

MODEL SCHOOL , PATTIMANIAKARANPALAYAM

SCIENCE

MODEL UNIT TEST -3

MARKS:50

LESSON:4,11,16

CHOOSE THE CORRECT ANSWER :

15*1=15

1. In sexual reproduction of flowering plants, the first event involved in this is _____.
i) fertilization ii) germination iii) regeneration iv) pollination

2. Which of the following statement is true?

- i) Thin-walled non-mobile spores are called zoospores.
- ii) A motile asexual spore produced by some algae, bacteria and fungi are Akinetes.
- iii) Uninucleate, non-motile, asexual spores produced by fungus are called conidia.
- iv) Thick-walled vegetative cells produced by algae during adverse conditions are called aplanospores.

3. The fertilized ovary is a fruit. The fruit that develops from a single flower with multi carpellary, apocarpous superior ovary is _____.

- Aggregate fruit ii) Composite fruit iii) Simple fruit iv) Multiple fruit

4. The flower is important to a plant because it helps in _____.

- i) attracting ii) production of nectar iii) pollination iv) sexual reproduction

5. Which of the following is correctly matched?

- i) False fruit – mango ii) Multiple fruit – apple
- iii) Aggregate fruit – polyalthia iv) Caryopsis – banana

6. A reddish brown coloured element 'X' on heating in air, becomes a black coloured compound 'Y'. X and Y are _____ and _____ (Cu, CuO / Pb, PbO).

7. Chemical volcano is an example of _____ .
(combination reaction / decomposition reaction)

8. Aluminium can displace Zinc metal from aqueous solution of Zinc sulphate because _____

(zinc is more reactive than aluminium / aluminium is more reactive than zinc).

9. When aqueous solution of silver nitrate and sodium chloride are mixed, _____ precipitate is immediately formed (white / yellow / red).

10. Vinegar is present in acetic acid. Curd contains _____ acid.
(Lactic acid / Tartaric acid).

11. Which one of the following statements does not represents Ohm's law?

- i) current / potential difference = constant
- ii) potential difference / current = constant

iii) $\text{current} = \text{resistance} \times \text{potential difference}$

12. The potential difference required to pass a current 0.2 A in a wire of resistance 20 ohm is _____. i) 100 V ii) 4 V iii) 0.01 V iv) 40 V

13. The atomic number of natural radioactive element is _____.
i) greater than 82 ii) less than 82 iii) not defined iv) atleast 92

14. Kilowatt-hour is the unit of _____. i) potential difference ii) electric power
iii) electric energy iv) charge

15. _____ surface absorbs more heat than any other surface under identical conditions. i) White ii) Rough iii) Black iv) Yellow

ANSWER ANY 10:

10*2=20

16. Name the agents of pollination in the following cases:

i) Bright coloured flowers with scent and nectar glands.

ii) No colour / scent/ nectar but pollen grains are dry, light weight and powdery. Stigma is feathery.

Also mention the plants in cases (i) & (ii).

17. Define fertilization.

18. Differentiate dehiscent fruits and indehiscent fruits with suitable examples.

19. What type of chemical reaction takes place when i) limestone is heated?

ii) a magnesium ribbon is burnt in air?

20. The hydroxide ion concentration of a solution is $1.0 \times 10^{-8} \text{M}$. What is the p_{H} of the solution?

21. Two acids 'A' and 'B' were kept in beakers. Acid 'A' undergoes partial dissociation in water, whereas acid 'B' undergoes complete dissociation in water.

i) Of the two acids 'A' and 'B', which is weak acid and which is strong acid?

ii) What is a weak acid?

iii) What is a strong acid?

iv) Give one example each.

22. Take copper nitrate in a test tube and heat it over the flame.

i) What is the colour of cupric nitrate?

ii) What do you observe?

iii) Name the type of reaction that takes place.

iv) Write the balanced equation.

23. Draw the schematic diagram of an electric circuit consisting of a battery of two cells of 1.5V each, three resistance of 5 ohm, 10 ohm and 15 ohm respectively and a plug key all connected in series

24 .How many electrons flow through an electric bulb every second, if the current that passes through the bulb is 1.6 A.

25. Correct the mistakes, if any, in the following statements.

- i) A good source of energy would be one which would do a small amount of work per unit volume of mass.
- ii) Any source of energy we use to do work is consumed and can be used again.

26. Fill in the blanks

- i) Potential difference : voltmeter; then current _____.
- ii) Hydro power plant : Conventional source of energy; then solar energy: _____.

ANSWER ANY 3:

3*5=15

- 27. i) Name the process by which a fruit is developed.
- ii) Explain the development process in brief.
- iii) Draw a neat, labelled diagram of that process.

28. Describe the structure of a dicot seed.

29. Mango and Coconut are both drupes. The mesocarp of mango is edible, while it is not so in coconut. Based on this fact, answer the following:

- i) Which part of the coconut is edible?
- ii) Why does the coconut have a fibrous mesocarp?
- iii) Can you mention any other use of the fibrous mesocarp?

30. What is known as pollination? List out biotic and abiotic factors which are involved in pollination?

T. CHANDRA SEKARAN M.Sc.,M.Ed.,M.Phil.,
MODEL SCHOOL, PATTIMANIAKARANPALAYAM,
NAMBIYUR UNION,
ERODE DISTRICT.
99656-99682