



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)

<p>नीचे दृशायेव निशानीवाणी विगतो उत्तरवही पर अवश्य लખवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : THIRD YEAR B. SC. (SEM. VI)</p> <p>Name of the Subject : ELECTRONICS : PAPER - X</p> <p>Subject Code No. : 3 2 8 6 Section No. (1, 2,.....): Nil</p>	<p>Seat No. : <input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/></p> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; width: 100%;">Student's Signature</div>
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- (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. 8

(b) Briefly explain function of mixer in SHR. 3

(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. 3

OR

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[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.
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