GANPAT UNIVERSITY
M.TECH. SEM. II -ELECTRONICS & COMMUNICATION ENGINEERING
REGULAR EXAMINATION, April - June 2015
3EC204 Optical Networks

TIME: 3 HRS   **TOTAL MARKS: 60**

Instructions: (1) This Question paper has two sections. Attempt each section in separate answer book.
　　　　　　　　(2) Figures on right indicate marks.
　　　　　　　　(3) Be precise and to the point in answering the descriptive questions.

SECTION-I

Que-1	**A**	What are the different scenarios for optical cross connect deployment? Draw and explain it.	5
	B	Define optical multicasting with example.	5

OR

Que-1	**A**	What is the difference between 1+1 OMS and 1+1 OCh protection schemes? Draw and explain both.	5
	B	Give difference between point to point WDM (PWDM) ring architecture and fully optical ring architecture. Discuss PWDM ring architecture in detail.	5

Que-2	**A**	Explain Path, span and ring protection switching in SONET. Discuss about span and ring switching in BLSR.	5
	B	Describe unslotted optical packet switched networks .	5

OR

Que-2	**A**	Explain the protection mechanism in Ring interconnection and Dual homing.	5
	B	Describe slotted optical packet switched networks .	5

Que-3	**A**	Draw and explain different reconfigurable OADM architectures.	5
	B	What is the role of optical line terminal in WDM network? Discuss this with necessary drawing.	5

SECTION-II

Que-4	A	Compare Just-In-Time and Just-Enough-Time algorithms.	5
	B	Describe different contention resolution methods for optical burst switched (OBS) networks.	5

OR

Que-4	A	What is the impact of traffic changes on a network using serial Optical Add/Drop Multiplexers?	5
	B	Give differences between optical packet switched networks (OPS) and optical burst switched networks (OBS).	5

Que-5	A	How Relative Capacity Loss (RCL) wavelength assignment algorithm is differ with Least loaded wavelength assignment algorithm ? Discuss RCL with necessary example.	5
	B	Write short note on storage area networks.	5

OR

Que-5	A	How Distributed Relative Capacity Loss (DRCL) wavelength assignment algorithm is differ with most used wavelength assignment algorithm ? Discuss DRCL with necessary example.	5
	B	Draw and explain 1:N protection switching .	5

Que-6	A	What is the meaning of unscheduled channel? Discuss different burst scheduling algorithms.	5
	B	Write short note on WDM network evolution.	5

END OF PAPER