**MCQs Magnetic Effects of Electric Current**

Magnetic Effect of Electric Current Class 10 MCQ Question 1. Magnetic effect of current was discovered by  
(a) Oersted  
(b) Faraday  
(c) Bohr  
(d) Ampere

**Answer/Explanation**

Answer: a  
Explanation:  
(a) Oersted showed that electricity and magnetism were related phenomena.

2. Inside the magnet, the field lines moves  
(a) from north to south  
(b) from south the north  
(c) away from south pole  
(d) away from north pole

**Answer/Explanation**

Answer: a  
Explanation:  
(a) Magnetic field inside the magnet moves from south to north pole.

3. Relative strength of magnetic field at a point in the space surrounding the magnet is shown by the  
(a) length of magnet  
(b) thickness of magnet  
(c) degree of closeness of the field.  
(d) resistance offered by the surroundings

**Answer/Explanation**

Magnetic Effect of Electric Current Class 10 MCQ With Answer: a  
Explanation:  
(a) The force acting on the pole of another magnet by the crowded magnetic field lines is greater.

4. Which of the following statement is not correct about the magnetic field?  
(a) Magnetic field lines form a continuous closed curve.  
(b) Magnetic field line do not interest each other.  
(c) Direction of tangent at any point on the magnetic field line curve gives the direction of magnetic field at that point.  
(d) Outside the magnet, magnetic field lines go from South to North pole of the magnet.

**Answer/Explanation**

Answer:  
Explanation:  
(d) Outside the magnet, magnetic field line emerges from North-pole and moves towards south-pole.

5. By which instrument, the presence of magnetic field be determined?  
(a) Magnetic Needle  
(b) Ammeter  
(c) Galvanometer  
(d) Voltmeter

**Answer/Explanation**

Answer: d  
Explanation:  
(a) With the help of magnetic field, one can find the presence of magnetic field in a region by observing its deflection.

6. The pattern of the magnetic field produced by the straight current carrying conducting wire is  
(a) in the direction opposite to the current  
(b) in the direction parallel to the wire  
(c) circular around the wire  
(d) in the same direction of current

**Answer/Explanation**

Answer: a  
Explanation:  
(c) Magnetic field line around a current carrying straight conductor is represented by concentric circles.

7. The strength of magnetic field around a current carrying conductor is  
(a) inversely proportional to the current but directly proportional to the square of the distance from wire.  
(b) directly proportional to the current and inversely proportional to the distance from wire.  
(c) directly proportional to the distance and inversely proportional to the current  
(d) directly proportional to the current but inversely proportional the square of the distance from wire.

**Answer/Explanation**

Answer: b  
Explanation:  
• magnetic field strength increases on increasing the current through the wire.  
• magnetic field strength decreases as the distance from the wire increases.

8. A current through a horizontal power line flows from south to North direction. The direction of magnetic field line 0.5m above it is  
(a) North  
(b) South  
(c) West  
(d) East

**Answer/Explanation**

Answer: a  
Explanation:  
(a) Apply right-hand thumb rule.

9. The nature of magnetic field line passing through the centre of current carrying circular loop is  
(a) circular  
(b) ellipse  
(c) parabolic  
(d) straight line

**Answer/Explanation**

Answer: d  
Explanation:  
(d) magnetic field line at the centre of current carrying loop appears as a straight line.

MCQ Questions for Class 10 Magnetic Effect of Electric Current Question 10. The strength of each of magnet reduces to half when it cut along its length into the equal parts magnetic field strength of a solenoid. Polarity of solenoid can be determined by  
(a) use of compass needle  
(b) Right hand thumb rule  
(c) fleming left hand rule  
(d) either (a) or (b)

**Answer/Explanation**

Answer: d  
Explanation:  
(d) both (a) and (b) can be use to determine the polarity of solenoid.

