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Reg No.:_____ Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B.Tech Degree S7 (S, FE) Examination May 2024/ S3 (PT) (S,FE) Examination June 2024 (2015 Scheme)

Course Code: EE401

Course Name: Electronic Communication

Max. Marks: 100 Duration: 3 Hours

PART A

Answer all questions, each carries 5 marks. Marks

1		Write short notes on VSB. Where is it used?	(5)
2		What is the importance of Intermediate Frequency in a radio receiver?	(5)
3		Describe the advantages of Interlaced scanning?	(5)
4		Compare PAM, PWM and PPM.	(5)
5		What are the applications of FDMA.	(5)
6		What are the types of Optical Fibres?	(5)
7		Explain the working of GPS.	(5)
8		Describe the features of Zig-Bee technology.	(5)

PART B

Answer any two full questions, each carries 10 marks.

9	a)	Define AM. Derive the expression for AM signal and find the frequency components present in AM signal.	(7)
	b)	Compare AM and FM	(3)
10	a)	Explain Phase Shift Method for SSB generation.	(5)
	b)	Describe the operation of Balanced Slope detector	(5)
11	a)	Explain the working of Armstrong FM transmitter with a neat block diagram	(7)
	b)	How does image frequency affect the signal reception in a radio receiver	(3)

PART C

Answer any two full questions, each carries 10 marks.

12	a)	Explain the working of a camera tube with a neat diagram.	(5)
	b)	How PAM is generated using Flat top sampling?	(5)
13		Derive RADAR range equation	(10)
14	a)	Explain Pulse Code Modulation. Why do we need regenerative repeaters in PCM	(7)
	b)	Define sampling theorem.	(3)

PART D

Answer any two full questions, each carries 10 marks.

15 a) With a neat block diagram explain the working of a Fibre Optic Link (5)

b) Describe frequency Re-using Technique in cellular network. (5)

16 Write short notes on

i) Co-channel interference (5)

ii) Optical detectors (5)

17 Compare different Multiple Access (MA) techniques in detail (10)

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