Padasalai's Telegram Groups!

(தலைப்பிற்கு கீழே உள்ள லிங்கை கிளிக் செய்து குழுவில் இணையவும்!)

- Padasalai's NEWS - Group
https://t.me/joinchat/NIfCqVRBNj9hhV4wu6_NqA

- Padasalai's Channel - Group
https://t.me/padasalaichannel

- Lesson Plan - Group
https://t.me/joinchat/NIfCqVWwo5iL-21gpzrXLw

- 12th Standard - Group
https://t.me/Padasalai_12th

- 11th Standard - Group
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- 10th Standard - Group
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- 9th Standard - Group
https://t.me/Padasalai_9th

- 6th to 8th Standard - Group
https://t.me/Padasalai_6to8

- 1st to 5th Standard - Group
https://t.me/Padasalai_1to5

- TET - Group
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- PGTRB - Group
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- TNPSC - Group
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MTC TEST

MODEL QUESTION PAPER

STD: X **MARKS: 75**

SUB: SCIENCE **TIME: 2.30hrs**

PART-I

Choose the most suitable answer and write the code with corresponding answer (12×1=12)

1. The SI unit of torque is _____
   a) Nm b) Newton c) Dyne d) Kgf
2. Power of lens is -0.5D, then its focal length is ____
   a) 4m b) 0.2m c)-2m d) -0.25m
3. A ____ is used to used to indicate the direction of current.
   a) voltmeter b) Ammeter c) Galvanometer d) Rheostat
4. The volume occupied by 1 mole of a diatomic gas at S.T.P is
   a) 11.2 litre b) 5.6 litre c) 22.4 litre d) 44.8 litre
5. _____ Group contains the member of Halogen family.
   a) 17 b) 18 c) 15 d) 16
6. When pressure is increased at constant temperature the solubility of gases in liquid ____ a) No change b) increases c) decreases d) no reaction
7. The body of leech has
   (23 segments, 33 segments, 38 segments, 30 segments)
8. The endarch condition is the characteristic feature of a) root b) amphivasal c) conjoint d) None of these
9. 'Heart of heart' is called
   a) SA node b) AV node c) Purkinje fibres d) Bundle of His
10. Nerve cells do not possess
    a) neurilemma b) sarcolemma c) axon d) dendrites
11. Avena coleoptiles test was conducted by
    a) Darwin b) N.Smit c) F.W.Went c) Paal
12. Okasaki fragments are joined together by
    a) Helicase b) DNA polymerase c) RNA primer d) DNA ligase

Send Your Questions & Answer Keys to our email id - padasalai.net@gmail.com

PART-II

Answer Any Seven of the following: (7×2=14)

(Question number 22 is compulsory)

13. Define moment of a couple.
14. Differentiate convex lens and concave lens.
15. State Charles's law.
16. Calculate the number of water molecules present in one drop of water which weighs 0.18g.
17. Write the uses of Iron.
18. What is photosynthesis and where in a cell does it occur?
19. Write the differences between endocrine and exocrine gland.
20. Draw the structure of sperm and label its parts.
21. What is the importance of valves in the heart?
22. Keeping the temperature as constant, a gas is compressed four times of its initial pressure. The volume of gas in the container changing from 20cc (V1 cc) to V2 cc. Find the volume V2.

PART– III

iii. Answer any seven of the following:

(Question number 32 is compulsory) (7×4=28)

23. Deduce the equation of a force using Newton's second law of motion.
24. Explain the construction and working of a 'compound microscope'.
25. Explain superficial expansion with equation.
26. Give the salient features of "Modern atomic theory".
27. Explain the methods of preventing corrosion.
28. Write the differences between Dicot stem and Monocot stem.
29. With a neat labelled diagram explain the structure of a neuron.
30. Write the physiological effects of gibberellins.
31. How is the structure of DNA organized? What is the biological significance of DNA?

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32. (i).The ratio of masses of planets is 2:3 and the ratio of their radii is 4:7. Find the ratio of their accelerations due to gravity. (ii).What are the advantages of LED TV over the normal TV?

PART-IV

Note. (i) Answer all the questions: (3×7=21)

33.a). i. List any four properties of light .

ii. Derive the ideal gas equation .

(OR)

b).With the help of a circuit diagram derive the formula for the resultant resistance of three resistances connected.

34. a) i. Derive the relationship between Relative molecular mass and Vapour density.

ii. Calculate the % of each element in calcium carbonate.
(Atomic mass: C-12, O-16, Ca-40)

(OR)

b). i. In what way hygroscopic substances differ from deliquescent substances.

ii. Explain smelting process.

34. a).Explain male reproductive system of rabbit with a labeled diagram.

(OR)

b).What are the phases of menstrual cycle? Indicate the changes in the ovary and uterus.

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