11. The factors on which one magnetic field strength produced by current carrying solenoids depends are  
(a) Magnitude of current  
(b) Number of turns  
(c) Nature of core material  
(d) All of the above

**Answer/Explanation**

Answer: d  
Explanation:  
(d) Factors shown in (a), (b) and (c).

12. A soft iron bar is introduced inside the current carrying solenoid. The magnetic field inside the solenoid  
(a) will decrease  
(b) will remains same  
(c) will increase  
(d) will become zero

**Answer/Explanation**

Answer: c  
Explanation:  
(c) Soft iron inside the current carrying solenoid act as an electromagnet.

13. When current is parallel to magnetic field, then force experience by the current carrying conductor placed in uniform magnetic field is  
(a) Twice to that when angle is 60°  
(b) Thrice to that when angle is 60°  
(c) zero  
(d) infinite

**Answer/Explanation**

Answer: a  
Explanation:  
(a) If the current direction is parallel to the magnetic field, then there will no force on the conductor exerted by the magnetic field.

14. A positive charge is moving upwards in a magnetic field directed towards north. The particle will be deflected towards  
(a) west  
(b) north  
(c) south  
(d) east

**Answer/Explanation**

Magnetic Effects of Electric Current Class 10 MCQ Questions and Answer: a  
Explanation:  
(a) Apply fleming’s left hand rule

15. Which of the following factors affect the strength of force experience by a current carrying conduct in a uniform magnetic field?  
(a) magnetic field strength  
(b) magnitude of current in a conductor  
(c) length of the conductor within magnetic field  
(d) All of above.

**Answer/Explanation**

Answer: d  
Explanation:  
(d) All the factors affect the strength of magnetic force.

16. Direction of rotation of a coil in electric motor is determined by  
(a) fleming’s right hand rule  
(b) fleming’s left hand rule  
(c) faraday law of electromagnetic inductors  
(d) None of above

**Answer/Explanation**

Answer: b  
Explanation:  
(b) Fleming’s left hand rule.

Multiple Choice Questions on Magnetic Effect of Electric Current Question 17. In electric motor, to make the coil rotating continuously in the same direction, current is reversed in the coil after every half rotation by a device called  
(a) carbon brush  
(b) commutator  
(c) slip ring  
(d) armature

**Answer/Explanation**

Answer: b  
Explanation:  
(b) A device that reverses the direction of current in the arms of armature through a circuit is called commutation.

18. The condition for the praenomen of electromagnetic induction is that there must be a relative motion between  
(a) the galvanometer and magnet  
(b) the coil of wire and galvanometer  
(c) the coil of wire and magnet  
(d) the magnet and galvanometer

**Answer/Explanation**

Answer: c  
Explanation:  
(c) The relative motion between the magnet and coil of wire causes change in magnetic field lines linked with the coil to produces induced current if the circuit is closed.

19. The instrument that use to defect electric current in the circuit is known as  
(a) electric motor  
(b) A.C generator  
(c) galvanometer  
(d) none of the above

**Answer/Explanation**

Answer: a  
Explanation:  
(a) A galvanometer is an instrument that can direct the presence of current in a circuit.

20. We can induce the current in a coil by  
(a) moving the coil in a magnetic field  
(b) by changing the magnetic field around it  
(c) by changing the orientation of the coil in the magnetic field  
(d) All of above

**Answer/Explanation**

Answer: a  
Explanation:  
(a) The method can be used to induce the potential difference across the ends of a coil and hence induce current.

21. A magnet is moved towards a coil (i) quickly (ii) slowly. The induced potential difference  
(a) more in (i) than in (ii) case  
(b) more in (ii) than in (i) case  
(c) same in both  
(d) can’t say

**Answer/Explanation**

Answer: a  
Explanation:  
(a) When magnet is moved quickly, more will be the changing magnetic field strength and hence larger is the induced potential difference.

