(Pages : 3) U - 6370

Reg. No.	
Name :	

## Third Semester M.S.W. Degree Examination, March 2025

## **Disaster Management**

# SWDM 534.2 : SCIENCE AND TECHNOLOGY FOR RISK ASSESSMENT, PREVENTION AND PREPAREDNESS

(2022 Admission Onwards)

Time: 3 Hours Max. Marks: 75

#### PART – A

Answer all questions in not more than 50 words. Each question carries 2 marks.

- 1. Disaster risk reduction.
- 2. Cyclone tracking.
- 3. Environmental Impact Assessment (EIA).
- 4. CSM and FMEA.
- 5. Ecosystem based DRR.
- 6. Hazard modelling.
- 7. Community Radio.
- 8. Remote sensing.
- 9. Simple Triage Rapid Treatment (START).
- 10. Robotics in disaster response.

 $(10 \times 2 = 20 \text{ Marks})$ 

#### PART - B

Answer any **five** of the following questions in not more than **300** words. Each question carries **5** marks.

- 11. Vulnerability reduction and capacity development are the two pillars of disaster risk reduction. Discuss.
- 12. How can the scientific community and the community work together to reduce the risk of disasters?
- 13. What do you understand by post disaster livelihood security and housing reconstruction?
- 14. How can smart devices and software help respond to disasters?
- 15. Write a note on traditional knowledge and technologies in disaster risk reduction.
- 16. What are the functions of Emergency Operating Centres (EOCs) in disaster response that integrate science and technology?
- 17. How would government and scientists benefit from understanding and applying community ideas on catastrophe risk reduction?
- 18. What do you mean by crowd management, and what are the different crowd control techniques?

 $(5 \times 5 = 25 \text{ Marks})$ 

### PART - C

Answer any **three** of the following in not more than 800 words. Each question carries 10 marks.

- 19. What is meant by disaster risk assessment? Explain the various risk assessment models and their application in disaster management.
- 20. What are the major roles of science and technology in the disaster recovery and reconstruction?

U – 6370

- 21. What is meant by risk communication? Explain the cardinal rules of risk communication?
- 22. Integrating Artificial Intelligence for emergency response is critical in these times. Discuss
- 23. Develop a disaster risk reduction plan by combining scientific and technical techniques in any village/vulnerable place that is susceptible to natural disasters.

$(3 \times 10)$	=30	Marks)
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