

PUBLIC MODEL QUESTION PAPER 2023

Class : X  
mark : 75M

SCIENCE

Total

I. Choose the best correct answer  
(1 = 12 m)

( 12 x

1. One kilogram force equal to .....  
a) 9.8 dyne    b)  $9.8 \times 10^4$  N    c)  $98 \times 10^4$  dyne    d) 980 dyne
2. The unit of weight is  
a) Kg m    b) kg    c) Newton    d) kg/m
3. Mean value of the acceleration due to gravity is  
a)  $10.1 \text{ m/s}^2$     b)  $8.8 \text{ m/s}^2$     c)  $9.8 \text{ m/s}^2$     d) none of above
4. In which of the following sport the turning of effect of force used ?  
a) Swimming    b) Tennis    c) cycling    d) hockey
5. To produce a displacement ..... .. Is required  
a) Force    b) mass    c) velocity    d) acceleration
6. Magnification of a convex lens is .....  
a) +    b) -    c) + or -    d) 0
7. The eye defect "presbyopia" can be corrected by .....  
a) Convex lens    b) concave lens    c) convex mirror    d) bifocal lenses
8. ....helps in transpiration  
a) Stomato    b) Epidermis    c) Trichomes    d) Root hairs
9. Mammals are ..... animals  
a) Coled blood    b) warm blood    c) poikilothermic    d) All the above
10. The brain of leech lies above the .....  
a) Mouth    b) Buccal cavity    c) pharynx    d) crop

11. PNS is formed of..... Pairs of cranial nerves in rabbit  
a) 10 b) 12 c) 14 d) 16
12. The wall of human heart is made of  
a) Endocardium b) Epicardium c) unicellular d) both b and c

II. Answer any SEVEN Questions Q. NO .22 is compulsory ( 7 x 2 = 14 m)

13. What is inertia
14. State Newton's second law
15. Write the types of forces
16. What is refractive index
17. Why are traffic signals red in color ?
18. What are the common steps in aerobic and anaerobic pathway
19. How does leech respire?
20. What is cohesion?
21. Why are the rings of cartilages found in trachea of rabbit ?
22. A ball of mass 1 kg moving with a speed of 10 m/s rebounds after a perfect elastic collision with the floor. Calculate the change in linear momentum of the ball

III. Answer any SEVEN Questions Q.NO. 32 is compulsory. ( 7x 4 = 28m)

23. Differentiate mass and weight
24. Define impulse
25. Define Linear momentum
26. state Rayleigh's law of scattering
27. state snell's law

28. Differentiate convex lens and concave lens
29. what is respiratory quotient ?
30. write a short note on mesophyll
31. what causes the opening and closing of guard cells of stomato during transpiration ?
- 32 . what is transpiration ? give the importance of transpiration

Answer ALL Questions ( 3 x 7  
21m)

33 a) List any SEVEN properties of light

(or)

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

34 a) State and prove the laws of conservation of linear momentum

(or)

b)Write a note on vascular tissue system

35a) How do plants absorb water ? Explain

(or)

b)Draw a transverse section of Dicot leaf label the parts

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