

Code :R5321104

R5

III B.Tech II Semester(R05) Supplementary Examinations, April/May 2011
LASERS & FIBER OPTICS IN MEDICINE
(Biomedical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

1. (a) Explain the characteristics of laser light.
(b) Write short on:
 - i. Q-switching
 - ii. Mode locking
 - iii. Optical activity
2. (a) Discuss the application of rigid endoscope in laparoscopy.
(b) Explain the technique of image transmission by fiber optic cable.
3. (a) What are laser photo coagulators and explain their function?
(b) List out the various causes for corneal ulcers.
4. (a) Discuss the various complications involved in laser surgery.
(b) Explain how the pigment of skin is related to the laser treatment.
5. What is the use of colonoscopy in Gastro-Intestinal Endoscopy.
6. Explain the use of laser in Angioplasty & Cardiology.
7. Explain the anatomy of human tooth with various problems associated with human tooth.
8. Give the MPE values of Exposure limits for the ocular and skin regarding the safety standards.
