



Reg. No. :

Name :

**Eighth Semester B.Tech. Degree Examination, April 2014
(2008 Scheme)**

08.802 : RADAR AND TELEVISION ENGINEERING (T)

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions. **Each** question carries **4** marks.

1. Give the equation for doppler frequency.
2. Why a delay line is used in radar ?
3. What is the use of duplexers in radar ?
4. What is radio compass ? Explain briefly.
5. How do we fixed the scanning lines to 625 per frame ? Explain with equations.
6. Why VSB modulation is used picture signal ?
7. What are colour TV standard used globally ? Explain briefly.
8. What do you mean by QAM ?
9. Briefly explain the concept of LED TV.
10. What is DVB ? Explain.

PART – B

Answer **any two** questions from **each** Module. **Each** question carries **10** marks.

Module – 1

11. With a block diagram, explain the functions of a super heterodyne radar receiver.
12. What is MTI radar ? With appropriate diagram explain the working of an MTI radar.
13. With block schematic, explain the working of LORAN system.

**Module – 2**

14. a) What is interlaced scanning ? Explain.
b) Derive the expression for bandwidth of TV signal.
15. a) Explain how you generate EHT in TV receiver with a circuit diagram.
b) Explain how VSB correction is done in a TV receiver.
16. With an appropriate diagram, explain the working of a NTSC coder.

Module – 3

17. With appropriate diagrams, explain how a digital set top box is used for Digital TV broadcasting system.
 18. Explain how a cable TV provider, receives signal and distributes it to its customers spread across few kilometers. Develop a layout with associated equipments/ subsystems and illustrate its working.
 19. Write short notes on :
 - a) Digitization of video signal
 - b) MPEG 2
 - c) LCD TV.
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