FSS

First Mid Term Test - 2022

10 - Std

SCIENCE

Reg. No.

Time : 1.30 Hrs

Marks : 50

PART – I

I. Choose the correct answer. 12 X 1 = 12

1. One kilogram force equals to _____ .
   (a) 9.8 dyne (b) 9.8×10^4 N
   (c) 98×10^4 dyne (d) 980 dyne.
2. To project the rockets which of the following principle(s) is / (are) required?
   (a) Newton's third law of motion (b) Newton's law of gravitation
   (c) law of conservation of linear momentum (d) both a and c.
3. A convex lens forms a real, diminished point sized image at focus. Then the position of the object is at:
   (a) focus (b) infinity
   (c) at 2f (d) between f and 2f
4. The eye defect 'presbyopia' can be corrected by:
   (a) convex lens (b) concave lens
   (c) convex mirror (d) Bi focal lenses
5. Which of the following is a triatomic molecule?
   (a) Glucose (b) Helium
   (c) Carbon dioxide (d) Hydrogen.
6. The volume occupied by 4.4 g of CO_2 at S.T.P:
   (a) 22.4 litre (b) 2.24 litre
   (c) 0.24 litre (d) 0.1 litre
7. ..... group contains the member of the halogen family.
   (a) 17^{th} (b) 15^{th} (c) 18^{th} (d) 16^{th}
8. ..... is an important metal to form amalgam.
   (a) Ag (b) Hg (c) Mg (d) Al
9. The endarch condition is the characteristic feature of _____.
   (a) root (b) stem (c) leaves (d) flower.
10. Kreb's cycle takes place in _____.
    (a) chloroplast (b) mitochondrial matrix
    (c) stomata (d) inner mitochondrial membrane.
11. The segments of leech are known as _____.
    (a) Metameres (somites) (b) Proglottids
    (c) Strobila (d) All the above.
12. The animals which give birth to young ones are _____.
    (a) Oviparous (b) Viviparous
    (c) Ovoviviparous (d) All the above.

PART – II

II Answer any 4 questions. Question number 18 is compulsory. 4 x 2 = 8

13. How does an astronaut float in a space shuttle?
14. Give any two examples for heteroatomic molecules.
15. True or False: (If false give the correct statement)
    a) Moseley's periodic table is based on atomic mass.
    b) Ionic radius increases across the period from left to right.
16. **Match the following.**

a) Amphicribal	-	i) Dracaena
b) Cambium	-	ii) Conduction of water
c) Amphivasal	-	iii) Fern
d) Xylem	-	iv) Secondary growth

17. Write the dental formula of rabbit.
18. Draw a ray diagram to show the image formed by a convex lens when the object is placed between F and 2F.

PART – III

III Answer any 4 questions. Question number 24 is compulsory. 4 x 4 = 16

19. Differentiate mass and weight.
20. a) What is refractive index?
    b) Why are traffic signals red in colour?
21. Write any four features of Periods.
22. What is photosynthesis and where in a cell does it occur?
23. List out the parasitic adaptations in the leech.
24. $N_2 + 3\ H_2 \rightarrow 2\ NH_3$
    (The atomic mass of nitrogen is 14, and that of hydrogen is 1)
    1 mole of nitrogen (.....g) +
    3 moles of hydrogen (.....g) -->
    2 moles of ammonia (.....g)

PART – IV

IV Answer all the questions. 2 x 7 = 14

25. a) i) Define inertia. Give its classification.
    ii) Describe rocket propulsion.

(OR)

    b) i) List any five properties of light?
    ii) Define dispersion of light.
26. a) i) Give the salient features of "Modern atomic theory".
    ii) What is an alloy?
    b) i) Name the three basic – tissues systems in flowering plants.
    ii) Explain the male reproductive system of rabbit with a labelled diagram.