

TED	(15) -	5201
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TED (13) - 3201	Reg. No
(REVISION — 2015)	Signature

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2018

DIGITAL COMMUNICATION

[Time: 3 hours

(Maximum marks: 100)

PART — A

(Maximum marks: 10)

Marks

- Answer all questions in one or two sentences. Each question carries 2 marks.
 - 1. Define Quantization Error.
 - 2. Write demerit of MSK.
 - 3. Define Channel Capacity.
 - 4. List any two Error Control Methods.
 - 5. List any two advantages of PAM.

 $(5 \times 2 = 10)$

PART — B

(Maximum marks: 30)

- Answer any five of the following questions. Each question carries 6 marks.
 - 1. State and explain Sampling Theorem.
 - 2. Describe convolution interleaving code.
 - 3. List the advantages of GMSK.
 - 4. Write a note on Hamming Code.
 - 5. Explain Sliding window ARQ.
 - 6. Describe noises in Delta Modulation.
 - 7. Distinguish between synchronous and asynchronous data transmission.

(5x6 = 30)

P.T.O.





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		(Maximum marks: 00)	
		(Answer one full question from each unit. Each full question carries 15 marks.)	
		Unit — I	
III	(a)	Explain the working of DPCM system with neat block diagram.	10
	(b)	List the advantages of digital communication systems over analog systems. OR	5
IV	(a)	Explain with neat block diagrams, Delta Modulator Transmitter and Receiver.	12
	(b)	List the applications of Pulse Code Modulation.	3
		Unit — II	
V	(a)	Explain QPSK system and its spectrum.	10
	(b)	Draw the diagram of BFSK generator.	5
		OR	
VI	(a)	Explain BPSK system and its spectrum.	10
	(b)	Distinguish between QPSK and BPSK.	5
		Unit — III	
VII	(a)	Explain Shanon Fano algorithm.	8
	(b)	Describe about block interleaving code.	7
		OR	
VIII	(a)	Explain Error detection codes.	12
	(b)	List the limitations of FEC Codes.	3
		Unit — IV	
IX	(a)	Describe TDM.	10
	(b)	Write the function of guard bands in FDM.	5
		Or	
X	Wri	ite notes on : (i) Digital signature	
		(ii) Ciphers	

(iii) Full Duplex