

M. Des. Examination, 2016
Specialized in Ceramic & Glass
Semester-I
Paper - MCG-I/02
(Ergonomics)

Time: 3 Hours

Full Marks: 80

Answer question no. 1, 7 and any three from the rest.

1. Answer **any four** questions 2x4=8
 - a. What is Human Factors?
 - b. Define stature.
 - c. Mention advantages of standing work position.
 - d. What is lordosis?
 - e. Define centre of gravity.
 - f. What is workspace?
2. What do you mean by ergonomics? Briefly discuss the social significance of ergonomics. 9+7=16
3. Define anthropometry. Discuss with suitable example the procedure for anthropometric design of a workstation. 4+12=16
4. What are the functions of the skeletal and muscular system? Briefly discuss the anatomy of spine related to posture. 6+10=16
5. Briefly discuss the factors affecting work capacity. 16
6. Define central tendency. What is normal distribution? Calculate the mean, median and standard deviation value from the following data set. 4+4+8=16

Table 1. Body surface area

196	101	184	227	235
185	217	122	336	148
114	233	198	109	235

7. Answer **any three** questions : 8x3=24
 - a. Oxenburgh productivity model
 - b. Tennis elbow
 - c. Modern ergonomics
 - d. Design of lifting tasks
 - e. The cardiovascular system
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