22. A.C generator works on the principle of  
(a) force experience by a conductor in magnetic field  
(b) electromagnetic induction  
(c) electrostatic  
(d) force experience by a charge particle in electric field.

**Answer/Explanation**

Answer: a  
Explanation:  
(a) Generator works on principle of electromagnetic induction.

23. Fleming’s left hand and Right hand rules are used in  
(а) Generator and electric motor  
(b) Electric motor and generator  
(c) any rule can be used for any device  
(d) both are not applied for generator and motor.

**Answer/Explanation**

Answer: b  
Explanation:  
(b) Electric motor employs Fleming left hand rule while for generator, Fleming right-hand rule is used.

24. A D.C generator works on the principle of  
(a) ohnis law  
(b) Joule’s law of heating  
(c) faraday’s law of electromagnetic induction.  
(d) none of the above

**Answer/Explanation**

Answer: c  
Explanation:  
(c) electric generator works on the basis of electromagnetic induction.

25. If the current values periodically from zero to a maximum value, back to zero and then reverses its direction, the current is  
(a) direct  
(b) alternative  
(c) pulsating  
(d) none of the above

**Answer/Explanation**

Answer: b  
Explanation:  
(b) The alternating current reverse its direction periodically.

26. Earth wire carries  
(a) current  
(b) voltage  
(c) no current  
(d) heat

**Answer/Explanation**

Answer: c  
Explanation:  
(c) Earth wire carries no current.

27. The main advantage of A.C power transmission over D.C power transmission over’ long distance is  
(a) AC transmit without much loss of energy  
(b) less insulation problem  
(c) less problem of instability  
(d) easy transformation.

**Answer/Explanation**

Answer: a  
Explanation:  
(a) AC transmit over a long distance without much loss of energy as compare to DC.

28. Which among of these are the main characteristics of fuse element?  
(a) High conductivity  
(b) low melting point  
(c) do not bum due to oxidation  
(d) All of the above

**Answer/Explanation**

Answer: d  
Explanation:  
(d) Fuse wire must have all the characteristic to prevent from a possible damage.

MCQ of Magnetic Effects of Electric Current Question 29. Overloading is due to  
(a) Insulation of wire is damaged  
(b) fault in the appliances  
(c) accidental hike in supply voltage  
(d) All of the above

**Answer/Explanation**

Answer: d  
Explanation:  
(d) All are the causes to occur overloading

30. If the key in the given arrangement is taken out (the circuit is made open) and magnetic field lines are drawn over the horizontal plane ABCD, the lines are

(a) concentric circles  
(b) elliptical in shape  
(c) straight lines parallel to each other  
(d) concentric circles near the point O but of elliptical shapes as we go away from it [NCERT Exemplar Problems]

**Answer/Explanation**

Answer: a  
Explanation:  
(a) Magnetic field lines around a straight current carrying conductor are in the form of concentric circle.

31. For a current in a long straight solenoid N-pole and S-pole are created at the two ends. Among the following statements, the incorrect statement is [NCERT Exemplar Problems]  
(a) The field lines inside the solenoid are in the form of straight lines which indicates that the magnetic field is the same at all points inside the solenoid.  
(b) The strong magnetic field produced inside the solenoid can be used to magnetise a piece of magnetic material like soft iron, when placed inside the coil.  
(c) The pattern of the magnetic field associated with the solenoid is different from the pattern of the magnetic field around a bar magnet.  
(d) The N-pole and S-pole exchange position when the direction of current through the solenoid is reversed.

**Answer/Explanation**

Answer: c  
Explanation:  
(c) A solenoid behaves like a bar magnet. Hence the pattern of magnetic field associated with solenoid and around the bar magnet is same.

32. Commercial electric motors do not use  
(a) an electromagnet to rotate the armature  
(b) effectively large number of turns of conducting wire in the current carrying coil  
(c) a permanent magnet to rotate the armature  
(d) a soft iron core on which the coil is wound

**Answer/Explanation**

Answer: c  
Explanation:  
(c) Using electromagnet, the magnetic field strength further increase by increasing the current. Hence it will enhance the power of electric.

