VGR COACHING CENTER

CLASS-X SCIENCE MARK-75

PART-A

CHOOSE THE CORRECT ANSWER

1. One kilogram force equals to
   a) 9.8 dyne b) 9.8 × 104 N c) 98 × 104dyne d) 980 dyne
2. Power of a lens is –4D, then its focal length is
   a) 4m b) –40m c) –0.25 m d) –2.5 m
3. In a myopic eye, the image of the object is formed
   a) behind the retina b) on the retina c) in front of the retina d) on the blind spot
4. Kilowatt hour is the unit of
   a) resistivity b) conductivity c) electrical energy d) electrical power
5. Mass of 1 mole of Nitrogen atom is
   a. 28 amu b. 14 amu c. 28 g d. 14 g
6. _____ is an important metal to form amalgam.
   a) Ag b) Hg c) Mg d) Al
7. The number of components in a binary solution is _____
   a. 2 b. 3 c. 4 d. 5
8. Deliquescence is due to _____
   a. Strong affinity to water b. Less affinity to water
   c. Strong hatred to water d. Inertness to water
9. During transpiration there is loss of
   a) carbon dioxide b) oxygen c) water d) none of the above
10. The endarch condition is the characteristic feature of
    a) root b) stem c) leaves d) flower
11. Which is formed during anaerobic respiration
    a) Carbohydrate b) Ethyl alcohol b) Acetyl CoA d) Pyruvate
12. 'Heart of heart' is called
    a) SA node b) AV node c) Purkinje fibres d) Bundle of His

PART-B

WRITE ANY 7 QUESTION

Q.NO 22 IS COMPULSORY

13. Match the following:

Column - I	Column - II
(i) electric current	(a) volt
(ii) potential difference	(b) ohm meter
(iii) specific resistance	(c) watt
(iv) electrical power	(d) joule
(v) electrical energy	(e) ampere

14. Differentiate mass and weight.
15. What are the causes of 'Myopia'?
16. Define one calorie.
17. Draw the structure of oxysomes?
18. Calculate the number of moles in
19. i) 27g of Al ii) 1.51×10^{23} molecules of NH_4Cl
20. What is meant by respirotory quotient? Define: Atomicity
21. 4. Give any two examples for heterodiatomic
22. molecules.
23. What is the importance of valves in the heart?
24. An object of height 3cm is placed at 10cm from a concave lens of focal length 15cm. Find the size of the image.
25. The ratio of masses of two planets is 2:3 and the ratio of their radii is 4:7 Find the ratio of their accelerations due to gravity.

PART C

WRITE ANY 7

Q.NO 29 IS COMPULSORY

26. List any five properties of light
27. Describe the structure and working of the human heart
28. Enumerate the functions of blood.
29. 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 molecule, S_8

iv. 4 moles of phosphorous molecule, P_4

30. What is meant by inertia and its types

31. A) Define Hydrated salt

a) What is mean by binary solution

32. Give salient feature of finding modern atomic theory

33. A) Why sinoatrial node called peacemaker of heart

B) What is photosynthesis and where in a cell does it occur?

34. A) monocot root and dicot root

b) Aerobic respiration and anaerobic respiration

PART D

WRITE ANY 3

1. A. State Ohm's law.

b. Differentiate convex lens and concave lens.

c.Explain the rules for obtaining images formed by a convex lens with the help of ray diagram

OR

A. Define electric potential and potential difference.

b. Describe rocket propulsion.

c. Define moment of a couple.

2. A. What is aqueous and non-aqueous solution? Give an example

b. Difference between hygroscopic substances and deliquescence.

c. Define: Atomicity Give any two examples for heterodiatomic molecules.

OR

a) What is meant by electric current?

b) Name and define its unit.

c) Which instrument is used to measure the electric current? How should it be

connected in a circuit?

3. Differentiate between systole and diastole.Explain the conduction of heart beat.

b. Who discovered Rh factor? Why was it named so?

OR

a.Describe and name three stages of cellular respiration that aerobic organisms use to obtain energy from glucose.

b. Name the three basic tissues system in flowering plants.

VGR COACHING CENTER
G.RAJA M.E
INJAMBAKKAM CHENNAI
NO. 8667090042

What is refractive index?

3.

.

4. Define dispersion of light

7.

8

2.

.

3.

State Boyle’s law

3.

4.

.

5. Define Volume percentage

.

8.

a)

b) Define solubility

4.

.

.

5

.

6. Why is the circulation in man referred to as

double circulation?

9.

Minerals cannot be passively absorbed by

the roots.

.

4.

5.