

**POST GRADUATE DIPLOMA IN FIRE SAFETY
AND DISASTER MANAGEMENT
(PGDFSTYDM)**

Term-End Examination

December, 2012

MSE-009 : FIRE SERVICE OPERATION

Time : 3 hours

Maximum Marks : 100

SECTION - A

Attempt all *five* questions. Each carries 2 marks.

1. (a) Tick the correct answer : 5x2=10
- (i) Which of the followings is a component of T.E.C powder ?
- (A) Barium Chloride
(B) Sodium Hydroxide
(C) Ammonium Phosphate
(D) Pottasium Permanganent
- (ii) Which additive in Dry Powder ensures moisture absorption ?
- (A) Ammonium chloride
(B) Sodium chloride
(C) Magnesium carbonate
(D) Silica

- (iii) What is the upper flammable limit of LPG.
- (A) 2.5% (B) 3.6%
(C) 7.5% (D) 9.5%
- (iv) Which of the following plastic after waving been cured by heat or other means is substantially infusible and insoluble.
- (A) Thermoplastic
(B) Thermo Forming Plastic
(C) Thermoset Plastic
(D) Reinforced Plastic
- (v) Which of the following gases is a contributor for global warming ?
- (A) LPG
(B) Nitrogen
(C) CARBON Dioxide
(D) ACETYLENE

SECTION - B

Attempt *any five* questions. Each carry 10 marks

1. Draw a neat diagram of CO₂ Fire Extinguisher showing its different components. Explain the merits and Demerits of this extinguisher. **5x10=50**
2. Explain how CO₂ gas is capable of extinguishing fire.
3. Discuss the various out fits incorporated in a Dry Chemical Powder Tender most suitable for class "A" and class "B" Fire as per ISO 7202.
4. Write short notes on the followings.
 - (a) Extending line
 - (b) Pawl
 - (c) Head Pulley
 - (d) Non Skid Shoe
5. Explain the String Test and Round Test of 35 feet Aluminium Extension Ladder.
6. Draw a neat sketch of centrifugal pump and explain its operating characteristics.
7. Explain the Advantages and Disadvantages of centrifugal pump.

SECTION - C

Attempt *any two* questions. Each carries
20 marks. 2x20=40

1. Explain close circuit water relay and spacing of intermediary pumps.
 2. Discuss the role of intermediary pump operators to maintain the delivery pressure.
 3. Write short notes on :
 - (a) Ventilation Saw
 - (b) Sledge Hammer
 - (c) Chisel
 - (d) Bolt cutter
 4. Write short notes on the following :
 - (a) Response of Fire Service to attend an overturned LPG tanker with leakage.
 - (b) Steps required to investigate the cause of fire.
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