33. The strength of magnetic field inside a  
long current carrying straight solenoid is  
(a) more at the ends than at the centre  
(b) minimum in the middle  
(c) same at all points  
(d) found to increase from one end to the other

**Answer/Explanation**

Answer: c  
Explanation:  
(c) A current carrying solenoid produces a uniform magnetic field inside it.

34. To convert an AC generator into DC generator  
(a) split-ring type commutator must be used  
(b) slip rings and brushes must be used  
(c) a stronger magnetic field has to be used  
(d) a rectangular wire loop has to be used

**Answer/Explanation**

Answer: a  
Explanation:  
(a) To connect AC generator into DC generator, split ring type commutation must be used to get a unidirectional direct current.

35. The most important safety method used for protecting home appliances from short circuiting or overloading is  
(a) earthing  
(b) use of fuse  
(c) use of stabilizers  
(d) use of electric meter

**Answer/Explanation**

Answer: b  
Explanation:  
(b) It is most important method for protecting the electrical devices from short circuiting or overloading by stopping the flow of any large electric current exceeds from its rating.

36. What should be the core of an electromagnet?  
(a) soft iron  
(b) hard iron  
(c) rusted iron  
(d) none of above

**Answer/Explanation**

Answer: a  
Explanation: (a) soft iron

37. Who has stated the Right hand Thumb Rule?  
(a) Orsted  
(b) Fleming  
(c) Einstein  
(d) Maxwell

**Answer/Explanation**

Answer: d  
Explanation: (d) Maxwell

38. What is that instrument which can detect the presence of electric current in a circuit?  
(a) galvanometer  
(b) motor  
(c) generator  
(d) none of above

**Answer/Explanation**

Answer: a  
Explanation: (a) galvanometer

Magnetic Class Question 39. Which device produces the electric current?  
(a) generator  
(b) galvanometer  
(c) ammeter  
(d) motor

**Answer/Explanation**

Answer: a  
Explanation: (a) generator

40. The best material to make permanent magnets is  
(a) aluminium  
(b) soft iron  
(c) copper  
(d) alnico

**Answer**

Answer: d

41. The magnetic field lines always begin from  
(a) N-pole and end on S-pole.  
(b) S-pole and end on N-pole.  
(c) start from the middle and end at N-pole.  
(d) start from the middle and end at S-pole.

**Answer**

Answer: a

42. The magnetic field is the strongest at  
(a) middle of the magnet.  
(b) north pole.  
(c) south pole.  
(d) both poles.

**Answer**

Answer: d

43. Material of the core of a strong magnet is  
(a) aluminium  
(b) soft iron  
(c) copper  
(d) steel

**Answer**

Answer: b

44. Magnetic lines of force inside current carrying solenoid are  
(a) perpendicular to axis.  
(b) along the axis and are parallel to each other.  
(c) parallel inside the solenoid and circular at the ends.  
(d) circular.

**Answer**

Answer: c

45. A soft iron bar is introduced inside a current carrying solenoid. The magnetic field inside the solenoid  
(a) will become zero.  
(b) will increase.  
(c) will decrease.  
(d) will remain unaffected.

**Answer**

Answer: b

46. An electric generator actually acts as  
(a) a source of electric charge.  
(b) a source of neat energy.  
(c) an electromagnet.  
(d) a converter of energy.

**Answer**

Answer: d

47. A magnetic field directed in north direction acts on an electron moving in east direction. The magnetic force on the electron will act  
(a) vertically upwards.  
(b) towards east.  
(c) vertically downwards.  
(d) towards north.

**Answer**

Answer: c

48. The direction of force on a current carrying conductor in a magnetic field is given by  
(a) Fleming’s left hand rule.  
(b) Fleming’s right hand rule.  
(c) Right hand thumb rule.  
(d) Left hand thumb rule.

