



Name of Student	Class	Subject	Board	Chapter
	10 th	Physics	FB	06
Date : _____	Objective			Teacher Remarks
Section - A				

Q. No.1:- Circle the correct option. Each part carries one mark.

01	Which statement is true about the magnetic poles?						
a	Unlike poles repel	b	Like poles attract	c	Magnetic poles do not effect each other	d	A single magnetic pole does not exist
02	What is the direction of the magnetic field lines inside a bar magnet?						
a	From north pole to south pole	b	From south pole to north pole	c	From side to side	d	There are no magnetic field lines
03	The presence of a magnetic field can be detected by a:						
a	Small mass	b	Stationary positive charge	c	Stationary negative charge	d	Magnetic compass
04	If the current in a wire which is placed perpendicular to a magnetic field increases, the force on the wire:						
a	Increases	b	Decreases	c	Remains the same	d	Will be zero
05	A.D.C. motor converts:						
a	Mechanical energy into electrical energy	b	Mechanical energy into chemical energy	c	Electrical energy into mechanical energy	d	Electrical energy into chemical energy
06	Which part of a D.C motor reverses the direction of current through the coil every half- cycle:						
a	The armature	b	The Commutator	c	The brushes	d	The slip rings
07	The direction of induced e.m.f. in a circuit is in accordance with conservation of:						
a	Mass	b	Charge	c	Momentum	d	Energy
08	The step-up transformer:						
a	Increases the input current	b	Increases the input voltage	c	Has more turns in the primary	d	Has less turns in the secondary coil
09	The turn ratios of a transformer is 10. It means:						
a	$I_s = 10I_p$	B	$N_s = N_p/10$	c	$N_s = 10N_p$	d	$V_s = V_p \times 10$
10	Simple coil placed in a magnet cannot rotate more than:						
a	80°	b	70°	c	75°	d	90°
11	In step up transformer:						
a	$V_s > N_s$	b	$V_p > V_p$	c	$V_s > V_p$	d	$V_s > N_p$
12	Which is an electric switch that opens and closes under the control of another electrical circuit:						
a	Relay	b	Electric bell	c	Electric circuit	d	A.C Generator



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Section – B

Q. No.2:- Attempt any eleven parts from the following. The answer of each part should not exceed 3 to 4 lines.

- What is MRI?
- What is an electromagnet?
- Define DC motor and AC generator?
- What is credit card and magnetic strips?
- What is armature and filed coil?
- How force acting on armature is increased?
- Magnitude of induced emf in a circuit depends upon?
- What is relation between generator and hydroelectric dam?
- Define mutual induction?
- What are metal detectors?
- Define transformer and list its types?
- What happens when electric current passes through the soft iron core?
- What do you know about Michael faraday?
- What do you know about discovery of Joseph henry?
- Why doctor use MRI?

Q. No.4:- Attempt any TWO questions. All questions carry equal marks:

(2×10=20)

Q. No.1:- (a).What is an electric motor? Explain the working principle of D.C motor.

(b).A transformer is needed to convert a mains 240 V supply into a 12 V supply. If there are 2000 turns on the primary coil, then find the number of turns on the secondary coil.



CLASSIC STUDY

DIGITIZING YOUR WAY

Q. No.2:- (a). Draw a labelled diagram to illustrate the structure and working of A.C generator.

(b). A step-up transformer has a turn ratio of 1:100. An alternating supply of 20 V is connected across the primary coil. What is the secondary voltage?

Q. No.3:- (a). What is a transformer? Explain the working of transformer in connection with mutual induction.

(b). A step-down transformer has a turns ratio of 1:100. An AC voltage of amplitude 170 V is applied to the primary. If the current in the primary is 1.0 mA, what is the current in the secondary?