

X - Std

## SCIENCE

Time : 2.30 Hrs

Marks : 75


15 x 1 = 15

I Choose the correct answers.

- Primitive man evolved in ..... a) Africa b) America c) Australia d) India
- One of the following is transmitted through air find out. a) Tuberculosis b) Meningitis c) Typhoid d) Cholera
- In spirogyra algae reproduction takes place by a) Fragmentation b) Binary fission c) Budding
- Complete oxidation of a glucose molecule in aerobic respiration produces ..... ATP molecules  
a) 18 b) 28 c) 38 d) 48
- Example for fossil fuel is ..... a) Copper b) iron c) Magnesium d) Coal
- The mixture of gases used by deep sea divers is ..... a) Helium-oxygen b) Oxygen-nitrogen
- Vinegar is present in Acetic acid curd contains ..... acid a) Lactic acid b) tartaric acid
- The amalgam used for dental filling is ..... a) Ag-sn amalgam b) cu-sn amalgam
- An alloy used for making scientific instrument ..... a) Magnalium b) Duralumin b) Bronze
- IUPAC name of acetic acid is ..... a) Ethanoic acid b) Methanoic acid c) Propanoic acid
- The freezing of biotechnology products like vaccines require ..... freezing system.  
a) Helium b) Nitrogen d) Ammonia d) Chlorine
- Kilowatt-hour is the unit of ..... a) Potential difference b) electric-power c) electric energy d) charge
- ..... surface absorbs more heat than any other surface under identical conditions.  
a) White b) Rough c) Black d) Yellow
- The SI unit of power of a lens is ..... a) Dioptre b) Joule c) Roentgen
- The magnification produced by a mirror is  $1/3$  then the type of mirror is .....  
a) concave b) convex c) plane

II Answer any (20) questions.

20 X 2 = 40

- Sexually reproducing organisms produce offsprings with marked, significant and visible variation. A sexually reproducing offsprings show mirror variations.
- A list of disorders are given below. Pick out the odd one out and give reasons. (Colour blindness, Albinism, Haemophilia, Night blindness, Albinism, Sickle cell anaemia)
- 

Copy the diagram and label the parts given below.  
A-seat of smell B-seat of vision
- The important event of meiosis is the crossing over. It occurs during.  
a) Leptotene b) Pachytene c) Diplotene d) Zygotene
- The various endocrine glands found in different regions in man. Match the following.  
i) Head - Thymus gland  
ii) Neck - Adrenal gland  
iii) Thorax - Thyroid gland  
iv) Abdoman - Pituitary gland
- The methods of reproduction and the organisms are given below. Match the type of reproduction the suitable organisms.

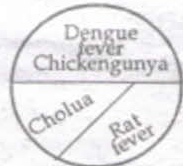
Fission	Spirogyra	Yeast
Budding	Protozoans	flatworms
Fragmentation	Bryophyllum	Bacteria

- The tusks of elephants are modified .....
- Based on relationship : fillup  
Whale : Baleen plates; Bat .....
- Normal Body temperature of man is ..... i) a)  $98.4-98.6^{\circ}\text{F}$  b)  $96.6-96.8^{\circ}\text{F}$  c)  $94.4-98.6^{\circ}\text{F}$  d)  $98.4-99.6^{\circ}\text{F}$   
ii) ..... quills of porcupine
- Name the types of vascular tissues in the plant stem which are labelled as A and B.



- Name A & B.
- What are the materials transported through 'A'.
- What are the materials transported through 'B'.

