

**55855**

Seat No. \_\_\_\_\_

**First Year B. Sc. (Fire) Examination**

April / May – 2003

**Fire Fighting Equipment**

Time : 3 Hours]

[Total Marks : 70

- Instructions :** (1) All questions are **compulsory**.  
(2) All questions carry **equal** marks.  
(3) Draw neat sketch wherever required.  
(4) Figures on the **right** hand indicate marks.

- 1 (a) What is the function of Hose reel Hose ? **2**  
(b) Explain the different types of hose couplings ? **2**  
(c) What is the function of water monitor and Branch pipe in fire fighting system ? Explain different types of nozzle ? **10**

**OR**

- 1 (a) What precautions do you propose to prevent damages of fire hose and maintain it properly in use ? **5**  
(b) What are the main characteristics of delivery hose ? **9**
- 2 (a) Why hydraulics test is necessary for fire extinguisher ? **2**  
(b) With a neat sketch describe the principle, construction, operation and uses of Halon type fire extinguisher. **12**

**OR**

- 2 (a) What is principle of fire Extinguishments ? **2**  
(b) Which chemicals are used as a Dry Chemical Powder ? **2**

- (c) With a neat sketch describe construction and operation of a water CO<sub>2</sub> (cartridge) type fire extinguisher. **10**
- 3** (a) Differentiate between : **6**
- (i) Aluminium Extension ladder and Escape ladder.
- (ii) Turn Table ladder and Hydraulic platform.
- (b) Enlist terminology used to operate turn-table ladder. **3**
- (c) Explain slab Hook ladder with neat sketch. **5**
- OR**
- 3** (a) What are the different types of hand extendable ladders used in fire service ? **2**
- (b) What are the different uses of a ladder in fire service ? **4**
- (c) With a neat sketch describe various parts of an Aluminium extension ladder. **8**
- 4** (a) Explain the maintenance of Breathing Apparatus Set **3**
- (b) Differentiate between open circuit and closed circuit type Breathing Apparatus Set. **3**
- (c) With neat sketch explain working of a closed circuit type Breathing Apparatus set. **8**
- OR**
- 4** (a) Explain the Distress signal unit. **4**
- (b) Name the different type of Breathing Apparatus Set. **4**
- (c) What is function of pressure gauge and by pass valve in Breathing Apparatus Set ? **2**
- (d) What is primary chamber and secondary chamber ? **4**  
Draw line diagram of first stage pressure reduction in Breathing Apparatus Set ?

- 5** (a) With the neat sketch explain the advantages and disadvantages of sluice valve. **8**
- (b) Write short notes on following : **6**
- (i) Ball valve
- (ii) Air release valve

**OR**

- 5** (a) Classify the valve according to the End Connection and Method of Operation. **4**
- (b) With a neat sketch explain the function of a butterfly valve. **7**
- (c) Enumerate usage and advantages of butterfly valve. **3**