



HEG-003-1151002 Seat No. _____

M. Sc. (Electronics) (Sem. I) (CBCS) Examination

November / December – 2017

Foundation of Communication

Electronics : Paper - II

Faculty Code : 003

Subject Code : 1151002

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

1 Answer the following : (Any Seven) 14

- (1) Justify the relation between signal wavelength and signal frequency.
- (2) How analog signal is different than digital?
- (3) What are the requirements of transmitter?
- (4) How do you define detector efficiency?
- (5) What is mixer?
- (6) Explain the term intermodulation distortion.
- (7) Why and where is SSB transmission used?
- (8) What is QAM?
- (9) What is VSB transmission?
- (10) Explain the principle of AM detection.

2 Answer following: (Any Two) 14

- (1) What is modulation? Make it clear using different statements regarding this process
- (2) Write note on limitations of AM.
- (3) What are the other very important necessities of modulation?

- 3** Answer following : **14**
- (1) Explain flywheel effect of the tuned circuit.
 - (2) Write note on base modulation.

OR

- 3** Answer following : **14**
- (1) Write note on Bipolar Mixer.
 - (2) Write note on basic requirement of AM wave generation.

- 4** Answer following : (Any **Two**) **14**
- (1) Compare the three methods for SSB.
 - (2) Explain Balanced Modulator (DSBFC).
 - (3) Explain AM diode detector circuit.

- 5** Answer following : (Any **Two**) **14**
- (1) What is transmitter? What are the different sections of transmitting system?
 - (2) Draw a general block diagram for transmitter with proper labelling.
 - (3) Write note on Pilot Carrier.
 - (4) Write note on VSB Demodulator.
