?
a) Grease b) water c) coconut oil d) ghee
3. Water strider insect slides on the water surface easily due to of water.
a) density b) surface tension c) viscosity d) friction
4. 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
5. Conduction is the way of heat transfer which takes place in a
a) solid b) liquid c) gas d) all of them
6. The Gold-leaf electroscope was developed by
a) William Gilbert b) Abraham Bennet c) Benjamin Franklin
d) James Prescott Joule
7. The range of audible frequency for the human ear is
a) 2Hz to 2000 Hz b) 20 Hz to 2000 Hz c) 20 Hz to 20000 Hz
d) 200 Hz to 20000 Hz
8. Symbol of mercury is
a) Ag b) Hg c) Au d) Pb
9. In Haber's process of producing ammonia is used as catalyst.
a) nitrogen b) hydrogen c) iron d) nickel
10. Photo synthesis is a chemical reaction that takes place in the presence of
a) heat b) light c) electricity d) catalyst
11. Which of the following is known as azote?
a) Oxygen b) Nitrogen c) Sulphur d) Carbon-dioxide
12. Cathode rays are made up of
a) neutral particles b) positively charged particles
c) negatively charged particles d) none of the above
13. Which among the following is the characterisation of potable water?
a) colourless b) transparent c) free from impurities d) all the above
14. The aqueous solutions of conduct electricity.
a) acid b) base c) salt d) all of these
15. is a prokaryotic microorganisms.
a) Virus b) Algae c) Fungi d) Bacteria
16. Plants that prevent soil erosion are
a) algae b) fungi c) bryophytes d) pteridophytes
17. cells are specialised cells that can be transformed into any kind of cells.
a) Nerve b) Stem c) Heart d) Bone
18. The coloured portion of the eye is
a) Sclera b) Cornea c) Iris d) Pupil

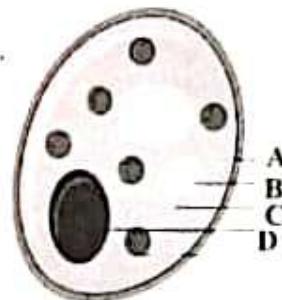
19. joints are immovable?
 a) Shoulder and arm b) Knee and joint c) Upper jaw and skull
 d) Lower jaw and upper jaw
20. Adolescence is the period of life between years of age.
 a) 10 to 16 b) 11 to 17 c) 13 to 19 d) 11 to 20

Part - II

II. Answer any 12 questions. Q.No. 35 is compulsory.

12 x 2 = 24

21. What is measurement?
 22. Why are heavy bags provided with broad straps?
 23. Define specific heat capacity.
 24. How charges are produced by friction?
 25. Fill in the blanks:
 a) Pitch of a sound depends on the vibration.
 b) Sound travels in the form of
 26. Why are bells made of metals?
 27. What happens when an iron nail is placed in copper sulphate solution?
 28. State the law of constant proportion.
 29. State true or false. If false, correct the statement.
 a) Soap lathers well in hard water.
 b) Sea water is suitable for irrigation as it contains dissolved salts.
 30. What is a neutralization reaction?
 31. Redraw the given diagram and label the parts.



32. Match the following:
- | | |
|---------------|--------------------|
| Cyanophyceae | - Green algae |
| Chlorophyceae | - Blue green algae |
| Phaeophyceae | - Red algae |
| Rhodophyceae | - Brown algae |
33. Differentiate : Movement and Locomotion.
 34. What do you mean by secondary sex characteristics?
 35. If two plane mirrors are inclined to each other at an angle of 45° , find the number of images formed.

Part - III

III. Answer any 7 questions. Question no. 45 is compulsory.

7 x 4 = 28

36. List out the base quantities with their units.
 37. a) State the laws of reflection.
 b) State Snell's law of refraction.
 38. a) Consider the statement given below and choose the correct option.
 Assertion : Radiation is a form of heat transfer which takes place only in vacuum.
 Reason : The thermal energy is transferred from one part of a substance to another part without the actual movement of the atoms or molecules.
 i) Both assertion and reason are true and reason is the correct explanation of assertion
 ii) Both assertion and reason are true, but reason is not the correct explanation of assertion.
 iii) Assertion is true, but the reason is false.
 iv) Assertion is false, but the reason is true.
 b) Name three types of heat transfer.

39. Tabulate the differences between metals and non-metals.
40. a) What is dry ice?
b) What are its uses?
41. Give reasons for the following.
a) Water is a universal solvent.
b) Aquatic animals can breathe in water.
42. How microorganisms are useful in the field of medicine?
43. Differentiate between inhalation and exhalation.
44. What are the functions of skeleton in human body?
45. a) A stone weighs 500N. Calculate the pressure exerted by it, if it makes contact with a surface of area 25cm^2 (2)
b) A wave with a frequency of 500Hz is travelling at a speed of 200ms^{-1} . what is the wavelength? (2)

Part - IV

IV. Answer all the questions:

4 x 7 = 28

46. a) i) What are the differences between plane angle and solid angle? (3)
ii) State Pascal's law and mention its application. (4) (OR)
b) Explain the working of thermos flask. (7)
47. a) i) What is electroplating? (2)
ii) Give some uses of electroplating? (2)
iii) What are the properties of sound? (3) (OR)
b) i) Mention any four compounds and their uses. (4)
ii) Mention the various conditions required for a chemical reaction to occur. (2)
iii) On heating, calcium carbonate gives calcium oxide and carbondioxide. Is it an exothermic reaction or an endothermic reaction? (1)
48. a) i) Balance the following chemical equation. (4)
a) $\text{Na} + \text{O}_2 \rightarrow \text{Na}_2\text{O}$
b) $\text{N}_2 + \text{H}_2 \rightarrow \text{NH}_3$
c) $\text{CaCO}_3 + \text{HCl} \rightarrow \text{CaCl}_2 + \text{CO}_2 + \text{H}_2\text{O}$
d) $\text{C} + \text{O}_2 \rightarrow \text{CO}_2$
ii) Write the names of the following compounds (3)
a) CO b) PCl_5 c) H_2O (OR)
b) i) Define - Acid (2)
ii) What are the uses of acid? (4)
iii) Acid is derived from the Latin word. (1)
49. a) Draw the outline of Bentham and Hooker's system of classification. (7) (OR)
b) i) Match the following (2)

Puberty	- Testosterone
Adam's Apple	- Muscle development
Androgen	- at 45 to 50 years of age
ICSH	- Sexual maturity
Menopause	- Change in voice

 ii) What are the physical change that occur in boys and girls during adolescence? (5)