Seat No. | | | | | | |

* 2 3 6 8 *

मुख - 013

Advanced Light Wave Communciation
(1030)

P. Pages : 1

Time : Three Hours **Max. Marks : 100**

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answersheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Solve **any five** questions from 1 to 8
5. Draw suitable diagrams wherever necessary.
6. Assume suitable data if necessary.
7. Figure to right indicates full marks.

1.	a)	How different components are selected for an optical fiber communication system.	**10**
	b)	Enlist the magneto optic devices. Explain any one in detail.	**10**
2.	a)	Describe fiber sensors for current & voltage measurement.	**10**
	b)	Explain the concept of analog & digital optical transmitter & receiver.	**10**
3.	a)	Explain the singnificance of an "Optical Amplifier". Enumerate the properties & applications of optical amplifiers..	**10**
	b)	Explain the dispersion compensation techniques.	**10**
4.	a)	Explain the heterodyne synchronous and non synchronous detection.	**10**
	b)	Give the brief idea about the Receiver sensitivity.	**10**
5.	a)	Explain the multiplexing techniques for multichannel light wave system.	**10**
	b)	Explain the LTD and RWA problems.	**10**
6.	a)	Explain the soliton based communication principles.	**10**
	b)	Explain WDM soliton system in detail.	**10**
7.	a)	Explain the SONET / SDH Rings in detail.	**10**
	b)	Explain the ESCON & HIPPI.	**10**
8.	a)	Explain single hop & multi hop networks in detail.	**10**
	b)	Explain the Microwave photonics in detail.	**10**

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