St. Lawrence High School

A Jesuit Christian Minority Institution

Term : Test

Work Sheet – 2

Class – X | Subject – Physical Science | Date – 09.11.20

Chapter – Current Electricity | Topic – Magnetic effect of current

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Choose the correct option for the following questions. $1 \times 15 = 15$

1. Looking perpendicular on a loop from one side, the current is found to be clockwise, then –
   a. N pole will be generated on that side of the coil
   b. S pole will be generated on the opposite side of the coil
   c. N pole will be generated on the opposite side of the coil
   d. None of these

2. Looking perpendicular on a loop from one side, the current is found to be anti clockwise, then –
   a. N pole will be generated on that side of the coil
   b. S pole will be generated on that side of the coil
   c. N pole will be generated on the opposite side of the coil
   d. None of these

3. If N pole of a magnetic needle is repelled by a circular loop, then the current at that face of the loop can be –
   a. Clock wise only
   b. Anti clockwise only
   c. Both Clock wise or Anti clockwise
   d. None of these

4. If S pole of a magnetic needle is attracted by a circular loop, then the current at that face of the loop can be –
   a. Clock wise only
   b. Anti clockwise only
   c. Both Clock wise or Anti clockwise
   d. None of these

5. The motion of a coil of a d.c. motor obeys, -
   a. Ampere's swimming rule
   b. Right hand thumb rule
   c. Fleming's right hand rule
   d. Fleming's left hand rule

6. Electric motors work under the principle of –
   a. Electromagnetic induction
   b. Fleming's right hand rule
   c. Lenz's law
   d. Conversion of electrical energy to mechanical energy

7. The armature of the motor experiences
    a. A net force and a net torque both
    b. A net force but not a net torque
    c. No net force but a net torque
    d. Neither a force nor a torque

8. The rotating speed of the armature of a motor can be increased by –
    a. Increasing current through it
    b. By increasing the number of turns of armature coil
    c. By increasing the pole strength of the magnets
    d. All of above

9. In a dc motor, if we reverse the current, then
    a. Armature will rotate in opposite direction
    b. Armature will stop rotating
    c. There will be no change
    d. After every half cycle the armature will change the direction of rotation

10. In Fleming's left hand rule, thumb indicates –
    a. Direction of current
    b. Diection of magnetic field
    c. Direction of force on conductor
    d. All of the above

11. In Fleming's left hand rule, which finger indicates direction of magnetic field?
    a. Thumb
    b. Fore finger
    c. Middle finger
    d. Any one of these

12. If a current carrying wire produces magnetic field, then can it attract or repel anther current carrying wire?
    a. Yes
    b. no
    c. it may do so only if both are iron wires.
    d. none of these

13. When can a copper wire be deflected by magnetic pole?
    a. When brought near the pole
    b. Copper wire can never be deflected by magnet
    c. When brought near the pole and it carries a current
    d. none of these

14. A current carrying loop produces –
    a. Only a S pole
    b. Only an N pole
    c. Both the poles on the either sides of it
    d. None of these

15. Which one of the following will behave as a short bar magnet?
    a. A very long straight current carrying wire
    b. A revolving electron
    c. A circular current carrying loop
    d. both b. and c.

Name of the teacher – Soumitra Maity