PSCPHYT15.4 - Core (Elective-II) : Applied Electronics-II

P. Pages : 1   **GUG/W/22/11421**

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Time : Three Hours   Max. Marks : 80

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Notes :
1. All questions carry equal marks.
2. Assume suitable data wherever necessary.
3. Illustrate your answers wherever necessary with the help of neat sketches.

Either:

1.	a)	Explain the block diagram of digital system state sampling theorem and its applications in pulse code modulation system.	**8**
	b)	Discuss the effect of thermal noise in delta modulation.	**8**

OR

	e)	Explain the classification of pulse digital modulation technique with their unique features used in communication.	**8**
	f)	Discuss mathematical interpretation of noise. What is the effect of noise in PCM and demodulation?	**8**

Either:

2.	a)	Explain Poisson distribution protocol with CSMA.	**8**
	b)	Explain the digital multiplexing and multiple access concepts with TDMA.	**8**

OR

	e)	Explain the protocol for development of ARPNET, ISDN and LAN networking.	**8**
	f)	Explain the communication networking with their classification based on speed of data transmission.	**8**

Either:

3.	a)	Discuss clock generator (8284A)	**8**
	b)	Explain the functional block diagram of 8086 with pin configuration.	**8**

OR

	e)	Explain in detail memory paging.	**8**
	f)	Explain 1, 2, 3 byte instruction in arithmetic group, logical group and control transfer group instruction.	**8**

Either:

4.	a)	What is UART? Elaborate your answer with functional block diagram of UART.	**8**
	b)	What is interfacing? Explain the pins used in interfacing with 8255 PPI.	**8**

OR

	e)	Explain the interrupt structure and its expansion using 8259A PIC.	**8**
	f)	Discuss memory organization with their classification. How address bus and data bus selection configuration used in memory expansion.	**8**

5.		Answer all the following.	
	a)	Explain output signal to noise ratio in DM.	**4**
	b)	What is ALOHA and slotted ALOHA.	**4**
	c)	Comments on flag structure of 8086.	**4**
	d)	Differentiate between soft and hard interrupt.	**4**

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