## SET - 2

## I.CHOOSE THE CORRECT ANSWER

$30 \times 1=30$

1. Inertia of a body depends on
(a) weight of the object
(b) acceleration due to gravity of the planet
(c) mass of the object
(d) Both a \& b
2. Where should an object be placed so that a real and inverted image of same size is obtained by a convex lens?
(a) f
(b) 2 f
(c) infinity
(d) between f and 2 f
3. If a substance is heated or cooled, the linear expansion occurs along the axis of $\qquad$
(a) X or -X
(b) Y or -Y
(c) both
(a) and (b)
(d) (a) or (b)
4. Kilowatt hour is the unit of $\qquad$
(a) resistivity
(b) conductivity
(c) electrical energy
(d) electrical power
5. If a sound wave travels with a frequency of $1.25 \times 104 \mathrm{~Hz} 344 \mathrm{~ms}^{-1}$, the wavelength will be $\qquad$
(a) 27.52 m
(b) 275.2 m
(c) 0.02752 m
(d) 2.752 m
6. Gamma radiations are dangerous because
(a) it affects eyes \& bones
(b) it affects tissues
(c) it produces genetic disorder
(d) it produces enormous amount of heat
7. The volume occupied by $4.4{\mathrm{~g} \text { of } \mathrm{CO}_{2} \text { at S.T.P }}^{\text {a }}$
(a) 22.4 litre
(b) 2.24 litre
(c) 0.24 litre
(d) 0.1 litre
8. Which of the following have inert gases 2 electrons in the outermost shell $\qquad$
(a) He
(b) Ne
(c) Ar
(d) Kr
9. Deliquescence is due to $\qquad$
(a) Strong affinity
to water
(b) Less affinity to water
(c) Strong hatred to water
(d) Inertness to water
10. Powdered $\mathrm{CaCO}_{3}$ reacts more rapidly than flaky $\mathrm{CaCO}_{3}$ because of
(a) large surface area
(b) high pressure
(c) high concentration
(d) high temperature
11. TFM in soaps represents content in soap
(a) mineral
(b) vitamin
(c) fatty acid
(d) carbohydrate
12. In the nucleus of $20 \mathrm{Ca}^{40}$, there are
(a) 20 protons \& 20 neutrons
(b) 20 protons \& 40 electrons
(c) 20 protons \& 40 neutrons
(d) 40 protons \& 20 electrons
13. A $25 \%$ alcohol solution means $\qquad$
(a) 25 ml alcohol in 100 ml of water
(b) 25 ml alcohol in 25 ml of water
(c) 25 ml alcohol in 75 ml of water
(d) 75 ml alcohol in 25 ml of water
14. Man-made radioactivity is also known as $\qquad$ —
(a) Induced radioactivity
(b) Spontaneous radioactivity (c) Artificial radioactivity
(d) a \& c
15. In which of the following, no change in mass number of the daughter nuclei takes place
(i) $\alpha$ decay, ii) $\beta$ decay, iii) $\gamma$ decay, iv) neutron decay
(a) (i) is correct
(b) (ii) and (iii) are correct
(c) (i) \& (iv) are correct
(d) (ii) \& (iv) are correct
16. The endarch condition is the characteristic feature of
a)root
b) stem
c)leaves
d) flower
17. The animals which give birth to young ones are
a) Oviparous
b) Viviparous
c) Ovoviviparous
d) All the above
18.The brain of leech lies above the
a) Mouth
b) Buccal Cavity
c) Pharynx
d) Crop
18. Which is the sequence of correct blood flow
a) ventricle - atrium - vein - arteries
b) atrium - ventricle - veins - arteries
c) atrium - ventricle - arteries - vein
d) ventricles - vein - atrium - arteries
21.In reflex action, the reflex arc is formed by
(a) brain, spinal cord, muscle
(b) receptor, muscle, spinal cord
(c) muscle, receptor, brain
(d) receptor, spinal cord, muscle
22.Which organ acts as both exocrine gland as well as endocrine gland
a) Pancreas
b) Kidney
c) Liver
d) Lungs
19. Male gametes in angiosperms are formed by the division of $\qquad$ -.
a) Generative cell
b) Vegetative cell
c) Microspore mother cell
d) Microspore
24.The number of chromosomes found in human beings are $\qquad$ .
a) 22 pairs of autosomes and 1 pair of allosomes.
b) 22 autosomes and 1 allosome
c) 46 autosomes
d) 46 pairs autosomes and 1 pair of allosomes.
25.The 'use and disuse theory' was proposed by $\qquad$ .
a. Charles Darwin
b. Ernst Haeckel
c. Jean Baptiste Lamarck
d. Gregor Mendel
20. We can cut the DNA with the help of
a. scissors
b. restriction endonucleases
c. knife
d. RNAase
21. rDNA is a
a. vector DNA b. circular DNA c. recombinant of vector DNA and desired DNA d. satellite DNA
22. Which type of cancer affects lymph nodes and spleen?
a) Carcinoma
b) Sarcoma
c) Leukemia
d) Lymphoma
29.The gas released from vehicles exhaust are i. carbon monoxide ii. Sulphur dioxide iii. Oxides of nitrogen a) i and ii b) $i$ and iii c) ii and iii d) i, ii and iii
23. Soil erosion can be prevented by
a) deforestation
b) afforestion
c) over growing
d) removal of vegetation

## II. ANSWER THE FOLLOWING (ANY 10)

31. State Snell's law.
32. Draw a ray diagram to show the image formed by a convex lens when the object is placed between F and 2 F .
33. Define dispersion of light
34. State Rayleigh's law of scattering.
35. Why does the sky appear in blue colour?
36.A is a silvery white metal.A combines with O 2 to form B at 800 oC , the alloy of A isused in making the aircraft. Find A and B.
36. What is rust? Give the equation for formation of rust.
37. State two conditions necessary for rusting of iron.

39 .Name the Secondary sex organs in male .
38. Define triple fusion .
39. Identity the parts $A, B, C$ and $D$.
40.Write the characteristics of insect pollinated flowers .

41. What is colostrum? How is milk production hormonally regulated?

