QP CODE: 18103726

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Reg No : .....

Name : .....

B.Sc.DEGREE(CBCS)EXAMINATION, DECEMBER 2018

First Semester

Core Course - EL1CRT01 - BASIC ELECTRONICS

(Common to B.Sc Electronics and Computer Maintenance Model III, B.Sc Electronics Model III)

2018 Admission only

D9C11272

Maximum Marks: 80 **Time: 3 Hours**

Part A

Answer any **ten** questions.

Each question carries **2** marks.

1. State Coulomb's law.
2. What is magneto motive force?
3. State first law of electromagnetic induction.
4. Distinguish between true power and apparent power.
5. What is resonance curve?
6. Define (i) apparent power and (ii) reactive power in an ac circuit.
7. What is the use of transformer?
8. Sketch the V-I Characteristics of zener diode.
9. Write any two applications of a transistor.
10. Draw the symbol of N channel and P channel JFET.
11. Write down the intersnic standoff ratio equation of UJT.
12. What you mean by peak and vally point?

(10×2=20)

Part B

Answer any **six** questions.

Each question carries **5** marks.

13. How does a capacitor work?
14. Define resistance. What are the factors affecting resistance?
15. Explain A.C. through inductance alone.

16. What is power factor and how to improve it?

17. Explain the principle of operation of a Light Emitting Diode (LED).

18. Compare Si, Ge and GaAs diodes.

19. Compare between BJT and FET.

20. What is the difference between forward blocking mode and forward conducting mode?

21. Explain the working of SCR with two transistor model.

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **15** marks.

22. State and explain KCL and KVL with an example.

23. Draw the circuit diagram of a pn junction diode under forward and reverse bias and explain its operation. Discuss its V -I characteristics with necessary sketches.

24. Explain briefly about three configurations of a bipolar transistor.

25. Explain any one application circuit of SCR in detail.

(2×15=30)