



Padalsalai's Telegram Groups!

(தலைப்பிற்கு கீழே உள்ள லிங்கை கிளிக் செய்து குழுவில் இணையவும்!)

- **Padalsalai's NEWS - Group**
https://t.me/joinchat/NIfCqVRBNj9hhV4wu6_NqA
- **Padalsalai's Channel - Group**
<https://t.me/padasalaichannel>
- **Lesson Plan - Group**
<https://t.me/joinchat/NIfCqVWwo5iL-21gpzrXLw>
- **12th Standard - Group**
https://t.me/Padalsalai_12th
- **11th Standard - Group**
https://t.me/Padalsalai_11th
- **10th Standard - Group**
https://t.me/Padalsalai_10th
- **9th Standard - Group**
https://t.me/Padalsalai_9th
- **6th to 8th Standard - Group**
https://t.me/Padalsalai_6to8
- **1st to 5th Standard - Group**
https://t.me/Padalsalai_1to5
- **TET - Group**
https://t.me/Padalsalai_TET
- **PGTRB - Group**
https://t.me/Padalsalai_PGTRB
- **TNPSC - Group**
https://t.me/Padalsalai_TNPSC

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HALF PORTION TEST - 1**Standard X****SCIENCE**

Time : 2.30 hrs.

Maximum Marks : 75

Instructions: 1) Check the question paper for fairness of printing. If there is any lack of fairness, inform the Hall Supervisor immediately.

2) Use Black or Blue ink to write and pencil to draw diagrams.

Note: This question paper contains four parts.

PART - I

Note: i) Answer all the fifteen questions.

12x1=12

ii) Choose the most suitable answer and write the code with the corresponding answer.

- Impulse is equal to
 - rate of change of momentum
 - rate of force and time
 - change of momentum
 - rate of change of mass
- In a myopic eye, the image of the object is formed.....
 - behind the retina
 - on the retina
 - in front of the retina
 - on the blind spot
- If a substance is heated or cooled, the change in mass of that substance is
 - positive
 - negative
 - zero
 - none of the above
- In a simple circuit, why does the bulb glow when you close the switch?
 - The switch produces electricity
 - Closing the switch completes the circuit
 - Closing the switch breaks the circuit
 - The bulb is getting charged
- Which of the following represents 1 amu?
 - Mass of a C - 12 atom
 - Mass of a hydrogen atom
 - 1/12th of the mass of a C - 12 atom
 - Mass of O - 16 atom
- Which are available in Madurai?
 - Gypsum
 - Tungsten
 - Chromite
 - Magnetite
- Deliquescence is due to
 - strong affinity to water
 - less affinity to water
 - strong hatred to water
 - inertness to water
- Kreb's cycle takes place in
 - Chloroplast
 - Mitochondrial matrix
 - Stomata
 - Inner mitochondrial membrane
- The brain of leech lies above the
 - Mouth
 - Buccal cavity
 - Pharynx
 - Crop
- The outer most of the three cranial meninges is
 - Arachnoid membrane
 - Piamater
 - Duramater
 - Myelin sheath

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11. Estrogen is secreted by.....
 a) Anterior pituitary b) Primary follicle
 c) Graafian follicle d) Corpus luteum
12. Okasaki fragments are joined together by.....
 a) Helicase b) DNA Polymerase c) RNA primer d) DNA ligase

PART - II

Note: Answer any seven questions. Questions no. 22 is compulsory:

7x2=14

13. Define Weightlessness.
 14. What is magnification of a lens?
 15. What is Molar volume of a gas?
 16. Explain the variation of ionisation energy (i) along the period (ii) down the group.
 17. Define Ternary solution.
 18. Write the reaction for photosynthesis.
 19. What are the types of circulatory system?
 20. Identify the parts A, B, C and D



21. What are allosomes?
 22. Calculate the co-efficient of cubical expansion of a zinc bar whose volume is increased 0.25m^3 from 0.3m^3 due to the change in its temperature of 50K .

PART - III

Note: Answer any seven questions. Questions no. 32 is compulsory:

7x4=28

23. What are the types of inertia? Give an example for each type.
 24. Differentiate the eye defects : Myopia and Hypermetropia.
 25. Derive the expression of Joule's Law of heating.
 26. Explain the different types of separation or concentration of an ore.
 27. Write notes on (i) Saturated solution (ii) Unsaturated solution.
 28. How is the circulatory system designed in leech to compensate the heart structure?
 29. Differentiate between voluntary and involuntary actions.
 30. Where are estrogens produced? What is the role of estrogens in the human body?
 31. What are the contrasting characters of pea plant used by Mendel?
 32. Calculate the % of each element in calcium carbonate. (Atomic mass : C - 12, O - 16, Ca - 40)

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PART - IV

Note: i) Answer all the questions.

ii) Each question carries seven marks.

iii) Draw diagram wherever necessary.

3x7=21

33. a) i) List any four properties of light.
ii) Explain the rules for obtaining images formed by a convex lens with the help of ray diagram.

(OR)

- b) i) How does MCB work?
ii) Write short notes on Seven segment display.
34. a) i) What are the differences between atoms and molecules?
ii) Give the salient features of 'Modern atomic theory'.

(OR)

- b) i) Write notes on various factors affecting solubility.
ii) Write short notes on deliquescence substances.
35. a) i) Describe the structure and working of the human heart.
ii) How are arteries and veins structurally different from one another?

(OR)

- b) i) With a neat labelled diagram describe the parts of a typical angiospermic ovule.
ii) Write the advantages and the disadvantages of self pollination and cross pollination.
