REV-01
BPT/61/31/35

2025/06

SET B

BACHELOR OF PHYSIOTHERAPY
EIGHTH SEMESTER
ERGONOMICS
BPT – 804

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 1:30 hrs. **Full Marks: 35**

Objective

Time: 15 mins. **Marks: 10**

Choose the correct answer from the following: ***1×10=10***

1. Workstation analysis is primarily done to
   a. Reduce company costs
   b. Improve worker productivity and safety
   c. Design better furniture only
   d. Monitor employee behaviour

2. What is key to successful autonomous group implementation ?
   a. More micromanagement
   b. Employee training and communication
   c. Centralized decision making
   d. No feedback systems.

3. Which of the following best explains how flexible forms of work organization contribute to ergonomic benefits?
   a. By increasing the no. of hierarchial layers to ensure better tasks supervision
   b. By increasing strict, standardized working hours to reduce confusion and stress.
   c. By promoting autonomy and reducing commuting related physical and mental strain
   d. By mandating office presence to enhance team dynamics and reduce isolation

4. What is the recommended angle between the thighs and lower legs while sitting at a workstation?
   a. 30 degrees
   b. 75 degrees
   c. 45 degrees
   d. 90 degrees

5. When aiming to mitigate the effects of excessive noise in a factory setting, which strategy would best reflect an administrative control rather than an engineering control ?
   a. Installing soundproof panels on machinery
   b. Scheduling noisy tasks during less populated shifts
   c. Issuing noise cancelling headsets to workers
   d. Using vibration damping materials on equipment

6. Which of the following tools is used in ergonomic assessment?
   a. RULA
   b. Oscilloscope
   c. T-square
   d. None of the above

7. Which of the following best exemplifies organizational ergonomics rather than physical or cognitive ergonomics?
   a. Adjusting desk height for optimal posture
   b. Designing an intuitive user interface for software
   c. Structuring workplace schedules to minimize cognitive overload
   d. Reducing screen glare to prevent visual fatique

8. Repetitive strain injuries (RSIs) are commonly associated with which of the following?
   a. Manual lifting
   b. Cold working environments
   c. Repetitive hand movements
   d. Poor lighting

9. Which of the following is not a direct effect of inaedequate indoor air quality ?
   a. Respiratory problems
   b. Sick Building Syndrome
   c. Hypothermia
   d. Allergies

10. What is physical ergonomics?
   a. Psychological interaction with workplace
   b. Human body interaction with workplace things
   c. Study about physical elements
   d. None of the above

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Descriptive

Time :1 hr. 15 mins. Marks: 25

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

1. Define WMSD? What are the risk factors associated with WMSDs? 5

2. What role does seating design play in supporting worker's health? 10

3. Describe the work station analysis assessment? 10

4. Discuss the relationship between anthropometry and environmental factor mitigation in workplace design. How can ignoring anthropometric data during environmental planning lead to ergonomic failures ? 10

5. As a manager tasked with implementing flexible work strategies in a company that currently uses a rigid, heirarchial structure, design a practical plan to transition the organisation. 10

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