**Answer**

Answer: a

49. The direction of induced current is given by  
(a) Fleming’s right hand rule.  
(b) Fleming’s left hand rule.  
(c) Right hand thumb rule.  
(d) Left hand thumb rule.

**Answer**

Answer: a

50. Switches are connected to  
(a) live wire.  
(b) neutral wire.  
(c) earth wire.  
(d) any one.

**Answer**

Answer: a

51. The most important safety method used for protecting home appliances from short-circuiting or Overloading is  
(a) earthing  
(b) use of stabilizers  
(c) use of fuse  
(d) use of electric meter

**Answer**

Answer: c

Direction (Q52 to Q58): In the following Questions, the Assertion and Reason have been put forward. Read the statements carefully and choose the correct alternative from the following:  
(a) Both the Assertion and the Reason are correct and the Reason is the correct explanation of the Assertion.  
(b) The Assertion and the Reason are correct but the Reason is not the correct explanation of the Assertion.  
(c) Assertion is true but the Reason is false.  
(d) The statement of the Assertion is false but the Reason is true.  
52. Assertion: Only a change in magnetic field lines linked with coil will induces current in the coil.  
Reason: The presence of large magnetic flux through the coil maintains a current in a closed circuit coil.

**Answer/Explanation**

Answer: c  
Explanation:  
(c) Assertion is true but the Reason is false.

53. Assertion: When the direction of velocity of moving charge is perpendicular to the magnetic field, it experience a maximum force.  
Reason: Force on the moving charge does not depends on the direction magnetic field in which it moves.

**Answer/Explanation**

Answer: c  
Explanation:  
(c) Assertion is true but the Reason is false.

54. Assertion: Fuse is a safety device which is installed to prevent electrical circuits and possible fires.  
Reason: Fuse consist of tin-plated copper wire having low melting point, which melts and breaks the circuit if the current exceeds a safe value.

**Answer/Explanation**

Answer: a  
Explanation:  
(a) Both the Assertion and the Reason are correct and the Reason is the correct explanation of the Assertion.

55. Assertion: Steel core is used as an electromagnet.  
Reason: Steel gets permanently magnetised when the current flows through the coil wound around.

**Answer/Explanation**

Answer: d  
Explanation:  
(d) The statement of the Assertion is false but the Reason is true.

56. Assertion: It is fatal to touch a live electric wire as the person gets a severe electric shock. In some cases, electric shock can even kill a person.  
Reason: The electric current passes through the body to the earth forming a circuit and bums the blood.

**Answer/Explanation**

Answer: a  
Explanation:  
(a) Both the Assertion and the Reason are correct and the Reason is the correct explanation of the Assertion.

57. Assertion: Strength of an electromagnet depends on the magnitude of current flowing through them.  
Reason: Electromagnets are majorly used for lifting heavy weights.

**Answer/Explanation**

Answer: b  
Explanation:  
(b) The Assertion and the Reason are correct but the Reason is not the correct explanation of the Assertion.

58. Assertion: It is easier to bring North pole of a magnet to South pole of other magnet.  
Reason: There is a force of attraction between unlike poles of magnet.

**Answer/Explanation**

Answer:  
Explanation:  
(a) Both the Assertion and the Reason are correct and the Reason is the correct explanation of the Assertion.

59. \_\_\_\_\_\_\_\_\_\_ is the commercial unit of electrical energy.

**Answer/Explanation**

Answer:  
Explanation: kilowatt hour

60. The touching of the live wire and neutral wire directly is known as \_\_\_\_\_\_\_\_\_\_ .

**Answer/Explanation**

Answer:  
Explanation: short circuit

61. A D.C. generator is based on the principle of \_\_\_\_\_\_\_\_\_\_ .

**Answer/Explanation**

Answer:  
Explanation: electromagnetic induction

62. \_\_\_\_\_\_\_\_\_\_ generators are used in power stations to generate electricity which is supplied to our homes.

