

Question Bank (G Scheme)

Name Of Subject: ACS

Unit Test: II

Subject Code: 17656

Course: EJ6G

Semester: VI

Chapter 3: Radar System

8M

3 Marks

- 1) What is Radar Becons and state its application.
- 2) What are different types of antenna scanning in Radar and explain its.
- 3) Draw and explain A-scope radar display method.

4 Marks

- 4) Draw the block diagram of MTI radar and explain its working

Chapter 4: Satellite communication system

20M

3 Marks

- 5) Why uplink frequency is greater than downlink fequency .
- 6) Explain elevation, Azimuth and look angle of satellite .
- 7) Describe the term foot print and station keeping.

4 Marks

- 8) Explain the concept of Orbit and its types.
- 9) Draw and explain satellite sub system.

Chapter 5: Theory of Optics and Fundamental of Optical fiber

12 M

3 Marks

- 9) Define i) Acceptance angle ii) Critical angle
iii) Numerical Aperture iv) Snells law.
- 10) Compare single mode step index fiber and multimode step index fiber.

4 Marks

- 11) Give the advantage and disadvantages of optical fiber communication.
- 12) Explain block diagram of fiber optics communication system.
- 13) A silica optical fiber with a core diameter large enough to be considered by Ray theory analysis has a core refractive index of 1.50 and a cladding refractive index of 1.47. Calculate
i) Critical angle ii) NA of fiber iii) acceptance angle
- 14) Calculate the NA of fiber with core index $n_1=1.61$ and cladding index of 1.55

Chapter 6: Optical Communication System

16 M

3 Marks

- 15) Draw the construction and state working principle of LASER.
- 16) Draw the construction sketch of fiber optics cable and give it's Classification.
- 17) Comparison of step index and graded index fiber.

4 Marks

- 18) Draw and explain the block diagram of ODTR.
- 19) List out different types of splicing techniques? Describe any one.
- 20) Explain working principle of PIN Diode. State its application.
- 21) Describe Scattering and dispersion losses in optical fiber.
- 23) Compare between LED and LASER.
- 24) Draw the diagram of fusion splicing and V-Groove splicing technique.
- 25) Explain inter modal and intra modal dispersion.