8. Discuss the significance of mitigation and preparedness in disaster management. Explain different mitigation strategies and how these strategies can be part of planning, exercise, and training in preparedness. (15)

[This question paper contains 4 printed pages.]

Your Roll No...............

Sr. No. of Question Paper : **4713A**   **E**

Unique Paper Code   :   32187601

Name of the Paper   :   Natural Hazards & Disaster Management

Name of the Course   :   **B.Sc. (H) Environmental Science – DSE**

Semester   :   VI

Duration : 3 Hours   Maximum Marks : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.

2. Attempt any **five** questions.

3. **All** questions carry equal marks.

1. Write explanatory notes on the following : (5×3=15)

    (i) Hydrological hazards

P.T.O.

(ii) Seismic waves

(iii) Glacial Lake Outburst Floods (GLOFs)

2. Differentiate between the following : (5×3=15)

(i) Hazard and Risk

(ii) Natural disasters and Anthropogenic disasters

(iii) Vulnerability and Resilience to disaster management

3. Provide details of the National Disaster Management Framework and the national response mechanism. How government bodies such as NDMC and IMD play a significant role in disaster management? (15)

4. What underlying processes and mechanisms result in increased vulnerability in society towards natural disasters? How population growth, urbanization, and lack of appropriate policies increase the vulnerability in society. (15)

5. (a) Discuss the linkages between deforestation and landslide hazards in mountainous regions. (8)

(b) Analyze the role of river bank vegetation or alternate land use in managing flood hazards.

(7)

6. Describe the significance of geoinformatics in hazard, risk, and vulnerability assessment. Using suitable examples, briefly explain the merits and demerits of using geoinformatics in these assessments.

(15)

7. Differentiate between structural and non-structural mitigation measures. Discuss these concepts with appropriate examples and explain their advantages and limitations. (15)