**Answer/Explanation**

Answer:  
Explanation: A.C.

63. A \_\_\_\_\_\_\_\_\_\_ works on the principle that when a rectangular coil is placed in a magnetic field and current is passed through it, a force acts on the coil which rotates it continuously.

**Answer/Explanation**

Answer:  
Explanation: motor

64. When North pole approaches a coil, the front side of the coil will show an \_\_\_\_\_\_\_\_\_\_ current.

**Answer/Explanation**

Answer:  
Explanation: anticlockwise

65. By sending current through a coil wound round a rod one can magnetise it permanently. [True/False]

**Answer/Explanation**

Answer:  
Explanation: False

66. The rate of change in magnetic flux produces induced emf or potential. [True/False]

**Answer/Explanation**

Answer:  
Explanation: True

67. In ideal conditions, green colour insulation is given for live wire. [True/False]

**Answer/Explanation**

Answer:  
Explanation: False

68. Over-loading is caused by connecting many devices to one supply point. [True/False]

**Answer/Explanation**

Answer:  
Explanation: True

69. Potential of the earthed wire is zero. [True/False]

**Answer/Explanation**

Answer:  
Explanation: True

70. When a magnet is moved with its north polarity towards a coil placed in a closed circuit, then the neares face of the coil shows north polarity. [True/False]

**Answer/Explanation**

Answer:  
Explanation: True

71. When a coil and magnet both are stationary an induced emf is setup across the coil. [True/False]

**Answer/Explanation**

Answer:  
Explanation: False

Direction: Match Column I with Column II.  
72.

|  |  |
| --- | --- |
| Column I | Column II |
| (i) Electric motor | (A) Electromagnet |
| (ii) Solenoid | (B) Heating effect of electric current |
| (iii) Safety Fuses | (C) Electrical energy to mechanical energy |
| (iv) Electric generator | (D) Electromagnetic induction |

**Answer/Explanation**

Answer:  
Explanation:  
(i) → (C)  
(ii) → (A)  
(iii) → (B)  
(iv) → (D)

73. State the observation made by Oersted on 1 the basis of his experiment with curren carrying conductors.

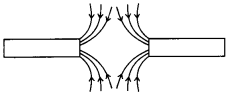
**Answer/Explanation**

Answer:  
Explanation:  
The electric current passing through a conducting wire produces magnetic effect.

74. Name the device which is used to draw magnetic field lines.

**Answer/Explanation**

Answer:  
Explanation: Compass needle.

75. Identify the poles of the magnet in the given figure.  


**Answer/Explanation**

Answer:  
Explanation:  
Both the poles facing each other represent south pole in nature as the magnetic field lines outside the magnet move from North to South Poles.

76. A magnet AB is broken into two pieces. What is the polarity of A, B, C and D?  
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**Answer/Explanation**

Answer:  
Explanation:  
If A is the North pole, then C – South pole D – North pole B – South pole

77. What is the direction of magnetic field lines inside and outside of a bar magnet?

**Answer/Explanation**

Answer:  
Explanation:  
Direction of magnetic field lines:  
Inside a bar magnet: from South pole to North pole.  
Outside of a bar magnet: from North pole to a South pole.

78. A magnetic needle deflects when it’s brought near a current carrying conductor. Why?

**Answer/Explanation**

Answer:  
Explanation:  
Magnetic force exerted by the magnetic field produced by the straight current carrying conductor causes the deflection in the needle.

79. Name two parts of your body where magnetic field is produced significantly.

**Answer/Explanation**

Answer:  
Explanation: Heart and Brain.

80. Suggest one way of discriminating a ware carrying current from a wire carrying no current.

**Answer/Explanation**

Answer:  
Explanation:  
Deflection in the compass needle discriminates a wire carrying current from a wire carrying no current.

