KANCHI KALVI'S

PHYSICS - FULL PORTION QUESTION PAPER (2016-17)
(LN – 14 TO 17 ONLY)

Class: **X STD**   Subject: **SCIENCE (PHY)**   Marks:75   Time: 2.30hrs

SECTION – A (15 x 1 = 15)
I.**Choose and write the correct answer;**

1. One astronomical unit is the mean distance between the centre of the Earth and centre of the -----------

2. The acceleration in a body is due to ----------

3. The physical quantity Which is equal to the rate of change of momentum is -

4. Kilowatt – hour is the unit of -----------

5. --surface absorbs more heat than any other surface under identical conditions

6. What is the fuel used in thermal power plants?

7. What is the main raw material used in the production of biogas?

8. The magnification produced by a mirror is + 1/3 . Then the mirror is a --------

9. An electric current through a metallic conductor produces ---------- around it.

10. The defect of hypermetropia can be corrected by using a -----------

11. Which part of the human eye helps in changing the focal length of the eye lens?

12. An object is placed 25 cm from a convex lens whose focal length is 10cm.The image distance is -------

13. Two electric bulbs have resistences in the ratio 1 : 2 . If they are joine in series,the energy consumed in these are in the ratio ---------

14. The physical quantity which is equal to the rate of change of momentum is

15. The Screw Gauge is used to measure the diameter of a --------------

SECTION – B (20 x 2 = 40)

II.Answer (any twenty) questions.

16.**Fill in the blanks**.

(i) If force = mass x acceleration,then momentum = ------------

(ii) If liquid hydrogen is for rocket,then -------- is for MRI.

17**. Assertion (A)** : Liquefied cryogenic gases are sprayed on underground

electric cables in big cities.

 Reason (R) : Liquefied cryogenic gases prevent wastage of power.

18.What do you mean by cryogenic fuels?

19. An object of mass 1 kg is dropped from a height of 20 m. It hits the

ground and rebounds with the same speed. Find the change in

momentum.(Take $g = 10$ m/s2)

20**. Fill in the blanks** :

 (i) Potential difference : voltmeter; then current ---------

 (ii) Hydro power plant : Conventional source of energe ; then solar

 energy : ----------

21 Draw the schematic diagram of an electric ciecuit consisting of a

battery of two cells of 1.5V

22. Fuse wire is made up of an alloy of ----------- which has high resistance

and --------

23**. Fill in the blanks**

(i) For a motor : a permanent magnet,then commercial motor :-----------

(ii) Focal length of a lens , meter, then for power of a lens -----------

24. In traffic signals --------- colour light is used to stop vehicles because it

has -------- wave length

25. Define Fleming"s left hand Rule.

26. Write down the names of the specified parts of the human eye.

1) Dark muscular diaphragm that controls the pupil

2) The screen where the image is formed by an eye lens.

27. The focal length of a concave lens is 2 m.Calculate the power of lens.

28. Does magnetic monopole exist? Give reasons

29. If the near point of a miyopic person is 75 cm, what should be the focal

length of the lens used to rectify this defect?

30. What is known as heating effect of electric current?

31. What are electro chemical cells?

32. What are the disadvantages of burning fossil fuels?

33. What is ocean thermal energy?

34. Define centre of curvature of a spherical mirror.

35. What are the properties of magnetic field lines?

36. Define magnification and its formula.

37. What are the sign conventions of spherical lenses?

38. State the laws of refraction.

39. What is angle of prism?

40. What are the parts of commercial motors?

SECTION – C (4 x 5 = 20)

III.Answer (any ONE) question from each options(A,B,C, & D)

A.41.(i) Discuss the effects of long-space flight on the human body **(OR)**
    (ii) Give the applications of cryogens.

B.42. (i) List out any five achievements of Chandrayaan **(OR)**
    (ii) Prove that $m_1u_1 + m_2u_2 = m_1v_1 + m_2v_2$

C.43. (i) Explain about AC generator with a neat diagram**(OR)**

    (ii) Explain about the Hubble telescope

D.44.(i) Describe the Refraction of Light through a Prism with a neat
     diagram **(OR)**
    (ii) Describe about Human Eye with a neat diagram

PREPARED FOR THE BETTERMENT OF ALL CHILDREN

T.S.SARAVANAN

B.Sc(Chem),B.Ed.,M.A(Eng.Lit),M.Phil(Eng.Lit),B.A(His)

METTUR DAM (R.S),

SALEM (D.T), - 636402

EMAIL; **sharavananvepp@gmail.com**

For conversation: **8675509227,9042331256**