M.E. Second Semester (Electronics & Tele.) (Full Time) (C.G.S.- New)
13347 : Elective-II : Optical Networks : 2 ENTC 5

P. Pages : 2

Time : Three Hours

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AW - 3911

Max. Marks : 80

Notes : 1. Due credit will be given to neatness and adequate dimensions.
2. Assume suitable data wherever necessary.
3. Illustrate your answer necessary with the help of neat sketches.
4. Use of pen Blue/Black ink/refill only for writing the answer book.

SECTION – A

1. a) Describe Multiplexing structure & Multiplexing Hierarchy.   7

   b) What is concatenation? Explain virtual tributaries.   6

OR

2. a) Explain brief history of SONET & SDH.   6

   b) Describe SONET Sublayers with its functions.   7

3. a) Describe Architecture of OTN.   8

   b) Describe Digital transport hierarchy.   5

OR

4. a) Describe SONET & SDH Multiplexing revised hierarchies.   7

   b) Explain OTN layered model.   6

5. a) Explain WDM & DWDM topologies.   7

   b) Explain line & path protection switching.   7

OR

6. a) Explain Non-negotiable requirement of robust networks.   7

   b) Describe span loss & Chromatic Dispersion.   7

SECTION – B

7. a) Explain MPLS nodes, distribution & Binding methods.   7

   b) Explain MPLS support of virtual private networks.   7

OR

8. a) Explain MPLS & Optical traffic Engineering.   7

AW - 3911   1   P.T.O

	b)	Describe the relationship between MPLS & Optical networking.	7
9.	a)	Describe Architecture of IP & MPLS based optical transport networks.	9
	b)	What is Link Management protocol.	4

OR

10.	a)	Describe the functions of Link Management protocol.	7
	b)	Explain Bidirectional LSP in optical network.	6
11.	a)	Describe function of LMP. LMP message.	7
	b)	What is procedure for message exchange during control channel management.	6

OR

12.	a)	Explain Label Switched Paths (LSP) & OSP.	7
	b)	Explain recovery & use of protection path.	6

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