AD-3286
Third Year B. Sc. (Sem. VI) Examination
March/April – 2015
Electronics : Paper - X
(Applications of Communication Systems)

Time : 2 Hours] [Total Marks : 50
Instructions :
(1)

(2) Figure on the right indicates full marks.
(3) All symbols and abbreviations have their usual meaning. [08]
(4) Non-programmable calculators are allowed.
(5) Q.1 is compulsory.
(6) Assume data if necessary.

1 Answer in short
   4×2=8
   (a) What do you mean by channel band width ?
   (b) Write the full form of AGC, AVC ?
   (c) Write the names of the different types of demodulators.
   (d) Write the importance of vestigial side band system communication.

2  (a) Why we need detection in communication ? Explain working of diode as detector in detail with fig.
   (b) Briefly explain function of mixer in SHR.  
   (c) In Broadcast SHR having a no RF amplifier, the loaded Q of the antenna coupling circuit is found to be 112 (at the input to the mixer) If the IF is 455kHz. Calculate the Image frequency and rejection ratio at 1200kHz.

OR

AD-3286] 1

[Contd...
2 (a) Explain the function of TV Receiver with block diagram. 9
   (b) Explain term (1) Vestigial Side Band System (2) composite video signal 5

3 (a) What is the function of demodulator in FM? Explain any one demodulator in detail. 7
   (b) Write Notes on: Vidicon 7

   OR

3 (a) What are the importance of RADAR range equation? Derive it. 8
   (b) A 8.36Ghz police RADAR measure a Doppler Frequency of 1932 Hz, From a car approaching the stationary police vehicle calculate the speed of the car. 3
   (c) What is TWT? 3

4 Write Short Notes: (ANY TWO) 14
   (1) Ratio Detector.
   (2) Principle of Color TV.
   (3) RADAR.
   (4) Multi cavity Klystron.