xv) What is phase focusing effect.

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.3 Show how a reflex klystron works.

Q.4 Explain structural characteristics of HORN Antenna.

Q.5 Explain tropospheric duct propagation. Give its application.

Q.6 With the help of block diagram, explain principle of working of MTI Radar.

Q.7 Draw the block diagram of a Satellite communication link, and explain its working.

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5th Sem. / Electronics & Comm.

Subject : Communication Engineering-II

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

Q.1 a) Define Beam width of an antenna.

b) Define an active Satellite.

c) What is height of Satellite above surface of earth.

d) Define Blind speed.

e) Write Radar range equation.

f) List any two multiple Access techniques.

g) What is dominant mode.

h) Define Faraday's law of rotation.

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i) Define a duplexer.

j) Write any two applications of FMCW radar.

k) What is second time Around echo.

l) Define troposphere.

m) What is frequency range of U.H.F.

n) If signal follows the curvature of Earth, which type of propagation it would be.

o) Write any two advantages of microwaves.

p) Name the frequency band used for Satellite communication.

q) Name the diagram used to show the bunching in microwave tubes.

r) Define Perigee.

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

Q.2 i) List different frequency bands.

ii) Why microwave tubes are designed, if we were already having vacuum tubes.

iii) What is thermionic emission.

iv) Write main features of GUNN diode.

v) What is relationship between cut-off and free space wavelength.

vi) Draw field configuration of TE_{20} mode.

vii) With the help of Structure, briefly explain working of magic tee.

viii) What are different terms related with direction coupler.

ix) What is troposcatter propagation.

x) What is a basic pulse radar.

xi) What is the role of transponder in satellites.

xii) What are different Link losses in satellites.

xiii) Draw the schematic of space wave propagation.

xiv) Draw a co-axial to wave guide adapter.

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