Name:

Enrolment No:



Semester: I

Time: 03 hrs.

UPES

End Semester Examination, December 2024

Course: Occupational Health & Safety
Program: M.Tech (Health, Safety and Environment)

Course Code: HSFS7003 Max. Marks: 100

SECTION A (5Qx4M=20Marks) S. No. Marks CO Differentiate between acute and chronic effects in terms of exposure and Q 1 4 CO₁ reversibility. Explain how cognitive ergonomics differs from physical ergonomics. Q 2 4 CO₂ Q 3 What are morbidity indicators, and how do they complement mortality 4 **CO1** indicators? O 4 Explain the significance of health services in achieving equitable healthcare 4 CO₂ distribution. Q 5 Explain the connection between environmental modifications and health 4 CO₂ promotion. **SECTION B (4Qx10M= 40 Marks)** Q 6 List the steps included in decontamination procedures for protection levels A 10 CO₃ Q 7 Compare the suitability of RULA and REBA for assessing ergonomic risks 10 CO₃ in office settings versus manufacturing environments. Critically assess the use of personal protective equipment (PPE) versus Q8 administrative controls in minimizing chronic chemical exposure in **10** CO₄ Design a dust control mechanism for reducing airborne particulate matter in Q9 mining operations. 10 CO₅ Investigate the impact of inadequate lead safety measures on workers' health. SECTION-C (2Qx20M=40 Marks) Q 10 A. Assess the long-term advantages of implementing a comprehensive ergonomic strategy in an organization. 20 **CO4** B. Compare the use of high-pressure water versus chemical cleaning solutions for heavy equipment. Critically assess the health risks of using chromium-based compounds in Q 11 industrial applications versus their economic benefits. 20 CO₅

Evaluate the adequacy of current occupational exposure limits for nickel in

preventing long-term health effects.