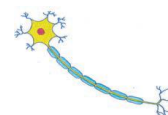


**KANCHI KALVI'S QUARTERLY EXAMINATION-2016-17****Class: X STD Subject: SCIENCE****Marks: 75****Time: 2:30Hrs****SECTION – A (15 x 1 = 15)****I. Choose and write the correct answer**

1. Choose the method by which the offspring are produced with significant variations.  
i) budding ii) regeneration iii) sexual reproduction iv) asexual reproduction
2. In persons suffering from insulin-dependent diabetes, \_\_\_\_\_ the cells of pancreas are degenerated. i) Alpha ii) Beta iii) Gamma iv) Delta
3. Which type of nutritional deficiency will affect that child?  
i) Kwashiorkar ii) Nyctalopia iii) Diabetes iv) Down syndrome
4. Neurotransmitters are released at the synapse by \_\_\_\_  
i) Tips of Dendrites ii) Synaptic Knobs iii) Organelles of Cyton iv) Myelin sheath of Axon
5. Anemophily occurs in \_\_\_\_\_.  
i) Vallisneria ii) Grass iii) Coconut iv) Datura
6. water pollution is caused by \_\_\_\_\_.  
i) sewage ii) crop cultivation iii) rain iv) soil erosion
7. What can we do to help increase water resources?  
i) deforestation ii) reducing the use of vehicles  
iii) the burning of the wastage iv) afforestation
8. Theri Kaadu is in \_\_ (Nilgris, Cuddalore, Madurai, Thoothukudi)
9. A solution containing less amount of solute is known as \_\_\_\_  
(Saturated, Super saturated, Unsaturated, dilute)
10. The hydroxide ion concentration of a solution is  $1.0 \times 10^{-9} \text{ M}$ .  
What is the pH of the solution? ( 9, 7, 5, 6 )
11. Cryogenics liquids are held in special containers called \_\_\_\_  
(round bottomed flask, Dewar flasks, both, none)
12. Using  $g = \frac{GM}{R^2}$  mass of the Earth found (nm/r<sup>2</sup>, Gm/R, GM/R<sup>2</sup>, NM<sup>2</sup>)
13. In our country, the potential difference between the two wires are  
(210V, 230V, 240V, 220 V.)
14. \_\_\_\_ is called neutral wire (Red, yellow, green, black)
15. The safe limit for receiving radiation is about \_\_\_\_ milli roentgen per week.  
( 150, 200, 250, 300)

**SECTION – B (20 x 2 = 40)****II. Answer any twenty questions.**

16. What do you mean by phenotype and genotype?
17. What are variations? Mention their types.
18. What are monoclonal antibodies & its use.
19. Mention the dominant and recessive traits observed by Mendel in the garden pea plant with respect to the seed and flower
20. Malarial fever is not caused in a person immediately after introducing the sporozoites by an infected anopheles mosquito. Why?
21. Name the stages of Plasmodium. i) introduced by an infected Anopheles mosquito.  
ii) picked up by Anopheles mosquito from an infected human being.
22. Name two diseases that are transmitted by houseflies. Mention their causative pathogens.
23. Copy the diagram and label any two parts in the group given:  
(cyton, axon, dendron, terminal branches)



24. Mark A,B in the brain A. Seat of smell B. Seat of vision

25. Copy the diagram and Label any two parts

26. Differentiate dehiscent fruits and indehiscent fruits with eggs.

27. What are monocotyledons and dicotyledons? Give examples.

28. Fill in the blanks i) Animals give out \_\_\_\_\_ through respiration.

ii) In the presence of sunlight, plants prepare \_\_\_\_\_.

29. Show an aquatic food chain using the following organisms.

(Small fish, Phytoplanktons, Kingfisher, Zooplanktons)

30. Give the dispersed phase and the dispersion medium in each of the following: a. cheese b. soda water c. Smoke

31. Radha prepared a solution which could be separated by filtration.

i) Name the type of solution ii) Is the solution transparent or opaque? iii) nature of the solution. iv) size of the solute particle

32. Find the concentration of solution in terms of weight percent if 20gm of common salt is dissolved in 50gm of water.

33. Molecular mass of Nitrogen is 28. Its atomic mass is 14. Find the atomicity of Nitrogen.

34. Calculate the number of moles in 90g of water

35. Why does the colour of  $\text{CuSO}_4$  change when an iron nail is kept in it?

36. Iron reacts with con.  $\text{HCl}$  and con.  $\text{H}_2\text{SO}_4$ , but it does not react with con.  $\text{HNO}_3$ . Justify your answer with proper reasons.

37. To design the body of an aircraft, aluminium alloys are used. why?

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

39. The mats used in gyms and the padding used in sports uniforms are made up of soft substances. Why are rigid materials not used?

40. Write two principles that are used in rocket propulsion

41. How much work is done in moving a charge of 5 C across two points having a potential difference 10 V ?

42. A current of 0.75 A is drawn by the filament of an electric bulb

for 10 minutes. Find the amount of electric charge that flows through the circuit.

43. Write about ocean thermal energy?

44. What is bio-mass? What can be done to obtain bio-energy using bio-mass?

#### 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

45. Tabulate the immunization schedule followed in INDIA

46. Describe meiosis with various stages (diagrams) & its significance

#### PART – II

47. Describe the Process of fertilization with a neat diagram

48. Explain the Environmental effects of coal burning

#### PART – III

49. Show that  $2 \times \text{vapour density} = \text{molecular mass}$

50. Explain homo and hetero atomic molecules

#### PART – IV

51. i) Space Stations are used to study the effects of long-space flight on the human body. justify. ii)  $F = G \frac{m_1 m_2}{d^2}$  is the mathematical form of Newton's law of gravitation, G - gravitational constant,  $m_1 m_2$ , are the masses of two bodies separated by distance d, then give the statement of Newton's law of gravitation..

52. List out any 5 achievements of Chandrayaan .

