

TED	(15)	-	3041
(REVI	KOIS		2015)

Reg. No.	
Signature	

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

COMMUNICATION ENGINEERING

[Time: 3 hours

(Maximum marks: 100)

PART - A

(Maximum marks: 10)

Marks

- I Answer all questions in one or two sentences. Each question carries 2 marks.
 - 1. Explain phase modulation.
 - 2. Define Skip Distance.
 - 3. Explain Critical Frequency.
 - 4. Define signal to noise ratio.
 - 5. Define Selectivity.

 $(5 \times 2 = 10)$

PART — B

(Maximum marks: 30)

- II Answer any five of the following questions. Each question carries 6 marks.
 - 1. Explain Space wave propagation.
 - 2. Explain Pulse amplitude modulation.
 - 3. Describe simple AGC with circuit diagram.
 - 4. Explain the need of Limiter circuit in FM.
 - 5. Describe the Need for modulation.
 - 6. Explain Refraction and Diffraction.
 - 7. Explain AFC with block diagram.

 $(5 \times 6 = 30)$



Marks

PART — C

(Maximum marks: 60)

(Answer one full question from each unit. Each full question carries 15 marks.)

		UNIT — I	
III	(a)	Explain Ground wave propagation.	8
	(b)	Explain the working of parabolic Antenna.	7
		OR	
IV	(a)	Draw different layers of ionosphere and explain it.	9
	(b)	Explain Folded dipole antenna.	6
		Unit — II	
V	(a)	Derive the expression for modulating index in AM.	6
	(b)	Explain the working of balanced modulator with circuit.	9
		OR	
VI	(a)	Derive the expression for an AM wave.	7
	(b)	Explain pulse code modulation Technique.	8
		Unit — III	
VII	(a)	Draw the block diagram of Direct FM transmitter and explain the function of each block.	9
	(b)	Explain De-emphasis and Pre-emphasis with necessary diagrams.	6
		OR	
VIII	(a)	Explain the working of AM transmitter with block diagram.	9
	(b)	Explain types of internal noise.	6
		Unit — IV	
IX	(a)	Explain the factors influencing the Choice of IF.	6
*	(b)	Explain the working of Super heterodyne receiver with block diagram.	9
		OR	
X	(a)	Explain the working of diode detector with circuit diagram.	6
	(b)	Explain FM receiver with Block diagram.	9