E 6107 (Pages : 2) Reg. No.....

Name.....

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, NOVEMBER 2018

First Semester

Vocational Course—ELECTRONIC APPLICATIONS

(For Applied Electronics of B.Sc. Physics-Model II)

[2013—2016 Admissions]

Time : Three Hours Maximum Marks : 60

Candidates can use clark's tables and Scientific non-Programmable calculators.

Part A (Very Short Answer Type Questions)

Answer **all** *questions briefly.*
Each question carries 1 *mark.*

1. State the working principle of an insulator tester.
2. What is a function generator ?
3. What is the need in tuning circuits in radio receivers ?
4. State the features of time base signal.
5. What you mean by a transducer ?
6. List out the various applications of thermistor.
7. State the basic idea behind the compact disc.
8. What is meant by mother disc ?

(8 × 1 = 8)

Part B (Brief Answer Questions)

Answer any **six** *questions.*
Each question carries 2 *marks.*

9. State the salient features of a distortion factor meter.
10. Write a short note on audio signal generator.
11. State the conditions of resonance in parallel RLC circuit.
12. What is a band stop filter ? Explain.
13. What is meant by band width in radios ?
14. Explain the basic principle of a photo diode ?
15. What you mean by photo electric transducer ?
16. What is LVDT ?

Turn over

17. List the advantages of PCB.

18. Differentiate between son and consumer disc.

(6 × 2 = 12)

Part C (Descriptive / Problems / Short Essays)

Answer any **four** *questions.*
Each question carries 4 *marks.*

19. Sketch the block diagram of cathode ray oscilloscope and explain functions of each part.

20. Discuss resonance in parallel LCR circuit.

21. Explain the bootstrap sweep circuit and wave form.

22. Describe the construction, theory and working of a thermocouple.

23. Explain the different methods of optical recording of sound of films.

24. What are the different steps involved in development of PCB ?

(4 × 4 = 16)

Part D (Essay Type Questions)

Answer any **two** *questions.*
Each question carries 12 *marks.*

25. Discuss the measurement of electrical quantities using RLC Bridge.

26. Describe with theory the working of band pass and band stop filters.

27. Bring out the different types of time base circuits and features.

28. Discuss the reproduction of sound from films and its modifications.

(2 × 12 = 24)