

## BSc (F&amp;S) (NEP) Sem.-1 Examination

## DSC-C-111

## Fundamentals of Fire

February-2025

Time : 2-00 Hours]

[Max. Marks : 50

Q. No. 1

- (A) Write down classification of fire and material involved. 5  
 (B) Explain fire triangle and fire extinguishing methods. 5

OR

- (A) Write down role of heat in combustion. 5  
 (B) Write down command structure in fire service. 5

Q. No.2

- (A) Calculate the fire load of the room 20m x 20m having 4 tons wood inside. Calorific value of wood is 4000 Kcal/KG. 5  
 (B) Explain about combustion in solids. 5

OR

- (A) Explain about diffusion flame. 5  
 (B) Explain about deep seated flame and surface flame. 5

Q. No.3

- (A) Write down fire protection requirements of high-rise building. 5  
 (B) List out classification of building based on occupancy, residential building comes in which category? 5

OR

- (A) Explain fire resisting properties of timber, Bricks, R.C.C. 5  
 (B) Explain fire resisting properties of glass, stone. 5

Q.No.4

- (A) Define Flash over and write down about signs of Flash over? 5  
 (B) Explain Ionization smoke detector. 5

OR

- (A) What is ventilation and explain benefits of ventilation. 5  
 (B) Write down names of various detectors and explain any one of them. 5

Question : 5 : DO AS DIRECTED

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- 1) Fire resisting temperature of timber? (80°C, 90°C, 100°C, None)
- 2) What is the best extinguishing media for class C fire? (Foam, Water, DCP, CO<sub>2</sub>)
- 3) What is fireload? (Heat/area, Heatxarea, Heat+area, Heat-area)
- 4) Calorific value of Petrol is less than wood.. (True/False)
- 5) Smothering is removal of \_\_\_\_\_. (Oxygen, nitrogen, fuel, heat)
- 6) Write full form of HVAC.
- 7) Sodium is which class of fire? (A, B, C, D)
- 8) Starvation is removing of \_\_\_\_\_. (Oxygen, air, fuel, heat)
- 9) Radio active material is used in \_\_\_\_\_ detector. (Ionization, optical, flame, uv)
- 10) What is best media for class A fire? (Foam, DCP, Water, CO<sub>2</sub>)