

Post Graduate Diploma in Fire Safety and
Disaster Management (PGDFSTYDM)

Term-End Examination

June, 2012

MSEE-003 : INDUSTRIAL HYDROCARBON AND
CHEMICALS

Time : 3 hours

Maximum Marks : 100

Note : (i) Q.No 1 to 5 is *compulsory*.
(ii) Marks for each question are given against each.

1. (a) Hydrocarbon burning with less supply of oxygen produces : 2x5=10
- (i) Carbon dioxide and carbon monoxide
 - (ii) Carbon Dioxide
 - (iii) Carbon monoxide
 - (iv) Neither carbon dioxide nor carbon monoxide.
- (b) Hydrocarbons are :
- (i) Highly flammable
 - (ii) Can be explosive
 - (iii) Many are toxic and can be absorbed through the skin or lungs
 - (iv) All above

- (c) Materials that contain dangerous bacteria or viruses or the toxins these organisms produce are called
- (i) Infectious material
 - (ii) Flammable material
 - (iii) Explosives material
 - (iv) Protective material
- (d) BLEVE stands for :
- (i) Boiling Liquid Expanding Vapour Explosion
 - (ii) Better Labour Efficiency Via Energy
 - (iii) Boosting Low Energy Vitamin Enzyme
 - (iv) Bombay Level Extinguisher Variance Estimate
- (e) Before choosing to fight a fire, which of the following questions should you ask ?
- (i) Am I safe from toxic smoke and gases ?
 - (ii) Do I have an escape route ?
 - (iii) Do I have the right extinguisher ?
 - (iv) All of the above

2. Short questions : *All Compulsory* 6x5=30

- (a) What do you understand by Saturated Hydrocarbon ?
- (b) Define in brief the means of storage of hydrocarbon.

- (c) What is the use of thermal imaging camera during a fire fighting operation ?
- (d) How you will define the Chemical explosion ?
- (e) What do you mean by classification of fire ?

Descriptive questions. Attempt *any three* from following : **20x3=60**

- 3. Define different usages of Hydrocarbons.
 - 4. Explain Fire Fighting strategy in large fuel Depot, use of PPE and emergency evacuation.
 - 5. What special measures and precautions are associated with hazardous substances ?
 - 6. Write briefly on Petroleum Hydrocarbon gases. Classification and hazard analysis.
 - 7. Give an overview on chemical accident prevention provisions.
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