

CIT:134 Electronics-1(Paper A)

Model Paper-1

Objective

Time:30 Min

Marks:15

Q. Encircle the correct answer.

1. The central part of atom is
 (a) Electron (b) proton (c) neutron (d) nucleus
2. The unit of potential is
 (a) current (b) ampere (c) volt (d) ohm
3. A conductor is a material that conducts electrical current
 (a) Easily (b) swiftly (c) sharply (d) fastly
4. The opposition offered to free electrons is called----
 (a) Conductance (b) current (c) torque (d) resistance
5. According to ohm's law the resistance is directly proportional to the----- of conductor
 (a) Width (b) breath (c) thickness (d) length
6. Magnetic field is always mapped out in the form of magnetic
 (a) strength (b) lines of force (c) area (d) width
7. Magnetic lines of force always travel from
 (a) Horizontal. (b) Vertical (c) north to south (d) South to north
8. When electricity is passed through a solenoid it becomes
 (a) conductor (b) magnet (c) inductor (d) insulator
9. The study of behavior of the charges when they are at rest is called
 (a) electricity (b) magnetism (c) electrostatic (d) thermal
10. A simple parallel plate capacitor consists of plates
 (a) Two. (b) Three. (c) Four. (d) Six
11. Electrolytic capacitors are also called----- capacitors
 (a) metal (b) ceramic (c) composite (d) polarized
12. Capacitor uses a material as separator
 (a) inductor (b) capacitance (c) dielectric (d) charge
13. The polarity of an AC waveform reverses every cycle
 (a) One (b) half (c) three (d) four
14. A pure inductor or capacitors dissipates -----power
 (a) Low (b) high (c) no (d) moderate
15. The unit of current is
 (a) Ohm (b) ampere (c) Volt (d) Coulomb

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Model Paper-1

Subjective

Time: 2:30 Min

Marks:60

Section. I

Q.1 Write short answer to any eighteen (18) of the following questions

18 X 2 =36

1. Describe structure of an atom.
2. Define energy shells.
3. Describe valence electrons.
4. Define current with its unit.
5. Define ohm's law.
6. Define conductor.
7. Explain temperature coefficient of resistance.
8. Describe the resistance in parallel.
9. Define flux.
10. List the types of magnetic material.
11. Define inductor.
12. Define lenz's law.
13. Describe Coulomb's law.
14. Describe electric field strength.
15. What is capacitor?
16. Define electric flux.
17. Describe alternating current.
18. Define sine wave.
19. Define cycle.
20. Describe wavelength.
21. Define period.
22. Describe effect of temperature on resistance.
23. Describe energy levels.
24. Describe laws of resistance.
25. Define KVL.
26. Define self-inductance.
27. Define electrostatics.

Section. II

Attempt any three (3) questions

3 X 8 = 24

Q.2 Explain, wave form, phasor diagram, impedance triangle and time constant of AC through RL series circuit

Q.3 Write short notes on the following

- (i) Magnetic field around a current carrying conductor
- (ii) Properties of electric lines of force

Q.4 Compare primary and secondary cell. Explain nickel cadmium cell.

Q.5. Calculate equivalent resistance of the circuit

5.(a) State current division rule

(b) Two resistance 6 ohms and 12 Ohm are connected in parallel across a source having 6 ampere using current division rule find amount of current through each resistor.

