FIRST REVISION TEST
MODEL 1
SCIENCE

TOTAL MARKS: 75
DURATION: 2.5 hr **Class:10**

I Choose the most suitable answer and write the code with the corresponding answer: 12x1=12

1 Inertia of body depends on_____
   a) weight of the body c) acceleration due to gravity of the planet
   b) mass of the object d) both a and b
2. Newton's III law is applicable
   a) For a body is at rest c) for a body in motion
   b) Both a & b d) only for bodies with equal masses
3. One kilogram force equals is
   a) 9.8 dyne c) 9.8 X 10^4 N
   b) 9.8 X 10^4 dyne d) 980 dyne
4. The refractive index of four substances A,B,C and D are 1.31,1.43,1.33,2 4 respectively. The speed of light is maximum in
   a) A c) B
   b) C d) D
5. The eye defect 'presbyopia' can be corrected by
   a) Convex lens c) concave lens
   b) Convex mirror d) bi focal lens
6. Where should an object be placed so that a real and inverted image of same size is obtained by convex lens
   a) f c) 2f
   b) infinity d) between f and 2f
7. Which of the following is a triatomic molecule?
   a) Glucose c) Helium
   b) Carbon dioxide d) Hydrogen

8 Mass of 1 mole of nitrogen atom is
   a) 28 amu c) 14 amu
   b) 28 g d) 14 g
9. Which of the following has the smallest mass?
   a) 6.023 X 10^{23} atoms of He c) 1 atom of He
   b) 2 g of He d) 1 mole atoms of He
10. Casparian strips are present in the _____ of the root.
   a) Cortex c) pith
   b) Pericycle d) endodermis
11. Kreb's cycle take place in
   a) Chloroplast c) mitochondria matrix
   b) Stomata d) inner mitochondrial membrane
12. The endarch condition is the characteristic feature of
   a) Root c) stem
   b) Leaves d) flower

II Answer any 7 questions (Q.No.22 is compulsory) 7X2=14

13. What are chloroplast and write the functions of chloroplast?
14. Draw the overview of Hill and Calvin cycle?
15. Define respiratory quotient?
16. Write the applications of concave lens?
17. Define atomicity?
18. Match the following:
    1. 8 g of O_2 - 4 moles
    2. 4 g of H_2 - 0.25 moles
    3. 52 g of He - 2 moles
    4. 35 5 g of Cl_2 - 0 5 moles
19. Define dispersion of light?
20. Write the functions of epidermal tissue system?
21. Differentiate mass and weight?
22. If a 5 N and 15 N forces are acting opposite to one another. Find the resultant force and the direction of the resultant force?

III Answer any 7 questions (Q.No.32 is compulsory) 7X4=28

23. Define inertia. Give its classification?
24. Two bodies have a mass ratio 3:4.The force applied on the bigger mass produces an acceleration of12ms^{-2}.What could be the acceleration of the other body, if the same force acts on it?
25. Explain the rules for obtaining images formed by a convex lens with the help of a ray diagram?
26. What are plastids and give its types?
27. Write the different types of isotopes of oxygen and its percentage abundance?
28. List the properties of light?
29. Define relative atomic mass?
30. What is photosynthesis and where in a cell does it occur?
31. Differentiate aerobic and anaerobic respiration ?
32. Answer the following questions using the data given below:
    i) A and R are correct, R explains the A.
    ii) A is correct, R is wrong.
    iii) A is wrong R is correct.
    iv) A and R are correct, R doesn't explains A.

    Assertion: The relative atomic mass of aluminium is 27

    Reason: An atom of aluminium is 27 times heavier than 1/12th of the mass of the C-12 atom.

IV Answer all the questions. Draw diagram wherever necessary 7X3=21

1. a) State newton s second law of motion?

   c) Deduce the equation of a force using Newton's second law of motion

   OR

   An object is placed at a distance 20 cm from a convex lens of focal length 10 cm. Find the image distance and nature of the image.

2. Give the salient features of modern atomic theory?

   OR

   How many grams are there in the following?

   i) 2 moles of hydrogen molecule, H_2

   ii) 3 moles of chlorine molecule, Cl_2

   iii) 5 moles of sulphur molecules,S_8

   iv) 4 moles of phosphorous molecule, P_4

3. Draw and explain types of Vascular Bundles?

   OR

   Describe and name three stages of cellular respiration the aerobic organisms use to obtain energy from glucose ?

Prepared by Mary Jerine