

# JK Board Class 10 Science(Physics) Question Paper (Memory Based)

Time Allowed :3 Hour	Maximum Marks :60	Total Questions :24
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## General Instructions

Read the following instructions very carefully and strictly follow them:

- Answers to this Paper must be written on the paper provided separately.
- You will not be allowed to write during the first 15 minutes
- This time is to be spent in reading the question paper.
- The time given at the head of this Paper is the time allowed for writing the answers,
- The paper has four Sections.
- Section A is compulsory - All questions in Section A must be answered.
- You must attempt one question from each of the Sections B, C and D and one other question from any Section of your choice.

1. Define principal focus and focal length for a concave mirror.

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2. Explain the refraction of light through a rectangular glass slab.

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3. Define refractive index and state Snell's law of refraction.

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4. Distinguish between a concave and a convex lens with their uses.

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5. Define the power of a lens and state its S.I. unit.

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6. Calculate the focal length of a lens with power  $-2.0$  D and identify its type.

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7. Explain the causes and correction methods for Myopia (Short-sightedness) and Hypermetropia (Long-sightedness).

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8. State Ohm's law and derive the mathematical expression for it.

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9. Define electric power and derive the relation  $P = VI$ .

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10. Define 1 kilowatt-hour (kWh) and state its relationship with Joules.

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11. State Fleming's Left-Hand Rule and Right-Hand Thumb Rule.

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12. Differentiate between Direct Current (DC) and Alternating Current (AC).

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13. Define scattering of light and explain the Tyndall effect with an example.

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