

III B.Tech II Semester Regular Examinations, Apr/May 2006
ERGONOMICS
(Bio-Medical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Define process control. Give an account of design of models. [16]
2. A fire station receives a call of fire accident from sixty kilometers away to extinguish fire at fifth floor in a complex. Answer the following.
 - (a) How does the fire fighting equipment reach?
 - (b) What type of dress should a fireman wear to prevent burns.
 - (c) How the fireman reach the place of fire. [16]
3. Give a design for cinema hall bearing in mind the comfort factor in all aspects audience. [16]
4. (a) What is audiometry ?
(b) How do we judge the levels of hearing in defective hearing? [16]
5. Define anthropometry. What are the factors to be considered while designing a tool room with anthropometric measurements as a guide? [16]
6. (a) Define LITHOTRIPSY.
(b) Describe how it is used in treatment of humans. [16]
7. Design a dental chair with its accessories? [16]
8. Design a control room and present its layout. [16]

III B.Tech II Semester Regular Examinations, Apr/May 2006
ERGONOMICS
(Bio-Medical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Define process control. Give an account of design of models. [16]
2. Draw out a design of computer room, their requirements. Compare and contrast between a computer operator and a typist. [16]
3. (a) Design a railway signal system for high-speed trains.
(b) In different environmental conditions. [16]
4. (a) What is audiometry ?
(b) How do we judge the levels of hearing in defective hearing? [16]
5. What do you understand by anthropometry ? [16]
6. (a) How do you explain tremors in hands ?
(b) List out the types of tremors in hands
(c) What mechanical apparatus will suit the worker with tremors ? [16]
7. Design a dental chair with its accessories? [16]
8. Give a layout of hospital with various facilities for a hundred bedded hospitals. [16]

III B.Tech II Semester Regular Examinations, Apr/May 2006
ERGONOMICS
(Bio-Medical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Define process control. Give an account of design of models. [16]
2. (a) Design a paraplegic (loss of movements in legs) to reach his work place from home.
(b) Movement at home [16]
3. Give a design for cinema hall bearing in mind the comfort factor in all aspects audience. [16]
4. (a) What do you understand by fatigue in humanbeings ?
(b) Suggest methods by which you can improve human performance bearing in mind fatigue . [16]
5. Describe in detail the factors required for a space craft. [16]
6. (a) How do you explain tremors in hands ?
(b) List out the types of tremors in hands
(c) What mechanical apparatus will suit the worker with tremors ? [16]
7. Design a dental chair with its accessories? [16]
8. Write the case study of control room layout with a neat sketch. [16]

III B.Tech II Semester Regular Examinations, Apr/May 2006
ERGONOMICS
(Bio-Medical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Define process control. Give an account of design of models. [16]
2. A fire station receives a call of fire accident from sixty kilometers away to extinguish fire at fifth floor in a complex. Answer the following.
 - (a) How does the fire fighting equipment reach?
 - (b) What type of dress should a fireman wear to prevent burns.
 - (c) How the fireman reach the place of fire. [16]
3.
 - (a) What is a bicycle Ergograph?
 - (b) What are the factors that you will take into consideration while designing an improved variety of a bicycle? [16]
4.
 - (a) What is audiometry ?
 - (b) How do we judge the levels of hearing in defective hearing? [16]
5. Describe in detail the factors required for a space craft. [16]
6.
 - (a) How do you explain tremors in hands ?
 - (b) List out the types of tremors in hands
 - (c) What mechanical apparatus will suit the worker with tremors ? [16]
7. Present the case study of wheel chair. [16]
8. Write the case study of control room layout with a neat sketch. [16]
