



Reg. No. : .....

Name : .....

**Eighth Semester B.Tech. Degree Examination, April 2015**  
**(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. What is CW Radar ? Explain.
2. Explain the use of delay line canceller in Radar systems.
3. How do you provide a low noise front-end in radar receivers ?
4. What are marker beacons in navigation systems ?
5. Draw the frequency spectrum for VSB signal.
6. What is AGC ? In which part of the TV receiver, it is used ?
7. Briefly explain about SECAM.
8. How do you digitize a video signal ?
9. What is digital TV over IP ?
10. Compare the performance of LCD and LED TV.



**PART – B**

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

**Module – 1**

11. Derive an expression for the Radar equation with suitable assumptions.
12. Draw the block diagram of a Radar receiver and explain the functions of each block.
13. With an appropriate diagram, explain the working principle of an ILS for an air craft.

**Module – 2**

14. With neat sketch explain about the composite video signal for the Indian standard for TV broadcasting and mark the time periods.
15. Draw the block diagram of a PAL receiver and explain about each subsection.
16. a) Briefly explain about the sync separation circuit in a TV receiver.  
b) Explain how you separate sound in a TV receiver.

**Module – 3**

17. With a block diagram, explain how a digital TV signal is received through satellites.
18. Explain how OFDM technique is used for terrestrial digital TV. Illustrate with an appropriate diagram.
19. Write short notes on :
  - a) Compression of frames
  - b) Plasma TV
  - c) QAM.