QP CODE: 19103088

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Reg No : .....

Name : .....

B.Sc.DEGREE (CBCS) EXAMINATION, NOVEMBER 2019

First Semester

B.Sc Physics Model II Applied Electronics

Vocational Course - AE1VOT02 - ELECTRONICS APPLICATION

2017 Admission Onwards

45B1F498

Time: 3 Hours

Maximum Marks :60

Part A

*Answer any **ten** questions.*

Each question carries 1 mark.

1. Define the sensitivity of a digital voltmeter.
2. Give the applications of a tuned transformer.
3. What is critical coupling?
4. Draw the frequency response of LPF.
5. What is sweep speed error?
6. Draw a simple circuit of a current time base generator.
7. Explain Seebeck effect.
8. What is a microphone?
9. Which type of materials are used to make PCB?
10. What is the importance of PCB?
11. What is the main advantage of eutectic solder composition?
12. What is the difference between soldering and desoldering?

(10×1=10)

Part B

*Answer any **six** questions.*

Each question carries 5 marks.

13. Explain with a diagram how PMMC works as Multi meter.
14. Explain why you need a saw tooth voltage to display a sine wave on CRO screen. Explain how the display takes place.

15. An RLC series circuit consists of R=80 ohm, L=40 μH and C= 0.0783 pF. Find its (i) resonant frequency (ii) Q factor (iii) Bandwidth.

16. Explain how the constant collector current characteristics of a transistor can be used for the generation of a constant current sweep.

17. With necessary wave forms and circuit diagrams explain the working of Bootstrap sweep circuit.

18. Briefly explain the structure and working of a photo transistor. What are the advantages of a photo transistor over a photo diode?

19. How to prepare a layout of simple circuits?

20. What are the different Tools used for soldering?

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. With cross- sectional sketch of CRT explain its major components.What are the uses of CRO?

23. Explain the working principle of a piezoelectric transducer. Explain any one set up using such transducer to measure mechanical pressure. What are the merits and demerits?

24. With necessary block diagrams, explain the optical recording on CD. How it is read back and data reproduced?

25. With neat block diagrams, explain the method of fabrication of PCB. Also explain the steps to make a multilayer PCB.

(2×10=20)