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

P. Pages : 1

Time : Three Hours

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Max. Marks : 80

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

SECTION – A

1. a) Discuss the various layers of SONET architecture in detail. 7

   b) Explain SONET STS – 3 frame structure in brief. 6

2. a) What is ATM? Explain ATM signaling principle and ATM LAN Emulation in brief. 8

   b) Discuss how ATM builds a network. 6

3. a) Explain the major SONET / SDH network elements with neat sketch. 7

   b) Discuss in detail different WDM components. 6

4. a) Explain in detail TCP / IP architecture. 7

   b) Describe various Routers and switches used in optical networking. 7

SECTION – B

5. a) Discuss in detail various network management functions. 6

   b) Describe the various layer present in OTN with neat sketch. Also, give the key attributes of managed light path service. 7

6. a) Explain different types of protection techniques for point – to – point link in SONET / SDH. 9

   b) Discuss unidirectional path – switched ring (UPSR) in brief. 5

7. a) Explain the impact of transparency on performance and fault management. 6

   b) Discuss different types of optical layer overhead techniques with suitable schematic. 7

8. a) Explain in detail optical time division multiplexing. 7

   b) Discuss in brief broad cast – and – select packet switch and wavelength – routing packed switch used in KEOPS. 7

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