

# Maharashtra Board Class 12 Physics Question Paper(Memory Based)

Time Allowed :3 Hours

Maximum Marks :70

Total questions :5

## General Instructions

**Read the following instructions very carefully and strictly follow them:**

1. Each activity has to be answered in full sentence/s. One word answers will not be given complete credit. Just the correct activity number written in case of options will not be given credit.
2. Web diagrams, flow charts, tables, etc. are to be presented exactly as they are with answers.
3. In point 2 above, just words without the presentation of the activity format, will not be given credit. Use of colour pencils/pens etc. is not allowed. (Only blue/black pens are allowed.)
4. Multiple answers to the same activity will be treated as wrong and will not be given any credit.
5. Maintain the sequence of the Sections/Question Nos./Activities throughout the activity sheet.

**1. What will be the shape of a liquid meniscus for an obtuse angle of contact?**

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**2. Define magnetization and state its SI unit.**

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**3. State the First Law of Thermodynamics.**

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**4. State and prove the Law of Conservation of Angular Momentum.**

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**5. Explain the phenomenon of surface tension on the basis of molecular theory.**

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**6. Obtain the differential equation of linear simple harmonic motion (SHM).**

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**7. State Lenz's Law and explain how it follows the law of conservation of energy.**

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**8. Derive an expression for the time period of a conical pendulum.**

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**9. Show that the root mean square (RMS) speed of gas molecules is directly proportional to the square root of the absolute temperature.**

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