

- Q.16 Explain electronic speech synthesizers.
- Q.17 Explain prosthetic knee.
- Q.18 Write a note on orthotic knee joint.
- Q.19 Explain FES system & its working..
- Q.20 Discuss myoelectric hand & its features.
- Q.21 Write a note on hybrid assistive system.
- Q.22 Explain prosthetics & orthotics waste management.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Explain optical character recognition.
- Q.24 Write a note on engineering concept in sensory rehabilitation.
- Q.25 Explain role of computer application in rehabilitation engg.

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4th Semester/ Medical Electronics Subject : Laser & Fiber Optics in Medicine

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

- Q 1 Laser beam is made of
- Highly coherent electrons
 - Highly coherent photons
 - Highly coherent phonons
 - None of them
- Q 2. The energy of photon is equal to
- $h\nu$
 - $(3/2)h\nu$
 - $h\nu/2$
 - None of them

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- Q3 The first laser was invented in May, 1960 by
- a) TH Maiman b) Maxwell
c) Einstein d) C. V. Raman
- Q4 The rate of spontaneous emission depends upon the number of atoms in the
- a) Ground state b) Excited state
c) Meta stable state d) None of the above
- Q5 Ruby laser is a solid state laser, the active medium is
- a) Crystalline substance
b) Non crystalline substance
c) Gaseous substance
d) None of the above
- Q6 In a semiconductor laser, electrical energy is directly converted to
- a) Light energy b) Sound energy
c) Heat energy d) Nuclear energy

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SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 Preventive Reahbilitation
Q.8 Imapirment
Q.9 Functional Diagnosis
Q.10 Myoelectricity
Q.11 Q-Angle
Q.12 Augmenatation

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 Write a note on role rehabilitation engineering in healthcare.
Q.14 Explain parallel force system.
Q.15 Write a note on visual Augmentation.

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