

[This question paper contains 2 printed pages.]

Sr. No. of Question Paper : 8763

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Roll No.....

Unique Paper Code : 251504

Name of the Paper : ELHP-506 : Electronics Practical – X

Name of the Course : B.Sc. (H) Electronics, Part III  
(Amission of 2010 and onwards)

Semester : V

Duration : 1 Hour

Maximum Marks : 25

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt five questions from section A and ten questions from section B.
3. All questions in section A carry one mark each and all questions in section B carry two marks each.

**SECTION A**

1. Which filter is used for the generation of AM ?
2. How can the carrier frequency and frequency deviation be increased in FM ?
3. What is the commercial FM broadcast range of frequencies used ?
4. Define the shape factor of a receiver ?
5. Define temperature coefficient of resistance for a given material.
6. What is the direction of current in copper- iron thermo couple ?
7. Define co-efficient of self inductance.

*P.T.O.*

## SECTION B

8. What are the advantages and disadvantages of SSB over DSBFC ?
9. Explain the generation of an FM signal using a varactor diode.
10. When does diagonal clipping occur ? How can it be removed ?
11. Differentiate between an AM and an FM receiver.
12. An AM wave displayed on a CRO has the values of  $V_{\max} = 3.2$  v, and  $V_{\min} = 1.4$  v, as read from the graticule. What is the percentage of modulation ? Draw its trapezoidal pattern.
13. Compare an AM signal with a narrow band FM signal.
14. Discuss the main elements of a phase locked loop detector.
15. Define self inductance of a coil. On what factors does its value depend ?
16. What is thermo couple? What are its advantages ?
17. Draw the circuit diagram of an Anderson's bridge and give its bridge balance condition.
18. Explain Thomson and Seebeck effect.
19. What is the specific resistance? Is it same for all materials ?
20. Draw the I-V characteristics of a Solar cell.