



TEST PAPER: MATHEMATICS

Time: 50 Minutes

Class: 8th I.C.S.E.

Max. Marks: 30 Marks

Date: 4th April, 2018

Marking Scheme: Three questions carry 10 marks each. Question 1 has 10 MCQ's of 1 mark each. Questions 2 and 3 have 3 subparts each. Subparts (a) and (b) carry 3 marks each and subpart (c) carries 4 marks.

Question 1:

Tick (✓) the most appropriate answer.

- The magnetic south pole of earth is situated near:
(a) geographic south pole (b) geographic north pole
(c) geographic east (d) geographic west
- When a straight conductor carrying current is held over a magnetic needle, such that current flows from north to south then north of needle points towards:
(a) East (b) West (c) North (d) South
- The direction of magnetic lines of force around a straight conductor, pointing vertically downward, such the current flows in vertically upward direction is:
(a) clockwise
(b) anti-clockwise
(c) at one end clockwise and other end anti-clockwise
(d) none of these
- The core of transformer is made of:
(a) soft iron (b) steel (c) copper (d) aluminium
- When an uncharged conductor gets electrically charged when brought near a charged body the process is called
(a) conduction (b) convection (c) induction (d) none of these
- When a glass rod is rubbed with silk, both glass rod and silk :
(a) acquire equal and similar charges
(b) acquire equal and opposite charges
(c) acquire unequal and similar charges
(d) acquire unequal and opposite charges
- The strength of magnetic field in a solenoid will be maximum, if it has:
(a) 100 turns (b) 75 turns (c) 5 turns (d) 20 turns
- The mechanical energy produced in an electric motor will be maximum, if the current flowing through its coil is:
(a) 2 ampere (b) 12 ampere (c) 6 ampere (d) 8 ampere
- A freely suspended magnetic needle always came to rest in:
(a) north-east direction (b) north-west direction
(c) north-south direction (d) south-west direction
- An electric device used to stabilise voltage is:
(a) dynamo (b) transformer (c) voltmeter (d) ammeter

Question 2:

- Draw a neat and labelled diagram of an electric bell. [3]
- What is an electroscope? Draw a neat diagram of gold leaf electroscope. [3]
- How can you increase the strength of an electromagnet? State four ways. [4]

Question 3:

a. Fill in the blanks:

1. Magnetic poles always exist in _____.
2. The degree of induced magnetism is directly proportional to the _____ of inducing magnet.
3. _____ is the phenomenon related to attractive and directive properties of magnets.
4. Producing magnetism in an unmagnetised material by placing a magnet closer to it is called _____.
5. A long coil made up of a number of turns of an insulated wire is called _____.
6. A coil wound over a soft iron piece is usually called an _____.

[3]

b. (a) State the charge present on the glass rod and silk when rubbed with each other

[3]

(b) State the charge present on the ebonite rod and cat's skin when rubbed with each other.

c. (a) What is the principle of electric generator?

[4]

(b) What kind of energy is used in it?

(c) Draw a neat and labelled diagram of a generator.