

**KANCHI KALVI'S CENTUM COACHING TEAM**  
**SPECIAL QUESTION PAPER -1**

**Class: XSTD      Subject: SCIENCE      Marks: 75      Time: 2:30hrs.**

**SECTION – A      (15 x 1 = 15) Answer all the questions.**

**I.Choose and write the correct answer**

1. The Genotypic ratio observed in Mendel's Monohybrid Cross is  
(1:2, 1:2:1, 1:3:1, 1:3)
2. A person maintains good interpersonal relationship with family and will never quarrel with others called \_\_\_\_\_ Dimension  
( social, mental ,physical, psycho)
3. The \_\_\_\_\_ system provides chemical integration through hormones .  
(exocrine,nervous,endocrine,skeletal)
4. Conversion of milk into curd by \_\_\_\_\_  
(Mycobacterium, Lactobacilli, Eobacterium,all)
5. A thin transparent membrane called \_\_\_\_\_ covers the kidney  
(muscular tube, urethra, renal hilus, capsule)
6.  $6\text{CO}_2 + 12\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + ? + 6\text{H}_2\text{O}$   
( $5\text{CO}_2$ ,  $6\text{CO}_2$ ,  $6\text{O}_2$ ,  $7\text{O}_2$ )
7. \_\_\_\_\_ rainfall affect the ground water level  
(high,,moderate,scanty,none)
8. \_\_\_\_\_ energy conservation is the important element of energy policy.  
(mechanical,wind,electrical,wave)
9. Solubility of CuSO<sub>4</sub> in H<sub>2</sub>O is \_\_\_\_\_ at 20oC.  
(12.7g, 98.5g, 26.7g, 20.7g)
- 10.An example for silent volcano is \_\_\_\_\_  
(washing soda, ammonium chromate, baking soda, ammonium di chromate)
11. Position of \_\_\_\_\_ is not fixed till now in the periodic table.  
(oxygen, nitrogen, carbon, hydrogen)
12. A creator of revolution in ORGANIC CHEMISTRY is \_\_\_\_\_  
(Berzelius, Mendeleev, Wohler, Cavendish)
13. India's first unmanned lunar probe launched by ISRO is \_\_\_\_\_  
(Almaz , Sky lab ,Mir , Chandrayaan-1)

14. During the flow of high current, the \_\_\_\_\_ wire melts and protects the circuits.  
(live, neutral, earth, fuse)

15. Large \_\_\_\_\_ mirrors are used to focus sunlight to produce heat in solar furnaces.  
(convex, spherical, concave, plane)

**SECTION – B** (20 x 2 = 40)

**II. Answer any twenty questions.**

16. Define Steroids .
17. Define Gene therapy .
18. In which sources the somatic stem cells are derived?
19. What kind of Immunity does a child get when it is breast fed ?
20. What are called Nodes of Ranvier?
21. Name the main whorls of a complete flower
22. List out two fundamental characteristics that mammals are distinguished from other vertebrates.
23. Man is an intellectual social animal – why?
24. What is the role of semi-lunar valve in our heart ?
25. Differences between autotrophic and heterotrophic nutrition.
26. The digestive system is composed of two groups of organs, name them.
27. What are different ways of excretion in plants?
28. Define an eco-system and its two types .
29. Write any two benefits of household waste water recycling systems .
30. What is Energy Management?
31. Mention some uses of Natural gas .
32. Based on the amount of solute in the given amount of solvent, solutions are classified into how many types? Mention them
33. Take 30g of common salt and dissolve it in 60g of water. Find the concentration of solution in terms of weight percent.
34. Calculate the mass of  $18.069 \times 10^{23}$  molecules of  $\text{SO}_2$
35. The hydrogen ion concentration of a solution is  $1.0 \times 10^{-9}$  M. What is the pH of the solution? Find whether the solution is acidic, basic or neutral
36. Write about pH of Soil
37. Define atomic number (Z)
38. What do you mean by Sacrificial protection ?
39. Explain the Structure of Methane
40. When a gun is fired, it exerts a forward force on the bullet – why?
41. What is the conclusion given by Galileo about study of motion?
42. What is known as heating effect of electric current?
43. What is called short circuiting?
44. What are the principal advantages associated with solar cells?

45. what is called the centre of curvature of the spherical mirror(C)?  
 46. Define principal focus of the convex mirror(F).  
 47. Define angle of deviation(d).

**SECTION – C** (4 x 5 = 20)

- (i) Answer any four questions by choosing one question from each part.**  
**(ii) Each question carries five marks.**  
**(iii) Draw diagram wherever necessary.**

**PART – I**

48. Define the terms (a) Induced clones(2) (b) Germ line gene therapy(2)  
 (c) \_\_\_ is used to cure pernicious anaemia.(1).  
 49. Define the following terms (a) Neurilemma(2) (b) corpus callosum (2)  
 (c) \_\_\_ is the seat of consciousness, intelligence, memory and reasoning(1).

**PART – II**

50. Tabulate the spores in different algae and fungi  
 51. Explain the methods adopted for the disposal of harmful waste Materials

**PART – III**

52. (a) Calculate the number of moles in 90g of water(2)  
 (b) state Gay-Lussac's Law of Combining Volumes of Gases(2)  
 (c) \_\_\_ is a pure ratio and has no unit. (1)  
 53. Describe the Manufacture of Ethanol from Molasses

**PART – IV**

54. (a) Derive Equation for 'g' at the surface of the earth(3)  
 (b) what is called the turning effect of a force?(2)  
 55. Explain the structure of HUMAN EYE with a neat diagram

**- PREPARED FOR THE BETTERMENT OF ALL CHILDREN**

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