Reg No.:_____   Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
B.Tech S7 (S) Exam Sept 2020

Course Code: EE401
Course Name: Electronic Communication

Max. Marks: 100   Duration: 3 Hours

PART A
Answer all questions, each carries 5 marks.

		Marks
1.	Define AM and derive the equation for AM wave.	(5)
2.	Explain with a neat sketch, the working of super heterodyne receiver.	(5)
3.	Draw and explain the block diagram of HDTV transmitter or receiver.	(5)
4.	Write short note on natural sampling and flat top sampling process in digital communication.	(5)
5.	Explain different types of optical fibre.	(5)
6.	Draw and explain the block diagram of earth station.	(5)
7.	Explain the architecture of Zigbee system.	(5)
8.	Explain with schematic, the architecture of Bluetooth.	(5)

PART B
Answer any two full questions, each carries 10 marks.

9. a) With the help of a block diagram, explain "phase shift method" of SSB (10)
    generation. Show mathematically how one of the sideband is cancelled in this
    method.

10. a) Compare and contrast between SSB and VSB. (5)

    b) Explain the operation of balanced slope detector. (5)

11. a) Explain the generation of FM using Armstrong method with suitable block (10)
    diagram.

PART C
Answer any two full questions, each carries 10 marks.

12. a) Explain the block diagram of monochrome TV receiver. (10)

13. a) Derive the radar range equation and mention factors affecting range of a radar. (5)

    b) Explain with diagram, different pulse modulation techniques. (5)

14. a) With neat sketches, explain the complete system of transmission and reception (6)
    of pulse code modulation.

    b) Differentiate between PAM, PWM and PPM (4)

PART D

Answer any two full questions, each carries 10 marks.

15 a) Explain CDMA satellite system with block diagram.   (10)

16 a) With block diagram, explain the working of an optical fibre communication   (5)
         system

    b) Differentiate between Wi-fi and Wi-max.   (5)

17 a) Explain different techniques to improve the capacity in cellular system.   (10)

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