QP CODE: 21102488

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) EXAMINATIONS, OCTOBER 2021

First Semester

B.Sc Physics Model II Applied Electronics

Vocational Course - AE1VOT02 - ELECTRONICS APPLICATION

2017 Admission Onwards

FE384C4C

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. What is meant by measurement?
2. What is the significance of a half digit in the case of digital voltmeter?
3. Write down the main characteristics of series resonance circuit.
4. Explain direct coupled circuit.
5. Explain triggered time base generator.
6. Explain passive transducers.
7. How does the resistance of an LDR change with light intensity.
8. State any two disadvantages of a thermocouple.
9. What are the advantages of CD Compared to magnetic recording discs?
10. What is the use of multilayer PCB?
11. What are the advantages of PCB?
12. How Dry solder joint occur?

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Explain the deflection system in a CRO?

14. What is a tuned transformer? Give its applications.

15. What do you mean by filter? Explain filters.

16. Explain the structure and working of a Photo diode.

17. Explain the working of a Linear Variable Differential transducer.

18. A piezoelectric crystal having dimensions of 2mm x 2mmx1mm and voltage sensitivity of 0.04Vm is used for force measurements. Calculate the force if the voltage developed is 60V.

19. Explain the method of fabrication of single sided PCB.

20. Describe soldering iron. What different shapes of tips are used for different applications?

21. What are the different Tools used for desoldering? Explain.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Explain single trace CRO with a neat Block diagram?

23. Draw the circuits of (i) Miller; and (ii) Bootstrap sweep generators using BJT and explain how each one gives linear sweep voltages, with the help of relevant waveforms.

24. Briefly explain optical recording on disk and playback process?

25. What are the tools used for soldering ? Write down the steps for soldering and desoldering.

(2×10=20)