

Assignments ✓

1. Cyclotron is used to accelerate some kind^{of} charged particle

So correct option is (a).

2. The force that accelerates the particle in the cyclotron is both electrostatic and magnetic force called Lorentz force.

So correct option is [C].

3. Correct option is [a]

conductor shields any charge within it from electric field created outside the conductor.

4.

5. The formula for maximum speed attained by a charge particle in a cyclotron is $V_{max} = \frac{qR}{Bm}$

Correct option [C]

6) In a cyclotron max. speed attained by a charged particle is limited by the relativistic variation of mass with speed.

Correct option [b]

7)

1) Galvanometer was named after Italian electricity researcher
Guglielmo Galvani.
Correct option [a]

2) Galvanometer is used to detect and measure small electric currents.
Correct option [a]

3) The correct option for current sensitivity of galvanometer is
$$S_i = \frac{\theta}{i} = \frac{NBA}{C}$$
 Correct option [a].

4) Increasing the current sensitivity never increases voltage sensitivity.
Correct option - [c].

5) Correct option for design formula of galvanometer, none of these
option - [d]

6) In galvanometer the radial magnetic field makes the
magnetic torque zero.
Option - [c]

3) 1) Correct option [a] Both Assertion and reason are true
and reason is correct explanation of Assertion

2) Both correct explanation [a]. Both Assertion and reason are
correct and reason is correct explanation of Assertion

Every current element on the irregular shape wire having
symmetric element carrying current in opposite direction
is causing repulsion

3) Connect option [d]

Both assertion and reason are true.

4) Connect option [b]

Both assertion and reason are true. But reason is not a correct explanation of the assertion.

5) Connect option [a]

Both assertion and reason are true and reason is correct explanation of assertion.

Galvanometer is a very sensitive device it gives, it gives a full scale deflection for current of the order of micro-ampere.

4) MCA

1) Connect option [d] an ammeter is connected in series in a circuit and the current through it is negligible.

2) The resistance of an ideal voltmeter is infinity connect option [c].

3) Two identical galvanometers are converted into an ammeter and a milliammeter. Resistance of the shunt of milliammeter through which the current passes through will be more.

Connect option [c]

4) The correct explanation for design formula of galvanometer is none of these

Connect option [d]

5. Connect option for current sensitivity of galvanometer

$$S = \frac{D}{i} = \frac{NBA}{C}$$

Connect option [a]