



MBS-003-1274001 Seat No. _____

M. Sc. (ECI) (Sem. IV) Examination

April / May - 2018

Department of Electronics : Paper-13

(Advance Communication Electronics)

Faculty Code : 003

Subject Code : 1274001

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

[Total Marks : 70

Instructions :

- (1) Attempt all questions.
- (2) Make suitable diagram whenever necessary.
- (3) Figure to the right indicates full marks of questions.

1 Answer the following questions : (any **Seven** out of **Ten-2** **14** marks each)

- (A) Calculate the bit rate for number of input are 4 and having 1.544 Mb/s voice pcm is used for second level.
- (B) What is the transmission bandwidth of PAM/TDM channel ?
- (C) Explain.the concept of guard time.
- (D) Give the principle of Digital multiplexer.
- (E) Give methods of radio transmission.
- (F) Name the layers of OSI model in order.
- (G) What is Pager ?
- (H) Draw block diagram of PCM transmission path.
- (I) Explain how noise affect the PCM signal.
- (J) Define sampling and quantization.

- 2 Answer the following questions :
- (A) Explain PCM/TDM system 5
- (B) Explain TDM and FDM. 5
- (C) Explain performance criteria for cellular phones. 4
- OR**
- (C) Give drawback BPSK. 4
- 3 Answer the following questions : (7 marks each) 14
- (A) What is quantizer ? Give its types and explain its working principle.
- (B) What is digital multiplexer? Give its types and explain it.
- OR**
- 3 Write short notes on :
- (A) Architecture of GSM 5
- (B) Kepler's law of planetary motion 5
- (C) Disadvantages of DM 4
- 4 Answer the following questions : (7 marks for each) 14
- (A) Compare ASK, BPSK and PSK
- (B) Explain PCM with required block diagram.
- 5 Answer the following (any **Two** out of **Four**- 7 marks each) 14
- (A) What is PAM/TDM system ? Its principle and explain it with block diagram.
- (B) Give comparison between DM, ADM, PCM, DPCM.
- (C) Explain cellular Analog switching equipment.
- (D) Explain PCM receiver path with block diagram.