E 8369 (Pages : 2) Reg. No.....

Name.....

B.Sc. DEGREE (CBCS) EXAMINATION, JANUARY/FEBRUARY 2018

First Semester

B.Sc. Physics—Model II—Applied Electronics

Vocational Course—ELECTRONIC APPLICATION

(2017 Admissions)

Time : Three Hours Maximum Marks : 60

Part A

Answer any **ten** *questions.*
Each carries 1 *mark.*

1. List the applications of CRO.
2. What is a tuning circuit ?
3. Explain low-pass filter.
4. Define Selectivity.
5. What do you mean by flyback time ?
6. Define a transducer.
7. What is Seebeck effect ?
8. What is Piezoelectric effect ?
9. List the soldering tools.
10. What are the differences between single sided and multilayer PCB ?
11. In what direction is data stored on a CD ? What are the important differences between recordable CD and DVD ?
12. What is a schematic layout ?

(10 × 1 = 10)

Part B

Answer any **six** *questions.*
Each carries 5 *marks.*

13. Describe about series and parallel resonant circuit.
14. Discuss briefly about digital multimeter.

Turn over

15. A RLC resonant circuit has a resonant frequency of 2 MHz and a Q-factor of 100. Calculate :
    (a) Band width of the circuit.
    (b) Lower and upper half power frequencies.
16. With a diagram, describe the illumination characteristic of the phototransistor.
17. Discuss briefly about thermistors.
18. Write a short note on LVDT.
19. How information is stored on the CD ?
20. Explain the method of fabrication of single sided PCB.
21. What are the applications of CD ?

(6 × 5 = 30)

Part C

Answer any **two** *questions.*
Each carries 10 *marks.*

22. (a) Explain in detail the principle of operation of a single trace CRO.
    (b) Draw the basic block diagram of an oscilloscope and explain the functions of each block.
23. Discuss the working principle of thermocouple.
24. Briefly explain optical recording on disc and play back process.
25. Distinguish between soldering and desoldering. What are different techniques used for soldering ?

(2 × 10 = 20)