PART - A 3 X 10 = 30

Instructions : (1) Answer **all** questions.

(2) Each questions carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Define the term 'noise'.

2. List the applications of medium frequency (MF) band of frequency spectrum.

3. Define modulation index of an AM signal.

4. Define pre-emphasis in FM.

5. List the merits of AM over FM.

6. What is low-level modulation?

7. Define fidelity of a radio receiver.

8. Define image frequency in radio receivers.

9. What is double-stub matching?

10. Define critical frequency.

PART - B   10 X 5 = 50

Instructions : (1) Answer any **five** questions.

             (2) Each question carries **ten** marks.

             (2) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Classify the various types of continuous wave modulation and sketch their waveforms.

12. Describe time domain and frequency domain representations of signal with diagrams.

13. (a) Explain the method of producing SSBSC.

     (b) List the advantages of SSBSC.

14. Derive time domain equation for FM signal.

15. Explain the operation of FM noise limiter with neat circuit diagram.

16. (a) List the basic functions of a radio receiver.

     (b) Describe the principle of heterodyning and superheterodyning in radio receivers.

17. Define polarization. Explain the different types of polarization.

18. Explain the parameters of a transmission line.

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