

**KANCHI KALVI CENTUM COACHING TEAM**  
**SPECIAL QUESTION PAPER - 2**

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

**SECTION – A (15 x 1 = 15)**

Answer all the questions.

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

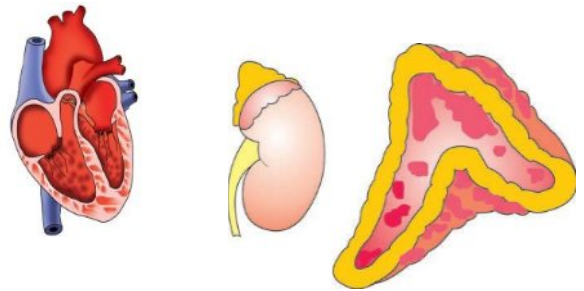
1. Mendel focussed on the garden pea plants as Pod colour  
(Green/purple, Yellow/blue, Green/red , Green / Yellow)
2. In \_\_\_\_\_ Ronald Ross was awarded the Nobel Prize for his work on malaria  
( 1920 , 1802, 1902 , 1922 )
3. Steady state in body functioning called \_\_\_\_\_  
(Homeostasis, Homeopolia, Homeostroya, Homeopathic)
4. A Male sheep is also called as \_\_\_\_\_  
( rem, rame, reme ram).
5. In \_\_\_\_\_ the limbs are modified into flippers  
(Horse, Donkey, monkeys , whales)
6. The pollen tubes grow towards the ovule.is \_\_\_\_\_  
(chemotropism,hydrotropism,geotropism,phototropism)
7. spoonbills is found in \_\_\_\_\_ National Park / Sanctuary.  
(Bandhipur, Bharathpur, Manas, Sunderbans)
8. \_\_\_\_\_water is also commonly used in aquaculture  
(Waste , Pure, Distiled , all )
9. 20g of NaCl in 100g water is an example for \_\_\_\_\_ solution.  
(Saturated, Super saturated, Unsaturated, none)
10. Metabolism is carried out by means of \_\_\_\_\_.  
( Nitric, sulphuric, formic, hydrochloric)
11. The elements present in 4 - 12 Groups differ in atomic number by  
(8,8,18,18,32.) (8,18,18,32.) (2,6,10,14) (18,32,32).
12. *KOHINOOR DIAMOND* is a 105 carat diamond weighs\_\_\_\_  
( 12.38g, 21.68g, 21.86g, 21.46g)
13. The value of G is \_\_\_\_\_ N m<sup>2</sup> kg<sup>-2</sup>  
(6.38 × 10<sup>6</sup>, 6.667 × 10<sup>7</sup> , 6.673 × 10<sup>-11</sup>, 5.98 × 10<sup>24</sup> )
14. \_\_\_\_\_ ( ) \_\_\_\_\_ symbol denotes \_\_\_\_\_.  
(switch (closed), electric cell, switch (open), A wire joint,)
15. One roentgen produces \_\_\_pairs of ion in 1 gram of air.  
(1.5x10<sup>13</sup> , 1,6x 10<sup>14</sup> , 6.023x10<sup>23</sup> ,1.6 x 10<sup>12</sup> )

**SECTION – B (20 x 2 = 40)**

**II. Answer any twenty questions.**

16. List two important characteristic features:
17. write any two microbial products
18. Define-Induced clones: with eg.
19. *Malarial fever is not caused in a person immediately after introducing the sporozoites by an infected anopheles mosquito. Why?*

20. Select any one & Re- Draw with any two parts  
 21. Draw *Dicot Seed (Bean)* and label any two parts.  
 22. Re-draw the heart and label any two parts .  
 23. Identify Basic pattern of forelimbs of vertebrates  
 24. Which blood cells are without nuclei?



- What is the advantage of this condition  
 25. What is respiration? Give a balanced equation for aerobic respiration.  
 26. A fish taken out of water can not survive for a long time. Why?  
 27.. What are ammoniotelic and ureotelic animals? Give examples.  
 28. what are Seeding clouds?

29. Find the odd one out:

- i) bio-alcohol, green diesel, bio-ethers, petroleum  
 ii) cholera, typhoid, scabies, dysentery



30. A non-renewable resource is a natural resource, if it is replaced by natural process at a rate equal to or faster than its rate of consumption by humans.  
 Read this statement and say whether it is correct or incorrect. If it is incorrect, give the correct statement.

31. Pick out the appliances that can conserve electric energy.

Florescent bulbs, copper choke, solar water heater, electric water heater, tungsten bulbs, electronic choke.

32. Differentiate true solution and colloidal solution.

33. You have prepared a saturated solution of sugar at room temperature. Is it possible to dissolve some more grams of sugar to this solution? Justify your answer

34. Gram molecular mass of Oxygen is 32g. Density of Oxygen is 1.429g/cc. Find the gram molecular volume of Oxygen

35. Write any two Uses of Bases

36. The hydroxide ion concentration of a solution is 0.001M. Find  $p_H$  of the solution?

37. 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?

38.. Can the rusting of iron nails occur in distilled water? Justify your answer.

39. Diamond is the hardest allotrope of Carbon. Give reason for its hardness

40. Why does a spanner have a long handle?

41. Why does a boxer always move along the direction of the punch of the opponent

42. An electric bulb is connected to a 220V generator. The current is 0.50 A. What is the

power of the bulb?

43. potential difference 20 V is applied across a 4 resistor. Find the amount of heat produced in one second.

44. Write about ocean thermal energy?

45. Does magnetic monopole exist? Give reasons.

46. A 3 cm tall bulb is placed at a distance of 20 cm from a diverging lens having a focal length of 10.5 cm. Determine the distance of the image.

47. A needle placed at 30 cm from the lens forms an image on a screen placed 60cm on the other side of the lens. Identify the type of lens and determine the focallength.

**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. Explain Symptoms, Transmission, Causative agent , Control and prevention of Viral diseases ( Influenza )
49. Explain the methods are adopted for the disposal of harmful waste materials.

**PART – II**

50. Describe about the Islets of Langerhans with a neat diagram
51. Describe about Structure of a dicot seed (bean) with diagram

**PART – III**

- 52. . Explain RELATIVE ATOMIC MASS (RAM) based on hydrogen scale) & carbon - 12 scale**

53. Explain the processes (i) Esterification (ii) Decarboxylation

**PART – IV**

- 54. Discuss the effects of long-space flight on the human body**
55. Write the Sign Convention for Reflection by Spherical Mirrors

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

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