

ACE

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(A) RADAR + NAVIGATION AIDS

- (1) What are the applications of RADAR?
- (2) Derive the RADAR range equation. What are the factors affecting the performance of RADAR?
- (3) Define Doppler effect?
- (4) Describe the operation of CW doppler RADAR?
- (5) What is MTI RADAR & where it is used?
- (6) Explain with neat diagram the working of pulsed radar system?
- (7) Explain Aircraft landing system briefly?
- (8) Draw and explain the block diagram of continuous wave RADAR system?
- (9) Explain the working of MTT RADAR with the help of block diagram?
- (10) Explain the concept of GPS system?

(B) SATELLITE COMMUNICATION

- (1) What is a satellite? Name a natural satellite & the first man-made satellite.
- (2) Explain the operation of Direct Broadcast Satellite system with a neat sketch?
- (3) Draw the block diagram of uplink, downlink, transponder & cross-link model. Discuss them in brief?
- (4) Explain MEO & LEO satellites?

- (7) Describe general structure of a satellite commⁿ system?
- (8) Define Geostationary orbit?
- (9) Explain & draw block diagram of satellite earth station?
- (10) Advantages & disadvantages of satellite communication?

(C) OPTICAL FIBER COMMUNICATION:-

- (1) Define Acceptance angle?
- (2) What are the adv. & disadv. of optical fibre over other metallic cables?
- (3) Explain the working of spread spectrum multiple access with a neat diagram & mention its advantages over other access techniques.
- (4) What is optical fiber? Explain different types of optical fiber?
- (5) Describe the principle of light wave propagation through optical fiber?
- (6) Define critical angle of an optical fibre communication system?
- (7) Name the different types of optical fibre configurations & explain them?
- (8) Explain the principle of working of optical fibre communication system in block diagram?
- (9) Explain the basic principles of LASER?
- (10) Explain the basic principles of propagation of light in the optical fibre?

Teacher's Signature

Describe the concept of EPABX. Name some additional facilities provided by EPABX.

Define Telephone Numbering plan. What are its types?

Discuss the operation of a PBX.

Write the units of power measurement?

Discuss the numbering plan of telephone networks?

Describe the function of Switching System & call procedure in Tele-communication system?

State evolution & fundamentals of mobile communication.

What are the advantages of a cellular system?

State the importance of national & International standardisation.

Describe the operation of Internet Protocol Telephone.

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