

TSINSETA LEMARIAM SENIOR SECONDARY SCHOOL

PHYSICS GRADE 12th QUESTON AND ANSWER TEST 2017 E.C TIME - 25min

NAME.....GRADE & SECTION Roll No.....

PARTI; CHOOSE THE CORRECT ANSWER FROM THE GIVEN ALTERNATIVE

1. A coil of wire is placed in uniform magnetic field. what orientation of the loop will the magnetic flux becomes zero.

- A. When the field lines are perpendicular to area**
- B. When the field lines are parallel to the area**
- C. When the field lines are either parallel or perpendicular**
- D. Magnetic flux does not depend on the angle**

2. Which one of the following is not property of magnetic field lines.

- A. Magnetic field lines never interest**
- B. Magnetic field lines form a closed loop**
- C. Direction of the magnetic field is tangent to the lines**
- D. Magnetic field line starts from Positive and terminate at negative**

3. Which law represents the magnitude of the magnetic field around a current carrying wire is proportional to the current through the wire.

- A. Lenz's law**
- B. Kirchhoff's law**
- C. Ampere's law**
- D. Faraday's law**

4. The magnitude of the magnetic field at a point P 40cm from the center of the wire is $8 \times 10^{-6} \text{T}$ what current flowing in the wire? ($\mu_0 = 4\pi \times 10^{-7} \text{Tm/A}$)

- A. 16A**
- B. 1.6A**
- C. 0.16A**
- D. 0.016A**

5. Which one of the following is not property of magnetic field on a current carrying conductor.

A. The change in the direction of current reverse the direction of field lines

B. The field is stronger near the wire and weaker far away

C. The field strength increase when the distance from the wire increase

D. The field strength decrease when the current decrease

6. What is the magnetic field strength inside solenoid of length 20cm with 100 turns and current of 2A.

A. $2.5 \times 10^{-3} \text{T}$

B. $5 \times 10^{-2} \text{T}$

C. $4\pi \times 10^{-4} \text{T}$

D. $4\pi \times 10^4 \text{T}$

7. When an electric charge is in motion produces

A. Electric field only

C. Both electric and magnetic field

B. Magnetic field only

D. Neither electric field nor magnetic field

8. Which one is correct about magnetic field

A. Exerts a force if the charged particle is moving along the magnetic field lines

B. Never exert a force on a charged particles

C. Always exert a force on a charged particle

D. Exerts a force if the charge particles is moving across the magnetic field lines

9. The magnetic field at a distance r from a long wire carrying current I is 0.6T, what will be the magnetic field strength at a distance of $3r$?

A. 5.4T

B. 0.3T

C. 1.8T

D. 0.2T

10. The magnitude of the magnetic field strength at the center of solenoid may be decreased by;

A. Increasing the current

C. Increasing number of turns-

B. Inserting Soft iron

D. Increasing length

11. Lenz's law is the consequence of conservation of ?

A. Mass B. Momentum C. Energy D. Charge

13. What is the function of set up transformer.

A. To increase the power C. To decrease the voltage

B. To decrease the power D. To increase the voltage

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