

**BACHELOR OF PHYSIOTHERAPY
EIGHT SEMESTER
ERGONOMICS
BPT – 804 [SPECIAL REPEAT]
[USE OMR SHEET FOR OBJECTIVE PART]**

Duration : 1.30 hrs.

Full Marks : 35

(PART-A: Objective)

Time : 15 min.

Marks : 10

Choose the correct answer from the following:

1 × 10 = 10

1. Physiological factors in Ergonomics are
 - a. Body tolerance, muscle strength and endurance, vision, hearing, coordination.
 - b. Tolerance to heat and cold, fatigue, muscle strength and endurance, vision, hearing.
 - c. Body tolerance, muscle strength and endurance, fatigue, vision, hearing, coordination.
 - d. None of the above
2. The principles of Ergonomics are intended
 - a. To improve the fit between worker and an activity.
 - b. To improve the fit among the workers.
 - c. To improve the fit of the worker.
 - d. None of the above
3. According to OSHA, Ergonomics is defined as
 - a. The people's efficiency in their work place.
 - b. The interaction between worker and their environment.
 - c. The study of work
 - d. The study to reduce workload.
4. When designing the workstation and tools, it should be such that it fits
 - a. The job to the worker
 - b. The worker to the job
 - c. The job for the worker
 - d. None of the above
5. The organization that mainly focuses on the changes required in a workplace in order to prevent disorder is (are)
 - a. IEA
 - b. OHSAS
 - c. NIOSH
 - d. All of the above
6. The scale used for assessing the posture is
 - a. RAMP
 - b. REBA
 - c. JSI
 - d. KIM
7. The main responsibility of ergonomic engineer is
 - a. Follow-up with the employee, occupational health nurse, physiotherapist and ergonomist
 - b. Ensure all employees are aware of the risk factors
 - c. Coordinate communication of changes in treatment to employee
 - d. Document and communicate needed workplace fixes

8. Anthropometry deals with the study of
- a. Body size, shape and energy expenditure
 - b. Body size, shape and structures of the body
 - c. Body size, shape, strength and capacity
 - d. None of the above
9. The lower leg length is measured from
- a. The foot-rest surface to the lower surface of the thigh (anterior)
 - b. The foot-rest surface to the lower surface of the thigh (posterior)
 - c. The foot-rest surface to the upper surface of the thigh (anterior)
 - d. The foot-rest surface to the upper surface of the thigh (posterior)
10. The goal of NIOSH is (are)
- a. Reduce occupational hearing loss
 - b. Reduce traumatic injuries
 - c. Improve workplace safety
 - d. All of the above

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(PART-B : Descriptive)

Time : 1 hr. 15 min.

Marks : 25

[Answer question no.1 & any two (2) from the rest]

1. Define work related musculoskeletal disorder. What are the various measures for the prevention of occupational diseases? 5
2. a) What are the effects of poor lighting and noise pollution to an individual in their work place? 5+5=10
b) Write a short note on the causes of low backache in the work place
3. a) Define ergonomics. Write the ergonomic advice to desktop operators 5+5=10
b) What prevention can be given in the case of person with vibration white finger (VWF)?
4. a) State the important components of an ergonomic chair 5+5=10
b) What is the importance of an adjustable chair and table?

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