Q. P. Code: 23732

Total Marks: 80   Duration: 3 Hrs

N.B.   1) Question no. 1 is compulsory
        2) Attempt any THREE questions out of the remaining FIVE questions.
        3) Assume suitable data wherever necessary.
        4) Figures to the right indicate Full marks.

Q. No.			Marks
Q.1		Attempt any FOUR questions out of the following questions.	
	a)	How many hosts per network in each class of IP address can exist? Show with example.	[5 Marks]
	b)	The Selective repeat ARQ is the most efficient protocol, explain.	[5 Marks]
	c)	Compare inband signaling and outband signaling.	[5 Marks]
	d)	What is the difference between network layer delivery & transport layer delivery?	[5 Marks]
	e)	Compare the peer to peer network & client-server network.	[5 Marks]
Q.2	a)	Explain different ARQ techniques.	[10 Marks]
	b)	Explain various transmission media in brief.	[10 Marks]
Q.3	a)	Explain Berkeley API.	[10 Marks]
	b)	Explain CSMA/CD & its use. What part of 802 Project uses CSMA/CD.	[10 Marks]
Q.4	a)	Draw the OSI layer architecture. Explain the function of each layer and show the path of actual & virtual communication between the layers.	[10 Marks]
	b)	Compare the following: i)TCP & UDP ii) Router & Switch	[10 Marks]
Q.5	a)	Draw a three-stage space division switch for N=20, n=5 & k=2 and estimate the number of cross point required. If the above switch is to be made non-blocking, derive an expression for the condition to be satisfied, also calculate the minimum cross point required for non-blocking.	[10 Marks]
	b)	What is DSL technology? Explain various DSL technologies & compare them.	[10 Marks]
Q.6	a)	With reference to HDLC protocol, explain the following; i)HDLC frame format ii)Data transfer modes iii)Different HDLC frames iv)importance of P/F bit v)Balanced & Unbalanced configurations	[10 Marks]
	b)	Write short note on- i)FDDI ii)FTP	[10 Marks]

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