

Subject: Analog Communication

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Sem: V (CBCGS)

Q.P. Code 36641

- Q.1) a) Relationship between λ & freq. and thus antenna size — ②
Interference & its explanation — ③
- b) Definition of NBFM & WBFM — ③
Application — ②
- c) Reason for double spotting — ②
Explanation — ③
- d) Advantages (at least two) — $2\frac{1}{2}$
Disadvantage (at least two) — $2\frac{1}{2}$
- Q. e) Aliasing error with diagram — $2\frac{1}{2}$
Aperture ^{effect} with diagram — $2\frac{1}{2}$
- Q.2) a) List types of noise — ③
Explain at least three in detail — ⑦
- b) Define — ②
Equation — ②
Waveform — ②
Derivation for modulated wave ④
- Q.3) a) Generation with diagram & waveform ⑥
Demodulation with diagram & waveforms ④
- b) Delta modulation transmitter diagram and explanation — ⑥
Delta modulation receiver diagram & explanation — ④
- Q.4) a) Block diagram of Super heterodyne radio receiver ④
Explanation of each block — ⑥

- b) Define multiplexing — (2)
Need for multiplexing — (1) (02)
Explain FDM with diagram — (7) out of which,
For diagram — (3)

- Q.5) a) List FM generation methods (2)
Draw circuit of reactance modulator (4)
Explanation (4)

- b) What do you mean by VSB? (2)
Why we need it? (2)
Explanation with graph (2)
Application w.r.t. TV (4)

- Q.6) a) Diagram (2)
Explanation (3)

- b) Diagram (2)
Explanation (3)

- c) List applications & explain at least
two per application (2½)

- d) What do you mean by sampling (1)
List sampling techniques (1)
Explain each technique (½) + (½)

- e) Diagram (2)
Need — (1)
Explanation — (2)