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| Name: |  |
| Enrolment No: | |

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: M.Tech.-HSE+HSE (DM)
Semester: I
Programme: Occupational Health and Safety Management
Time: 03 hrs.
Instructions: Read the question properly and give the most relevant answer

COURSE CODE: HSFS 7003

Max. Marks: 100

SECTION A

| S. No. | | Marks | CO |
|--------|--|-------|-----|
| Q01 | Describe your understanding about chromium. | 4 | CO1 |
| Q02 | Identify various PPE's used in confined space entry operations. | 4 | CO2 |
| Q03 | Do you think occupational Safety videos can play important role in avoiding of occupational diseases/ accidents in industries. Justify your opinion. | 4 | CO4 |
| Q04 | Explain in detail about widely used material Asbestos and its health effects. | 4 | CO2 |
| Q05 | Classify the types of wastes and its disposal method. | 4 | CO5 |

SECTION B

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| Q06 | Explain Bio Hazards, draw sign of bio-hazard and how to avoid different level of exposure. | 10 | CO2 |
| Q07 | Lead is widely used in our daily life products. Discuss in detail its harmful effects and treatment methods. | 10 | CO5 |
| Q08 | The operator works for 6 hours 10 minutes on a process in which he is exposed to a substance hazardous to health. The average exposure during that period is measured as 1.12 mg.m-3. Then he was working on cleaning activities of his workplace average exposure during that period is measured as 0.66 mg.m-3, calculate TWA for 8 hrs. exposure. | 10 | CO4 |
| Q.9 | Analyze various hazards in a newspaper printing agency. Suggest methods to avoid these exposures. | 10 | CO1 , CO5 |

SECTION-C

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| Q10 | Medical Surveillance system in industries is an important activity and that can play a crucial role in some complicated medical cases. What are | 20 | CO5/CO3 |
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| | different steps of a Medical Surveillance program adopted for any hazardous industry? | | |
| Q11 | <p>What do you understand by the term “Ergonomics” Describe ergonomics task analysis.</p> <p style="text-align: center;">(OR)</p> <p>List the major toxic gases released from any industrial operations. Analyze their property, health effects and recommend treating/control measures in detail.</p> | 20 | CO5/CO4 |