



**UNIVERSITY OF PETROLEUM & ENERGY STUDIES**

**End-Semester Examination –December 2017**

**Program. M.Tech HSE -DMSEM I.**

**Duration: 3 hours**

**Course Title: Occupational Health & Safety Management: Code:HSFS: 703**

**Max. Marks: 100**

**SECTION-A**

**(10x2=20 Marks)**

**Q.1**

- I. Bronchospasm is -----
- II. TLV-TWA is -----
- III. MSDS is -----
- IV. HAZOP is -----
- V. HAZCOMM-----
- VI. CO may cause -----
- VII. IDLH is -----
- VIII. ALARP is -----
- IX. The name of the gas that is added with LPG is -----
- X. STEL is -----

**SECTION-B- ATTEMPT ALL QUESTIONS**

**(4x10=40 Marks)**

- Q.2.** What are the chances of occupational health problems at construction site?
- Q.3.** Outline the possible effects on health & safety of poor housekeeping in the workplace.
- Q.4.** Discuss about chromium & its harmful effects.
- Q.5.** What do you understand by the term “Ergonomics” Describe ergonomics task analysis?

OR

Discuss briefly about asbestos and its health effects.

**SECTION C : ATTEMPT ANY TWO QUESTIONS**

**(2X20=40 MARKS)**

- Q.6** Working in industries is not an easy job, workers are exposed to different work hazard. Describe in detail various physical & chemical hazards. What are common methods of eliminating, minimizing and controlling hazards?
- Q.7** What is PPE? Explain in detail importance of different PPE for industrial operations with reference to occupational diseases?

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**Q.8.** Discuss in detail major toxic gases released from refinery operations and their various properties and treatment options.

**Or**

Krishna works for paper industry. He is having 8-hour shift; his shift starts at 6 A.M. The detail of his 8-hour shift is mentioned in the given table. Calculate the 8 hour TWA for him.

<b>S.NO.</b>	<b>WORKING PERIOD</b>	<b>TASK</b>	<b>EXPOSURE mg / m<sup>3</sup></b>
1	6 A.M – 9 A.M	WORKING NEAR CHIPPER YARD	3.50 ( measured)
2	9. A.M-10.30 AM	WORKING NEAR COAL HANDLING YARD	3.75 ( assumed)
3	10.45 A.M-11.30 AM	COLLECTION OF LIME STONE SAMPLE STONE FOR QUALITY CHECK	1.60 (assumed)
4	11.30A.M-12.30 PM	WORKING AT CENTRAL CONTROL ROOM	0.12 ( measured)
5	12.30 P.M-1.00 PM	LUNCH	
6	1.00 P.M-2.00 PM	ATTENDED ERGONOMICS TRAINING	0.0 (measured)