- Study the food chain below. Correct it and convert into a pyramid of energy mulberry ----> sparrow ----> caterpillar ----> kite.
- Odd one out.  
i. a) Bio-alcohol b) Green diesel c) Bio-ethers d) Petroleum  
ii. a) Cholera-typhoid b) scabies c) dysentery



28. The pie - diagram represents a survey result of infectious diseases of a village during 2008-2009. Which diseases affect the majority of population?  
 a) Which diseases affect the majority of the population?  
 b) How are these diseases transmitted?  
 c) Write any three measures to control the other two diseases.
29. Which is a non - renewable resource? (coal, petroleum, natural gas, all the above, hydrogen, solar energy)
30. You have prepared a saturated solution of sugar. Is it possible to dissolve some more grams of sugar to thin solution? Justify your stand.
31. Find the concentration of solution in terms of weight percent is 20 gram of common salt is dissolved 50 gram of water.
32. The hydrogen ion concentration of a solution 001. What is the pH of the solution. Calculate the pH value.
33. List out any two differences between atoms and molecules.
34. Why does the colour of the copper sulphate change when an iron nail is kept in it? Justify your answer.
35. A process employed for the concentration of sulphide ore is .....  
 a) froth floatation / gravity separation
36. **Assertion :** In thermite welding aluminium powder and  $Fe_2O_3$  are used.  
**Reason :** Aluminium powder is a strong reducing agent? Does the reason satisfy the assertion.
37. Write down the possible isomers and give their IUPAC names using the formula  $C_4H_{10}$ .
38. Correct the mistakes if any in the following statements.  
 a) one newton is the force that produces an acceleration of  $1mS^{-2}$  in an object of 1 gram mass.  
 b) action and reaction is always acting on the same body.
39. a) Loquid hydrogen is for rocketed, then ..... for MRI ..... b) What do you mean by cryogenic fuels?
40. Fill in the blanks.  
 a) potential difference : Volt meter then current .....  
 b) power plant : conventional source of energy then solar energy .....
41. Fuse wire is made up of an alloy of ..... which has high resistance and .....
42. Draw the Schematic diagram of an electric circuit consisting of a battery of two cells of 1.5 V each. Three resistance of 5 ohm, 10 ohm, and 15 ohm respectively and a plug key all connected in series.
43. Correct the mistakes if any in the following statements.  
 a) Magnetic field is a quantity that had magnitude only.  
 b) The magnetic field lines emerge from the south pole and merge at the north pole.
44. Fill in the blanks.  
 a) For a motor; a permanent magnet, then commercial motor .....  
 b) Focal length of a lens ; metre then for power of a lens .....
45. a) ..... is the only telescope ever designed to be serviced in space by astronauts.  
 b) The astronomers used the telescope to obove distance of .....
- III Write any four questions. Minimum any one of the each section. 4 X 5 = 20

### SECTION - I

46. Human evolution has a record of changes for the past of 15 million years.  
 a) Name the different species of mankind in chronological order from primitive to modern man.  
 b) When were the primitive caves developed?  
 c) Narrate the life led by early man like hominids.
47. There is a wide spread outbreak of malaria in your area.  
 a) Suggest some controlling measures to the local authority concerned.
48. Represent the classification of fruits in a diagrammatic sketch.
49. In your area there is scarcity of water due to this the people are affected. So what are the measure to be taken by you to meet out the scarcity of water.

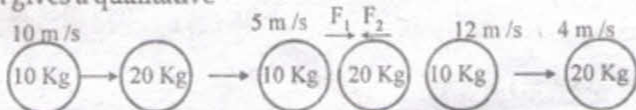
### SECTION - II

50. Write the applications of Avagadro's law.
51. Fill in the blanks using suitable formula in the given table.
- | No. | Alkane             | Alkene           | Alkyne          |
|-----|--------------------|------------------|-----------------|
| 1.  | $C_2H_6$ ethane    | ..... ethene     | $C_2H_2$ ethyne |
| 2.  | ..... propane      | $C_3H_6$ propene | ..... propyne   |
| 3.  | $C_4H_{10}$ Butane | ..... Butene     | ..... Butyne    |

ii) What is Esterification? Write with example.

### SECTION - III

52. Newton's first law of motion gives a qualitative  
 a) definition of force justify.



- b) Mention some achievement of Chandrayan - any 5.  
 53. Label the following in the given diagram given below

- a) Refracted ray  
 b) Refracted ray  
 c) Emergent ray  
 d) Angle of Refraction  
 e) Angle of deviation  
 f) Angle of emergence