81. State the conclusions that can be drawn from the observation that a current carrying wire deflects a magnetic needle placed near it.

**Answer/Explanation**

Answer:  
Explanation:  
Current carrying wire exhibits properties of magnetism which indicate that electricity and magnetism are related phenomena.

82. How can you show that the magnetic field produced by a given electric current in the wire decreases as the distance from the wire increases?

**Answer/Explanation**

Answer:  
Explanation:  
The decrease in deflection of the magnetic compass needle clearly shows that the magnetic field decreases as we move away from the current-carrying conductor.

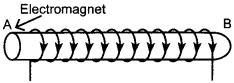
83. A current carrying straight wire held perpendicular to the plane of paper and current passes through this conductor in the vertically upward direction. What is the direction of magnetic field produced around it?

**Answer/Explanation**

Answer:  
Explanation:  
According to right-hand thumb rule, the direction of magnetic field produced around the given conductor is anticlockwise.

84. If the circular coil has n turns, the field produced is n times as large as that produced by a single turn. Justify it.

**Answer/Explanation**

Answer:  
Explanation:  
This is because the current in each circular turn has the same direction, and the field due to each turn then just adds up along the axis of the coil.  


85. The diagram shows a coil of wire wound on a soft iron core forming an electromagnet. A current is passed through the coil in the direction indicated by the arrows. Mark the N and S poles produced in the iron core.

**Answer/Explanation**

Answer:  
Explanation:  
Using clock face rule A is South pole. B is North pole.

86. How will you determine the direction of the magnetic field due to a current-carrying solenoid?

**Answer/Explanation**

Answer:  
Explanation:  
Direction of magnetic field: Imagine the current carrying solenoid in your right hand such that the curled fingers are in the direction of current, then the extended thumb will indicate the direction of emerging magnetic field line, i.e. the face of solenoid which has North polarity.

87. What will the polarity be of one end of a solenoid if the current appears to be flowing anticlockwise in it ?

**Answer/Explanation**

Answer:  
Explanation:  
North pole by using Clock Face Rule.

88. Magnetic field inside the solenoid is uniform or non-uniform?

**Answer/Explanation**

Answer:  
Explanation: Uniform

89. State important features of the magnetic field obtained inside the solenoid. Write one use of solenoid.

**Answer/Explanation**

Answer:  
Explanation:  
The field lines inside the solenoid are parallel and closely spaced showing the field is highly uniform, same in strength at all the points and in the same direction.  
Solenoid is used for making electromagnet.

90. Give one difference between the wires used in the element of an electric heater and in a fuse.

**Answer/Explanation**

Answer:  
Explanation:  
Electric wire used in electric heater has a high melting point whereas fuse wire has a low melting point.

91. A magnet is hung using a string. How will you identify the poles?

**Answer/Explanation**

Answer:  
Explanation:  
The north seeking pole is north pole and the south seeking pole is south pole.

92. What is the colour of wire conventionally used for (i) Live, (ii) Earth and (iii) Neutral?

**Answer/Explanation**

Answer:  
Explanation:  
(i) Red, (ii) Green (iii) Black.

Fill in the Blanks

1. The magnetic field of a solenoid carrying a current is similar to that of a ……….. .  
2. The direction of the induced current is given by ………..  
3. A generator converts ……….. into ……….. .  
4. In our houses, we receive AC electric power of ……….. V with a frequency of ……….. Hz.  
5. The direction of magnetic force acting on a charged particle moving in a magnetic field can be found by ……….. .  
6. According to Fleming’s left hand rule, if the first finger points in the direction of ……….., the second finger  
in the direction of ……….., then the thumb will point in the direction of ……….. .

Answers

1. bar magnet  
2. Fleming’s right hand rule  
3. mechanical energy, electrical energy  
4. 200 V, 50 Hz  
5. Fleming’s left hand rule  
6. magnetic field, current, force acting on the conductor