Mother merry senior secondary school

Jagatpura

ADMISSION TEST FOR CLASS -11

Class 10 - Science

Time Allowed: 40 minutes **Maximum Marks: 30**

1. When aqueous solutions of potassium iodide and lead nitrate are mixed, an insoluble substance separates out. The chemical equation for the reaction involved is:

   a) $2KI + Pb(NO_3)_2 \rightarrow PbI_2 + 2KNO_3$

   b) $KI + PbNO_3 \rightarrow PbI + KNO_3$

   c) $KI + Pb(NO_3)_2 \rightarrow PbI + KNO_3$

   d) $KI + PbNO_3 \rightarrow PbI_2 + KNO_3$

2. Keeping food in air-tight containers helps to slow down:

   a) Decomposition reaction

   b) Reduction

   c) Redox reaction

   d) Oxidation

3. When a student added zinc granules to dilute HCl, a colourless and odourless gas was evolved, which was tested with a burning matchstick, it was observed that

   a) The matchstick continued to burn brilliantly.

   b) The matchstick extinguished and the gas burnt with pop sound.

   c) The matchstick burnt slowly with a blue flame.

   d) The matchstick extinguished and the gas burnt with no sound.

4. Which of the following gas is evolved when $NaHCO_3$ is heated?

   a) CO_2

   b) CO

   c) O_2

   d) NO

5. $2Al + 3H_2O \rightarrow AI_2O_3 + X$

   What is X in the reaction?

   a) AI

   b) H_2

   c) O_3

   d) AIH_3

6. The melting point of NaCl is:

   a) 100 K

   b) 1000 K

   c) 1074 K

   d) 1047 K

7. Consider the following statements about homologous series of carbon compounds:

   a. All succeeding members differ by $-CH_2$ unit.

   b. Melting point and boiling point increases with increasing molecular mass.

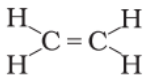
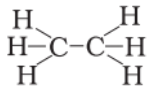
   c. The difference in molecular masses between two successive members is 16 u.

   d. C_2H_2 and C_3H_4 are **NOT** the successive members of alkyne series.

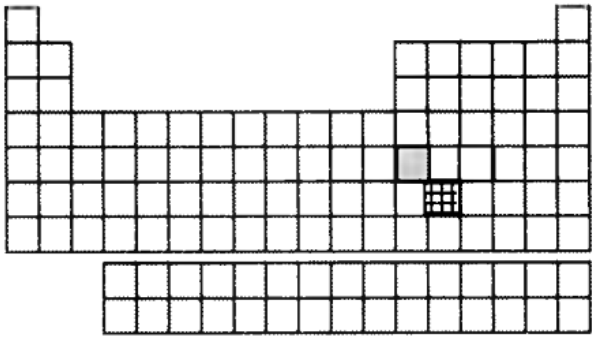
The correct statements are -

a) (b) and (c)
b) (a) and (c)
c) (c) and (d)
d) (a) and (b)

8. Structural formula of ethyne is

a) H - C ≡ C - H
b) 
c) H_3 - C ≡ C - H
d) 

9. Identify the most stable oxidation state for the highlighted elements.



a) = +1; = +3
b) = +1; = +2
c) = +1; = +4
d) = +3; = +4

10. Which of the following elements will form an acidic oxide?

a) An element with atomic number 12
b) An element with atomic number 19
c) An element with atomic number 7
d) An element with atomic number 3

11. In the excretory system of human beings, some substances in the initial filtrate such as glucose, amino acids, salts and water are selectively reabsorbed in

a) Ureter
b) Urethra
c) Urinary bladder
d) Nephron

12. Which is the first enzyme to mix with food in the digestive tract?

a) Cellulase
b) Pepsin
c) Trypsin
d) Amylase

13. Identify an involuntary action from the following:

a) Riding a bicycle
b) Walking in a straight line
c) Picking up a pencil
d) Regular beating of heart

14. **Statement 1:** Subcutaneous implant is a method of contraception and it is effective for a longer period.
Statement 2: Capsules are inserted under the skin and they slowly release synthetic progesterone.

a) Both statements 1 and 2 are false.
b) Statement 1 is true but statement 2 is false.
c) Both statements 1 and 2 are true and statement 2 is the correct explanation of
d) Both statements 1 and 2 are true but statement 2 is not the correct explanation of

statement 1.

statement 1.

15. Who proved the evidence of DNA as a genetic Material?

a) Gregor Mendel

b) Friedrich Miesner

c) Weismann

d) Lamarck

16. The two versions of a trait (character) which are brought in by the male and female gametes are situated on

a) any chromosome

b) two different chromosomes

c) sex chromosomes

d) copies of the same chromosome

17. In the concave reflector of a torch, the bulb is placed:

a) between focus and centre of curvature of reflector

b) at the focus of reflector

c) between the pole and focus of reflector

d) at the centre of curvature of reflector

18. The refractive indices of four media A, B, C, and D are 1.44, 1.52, 1.65, and 1.36 respectively. When light travelling in air is incident in these media at equal angles, the angle of refraction will be the minimum:

a) in medium B

b) in medium C

c) in medium A

d) in medium D

19. If a person can see a doll at the far distance, but he cannot have the newspaper in his hands. What lens should he wear to make correct his eyesight?

a) Concave lens

b) Prism

c) Convex lens

d) Bi-focal lens

20. The change in the focal length of an eye lens in human beings is caused by the action of

a) ciliary muscles

b) optic nerves

c) retina

d) cornea

21. The resistance of the conductor is R. If the length is doubled by stretching the wire, then its new resistance will be**:**

a) R

b) 4R

c) 8R

d) 2R

22. 100 joules of heat is produced per second in a 4 ohm resistor. What is the potential difference across the resistor?

a) 50 V

b) 60 V

c) 20 V

d) 10 V

23. The wire connected necessarily in series is

a) Fuse wire

b) Connecting wire

c) Heating wire

d) Source wire

24. A compass needle is kept far below, and parallel to a long straight current carrying wire. What is likely to happen to the compass needle?

a) Compass needle will defect towards right.

b) Deflects towards the west.

c) Compass needle is likely to remain

d) Compares needle will deflect towards left.

unaffected.

25. The most important safety device method used for protecting electrical appliances from short circuiting or overloading is

a) fuse
b) earthing
c) use of stabilizer
d) use of electric meter

26. Which of the following is a non-renewable source of energy?

a) Wind
b) Sun
c) Fossil fuel
d) Wood

27. The minimum speed of wind necessary for the satisfactory working of a wind generator to produce electricity is about:

a) $25\ km\ h^{-1}$
b) $60\ km\ h^{-1}$
c) $50\ km\ h^{-1}$
d) $15\ km\ h^{-1}$

28. Habitat is the special environment of an organism in which**:**

A. It lives
B. It grows
C. It breeds
D. It gets food

a) All of these
b) A and B
c) A and C
d) A, B and C

29. In a given food chain, suppose the amount of energy available at the third trophic level is 50 KJ. What will be the energy available at the producer level?

a) 5000 KJ
b) 50 KJ
c) 5 KJ
d) 500 KJ

30. Expand the abbreviation of GAP :-

a) Ganga action plan
b) Government agency for animal protection
c) Gross Assimilation by photosynthesis
d) Governmental Agency for pollution control