1) Magnetic fields are produced due to
   A. Stationary charges
   B. Moving charges √
   C. Both a and b
   D. None of the above

2) 1 Gauss =
   A. 10⁴ Tesla
   B. 1000 Tesla
   C. 10⁻⁴ Tesla √
   D. None of the above

3) The magnetic field density along the axial line of a circular coil carrying current
   A. Zero
   B. Constant
   C. Varies with distance from the center of the coil √
   D. None of the above

4) In magnetostatics, the magnetic field generated by a steady current is given by
   A. Biot-Savart’s √
   B. Law Lenz’s Law
   C. Faraday’s Law
   D. Ohm’s Law

5) The magnetic field developed at different points on the axial line of a circular coil is
   A. Directly proportional to the current √
   B. Inversely proportional to the current
   C. Independent of the current
   D. Directly proportional to the square of the current

6) What is the nature of the magnetic field inside current carrying loop?
   A. randomly in all directions
   B. all in one direction √
   C. all fields cancel each other (no magnetic field)
   D. none of the above

7) The functioning of an electric motor is based on
   A. thermal properties of a wire
   B. magnetic effect of a permanent magnet
   C. magnetic effects of current
   D. none of the above

8) The loops in the conductor repel each other when current is passed through them.
   A. depends on the type of current
   B. (AC/DC) depends on the radius of the loops
   C. true
   D. false √

9) Which of the following about a magnetic field is correct?
   A. The unlike magnetic poles repel.
   B. A magnetic pole can be isolated.
   C. The magnetic field lines indicate the direction of force. √
   D. A magnetic pole cannot induce magnetic poles in other materials.

10) Amit attaches one end of a string to a steel paper clip and the other end to a table. The string is very light. He then uses a magnet to attract it so the clip seems to float in air. However, when she lifts the magnet, the paper clip falls. What is the reason for this?
    A. The potential energy of the clip decreases.
    B. The gravitational force near the magnet increases.
    C. The magnetic properties of the clip decreases.
    D. The magnetic field strength near the clip decreases √
11) A rod P is hung on a string and then another rod Q is brought near it. P and Q attract each other. Which of the following statements is correct?
   A. P must be a magnetic object.
   B. Q must be a magnetic object.
   C. Both P and Q must be magnetic objects.
   D. It is possible that P and Q both are magnetic objects or only one of them is. √

12) A piece of metal can be deduced to become a magnet if
   A. both ends of a compass needle are attracted to it.
   B. a magnet is attracted to it.
   C. one end of a compass needle is repelled by it. √
   D. copper wire is repelled by it.

13) Which of the following statements describes an example of induced magnetism?
   A. A bar magnet, swinging freely, comes to rest pointing North-South.
   B. A bar magnet loses its magnetism if it is repeatedly dropped.
   C. A bar magnet attracts a piece of soft iron. √
   D. It is hard to magnetise steel, but easy to magnetise soft iron.

14) A metal bar X-Y hung by a thread always settles in no definite direction. Another bar P-Q of the same metal always comes to rest with end P pointing North. What is the result if the two bars are brought near one another?
   A. P attracts X but repels Y.
   B. P neither attracts nor repels X.
   C. P attracts X but Q repels Y.
   D. P and Q both attract X. √

15) Which of the following is suitable to be used for the needle of a plotting compass?
   A. Brass
   B. Copper
   C. Iron