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Seventh Semester B.E. Degree Examination, Feb./Mar. 2022

Ergonomics

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Discuss briefly about the inclined desktop and trunk posture. (10 Marks)
- b. Briefly explain the erect or relaxed sitting posture. (10 Marks)

OR

- 2 a. Elaborate the metabolism of physiological principles. (10 Marks)
- b. Explain distribution of loads on discs. (10 Marks)

Module-2

- 3 a. Describe the maximal control of skilled movements. (10 Marks)
- b. Discuss about the recommendations for training and adaptation of the body with a neat diagram. (10 Marks)

OR

- 4 a. With a neat diagram, briefly explain about memory. (10 Marks)
- b. With a neat diagram, explain psychomotor tests and the performance of mental tasks. (10 Marks)

Module-3

- 5 a. Describe the experiments with stimulated repetitive tasks, with a neat diagram. (10 Marks)
- b. Discuss about flexible and continuous working. (10 Marks)

OR

- 6 a. Explain about food intake and biological rhythm. (10 Marks)
- b. With a neat diagram, explain the occupational sickness among night workers, the causes and symptoms. (10 Marks)

Module-4

- 7 a. With a neat diagram, explain controls and corresponding displays. (10 Marks)
- b. Discuss the control mechanism of visual system with a neat diagram. (10 Marks)

OR

- 8 a. Describe briefly about the illumination, luminance, reflectance, brightness and dimness. (10 Marks)
- b. Briefly explain about the colour in workplace. (10 Marks)

Module-5

- 9 a. Discuss briefly about the temporary loss of hearing, age-related hearing loss and the risk of hearing loss. (10 Marks)
- b. What are the guidelines for office noise? (10 Marks)

OR

- 10 a. Describe the side effects of discomfort and temperature zones in physiological terms. (10 Marks)
- b. What are the recommendations for comfort indoors? (10 Marks)