



PHYSICS

BOOKS - PUNJAB BOARD PREVIOUS YEAR PAPERS

MAGNETIC DIPOLE AND EARTH'S MAGNETISM

Exercise

1. A short bar magnet has a magnetic moment of 0.24 JT^{-1} . Calculate the magnitude of the magnetic field produced by the magnet at a distance of 10 cm from the centre of the magnet, on the axis of the magnet.



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2. A short bar magnet has a magnetic moment of 0.2 JT^{-1} . Calculate the magnitude of the magnetic field produced by the magnet at

a distance of 8 cm from the centre of the magnet on the equatorial line of the magnet.



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3. Define magnetic inclination at a point.



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4. Define magnetic inclination at a point.



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5. Define magnetic declination at a place.



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6. Define magnetic inclination at a point.



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7. Define the term magnetic dipole moment.



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8. Why two magnetic lines of forces never intersect each other?



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9. What is neutral point in a magnetic field ?



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10. Write S.I. unit of 'm'(pole strength).



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11.Law for magnetism establishes that monopoles do not exist



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12. What are magnetic elements at a place. Define them.



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13. What happens if a bar magnet is cut into two equal pieces: transverse to its length



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14. What happens if a bar magnet is cut into two equal pieces: along its length.



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15. write units of magnetic dipole moment by taking into consideration the torque acting on it, when placed in magnetic field.



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16. State four properties of a bar magnet.



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17. What is the cause of earth's magnetism?



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18. Explain how an atom behaves as a magnetic dipole ? Find an expression for magnetic dipole moment of a revolving electron.



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19. Derive an expression for torque acting on a bar magnet placed in magnetic field





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20. Derive an expression for the magnetic field intensity at a point on the equatorial line of the magnetic dipole.



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21. What is probable cause of earth's magnetism?



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22. Define magnetic field intensity at a point. Derive an expression for magnetic field intensity at a point on the axial line of magnetic dipole with the help of diagram.



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23. Derive an expression for torque acting on a bar magnet placed in a uniform magnetic field.



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24. What is the cause of earth's magnetism?



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25. Derive an expression for the magnetic field intensity at a point on the equatorial line of the magnetic dipole.



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26. Give the possible causes of earth magnetic field.



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27. What are the elements of the earth's magnetic field? Define them.



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28. Define magnetic field intensity at a point.

Derive an expression for magnetic field intensity at a point on the axial line of magnetic dipole with the help of diagram.



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29. Derive an expression for the magnetic field

intensity at a point on the equatorial line of the magnetic dipole.



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30. Explain how an atom behaves as a magnetic dipole ? Find an expression for magnetic dipole moment of a revolving electron.



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31. Define magnetic field intensity at a point. Derive an expression for magnetic field intensity at a point on the axial line of magnetic dipole with the help of diagram.



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32. Define magnetic field intensity at a point.

Derive an expression for magnetic field intensity at a point on the axial line of magnetic dipole with the help of diagram.



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33. Derive an expression for Torque acting on a bar magnet placed in a uniform magnetic field.



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34. Give the possible causes of earth magnetic field.



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35. Write SI unit of magnetic dipole moment.



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36. Define magnetic field intensity at a point. Derive an expression for magnetic field intensity at a point on the axial line of magnetic dipole with the help of diagram.



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