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B.Tech/ M.Tech (Integrated) DEGREE EXAMINATION, MAY 2024
Sixth Semester

21CEO308T – DISASTER MITIGATION AND MANAGEMENT
(For the candidates admitted from the academic year 2022-2023 onwards)

Note:

- (i) **Part - A** should be answered in OMR sheet within first 40 minutes and OMR sheet should be handed over to hall invigilator at the end of 40th minute.
- (ii) **Part - B** and **Part - C** should be answered in answer booklet.

Time: 3 Hours

Max. Marks: 75

PART – A (20 × 1 = 20 Marks)

Answer **ALL** Questions

PART – A (20 × 1 = 20 Marks)		Marks	BL	CO	PO
Answer ALL Questions					
1. The disaster management Act was made in		1	1	1	1
(A) 2006	(B) 2003				
(C) 2005	(D) 2009				
2. In India, National Institute of Disaster Management is located at		1	1	1	1
(A) Manipur	(B) Punjab				
(C) Hyderabad	(D) New Delhi				
3. Vulnerability analysis comes in which part of the disaster management cycle?		1	2	1	7
(A) Mitigation	(B) Preparedness				
(C) Response	(D) Recovery				
4. Which of the following is not a component of disaster management cycle?		1	1	1	6
(A) Preparedness	(B) Response				
(C) Construction	(D) Recovery				
5. Bhopal gas disaster is a kind of		1	2	2	1
(A) Natural disaster	(B) Manmade disaster				
(C) Combined	(D) All the above				
6. The Chernobyl disaster of 1986 in Ukraine was a case of		1	2	2	6
(A) Epidemic disaster	(B) Toxic gas disaster				
(C) Nuclear disaster	(D) Normal gas				
7. The total flood prone area in India is		1	2	2	7
(A) 30%	(B) 20%				
(C) 12%	(D) 10%				
8. Which one of the following is a geological disaster?		1	1	2	1
(A) Tsunami	(B) Storm surge				
(C) Flood	(D) Wild fire				
9. High vulnerability and high hazard are associated with		1	1	3	1
(A) Low disaster risk	(B) Medium disaster risk				
(C) High disaster risk	(D) Nothing above				

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|---|---|---|---|---|
| 10. During volcanic eruption, the extreme risk zone is within a distance of | 1 | 2 | 3 | 1 |
| (A) Up to 100 m | | | | |
| (B) 100-300 m | | | | |
| (C) 300 m- 3 km | | | | |
| (D) More than 3 km | | | | |
| 11. Which of the following is not a man made hazard? | 1 | 1 | 3 | 1 |
| (A) Leakage of toxic waste | | | | |
| (B) Wars and civil strife | | | | |
| (C) Drought | | | | |
| (D) Environmental pollution | | | | |
| 12. Effective hazard management largely rely on | 1 | 2 | 3 | 6 |
| (A) Government agencies | | | | |
| (B) Emergency responses | | | | |
| (C) Volcanoes | | | | |
| (D) Pre disaster planning | | | | |
| 13. The conservation practices like wind breaks and shelter belts are used to minimize. | 1 | 1 | 4 | 1 |
| (A) Tsunami | | | | |
| (B) Intensity of flood | | | | |
| (C) Cyclone effects | | | | |
| (D) Soil erosion | | | | |
| 14. The point within the earth where an earthquake rupture starts is called | 1 | 1 | 4 | 1 |
| (A) Epicenter | | | | |
| (B) Crust | | | | |
| (C) Focus | | | | |
| (D) Intensity | | | | |
| 15. Waste water has a poor biodegradability if the ratio of BOD/COD is | 1 | 2 | 4 | 7 |
| (A) Higher than 40% | | | | |
| (B) Less than 30% | | | | |
| (C) Less than 40% | | | | |
| (D) Higher than 30% | | | | |
| 16. Which of the following is the objective of pre-disaster management? | 1 | 1 | 4 | 1 |
| (A) Collect information | | | | |
| (B) Participation of people | | | | |
| (C) First aid | | | | |
| (D) Mock drill | | | | |
| 17. Rehabilitation is the priority of which of the following phase? | 1 | 2 | 5 | 1 |
| (A) Phase of emergency | | | | |
| (B) Mock drill | | | | |
| (C) Reconstruction phase | | | | |
| (D) Transitional phase | | | | |
| 18. How many safety integrity levels exists? | 1 | 1 | 5 | 1 |
| (A) 1 | | | | |
| (B) 2 | | | | |
| (C) 3 | | | | |
| (D) 4 | | | | |
| 19. In Layer of Protection (LOP) analysis, which of protection, covers an onsite emergency plan? | 1 | 1 | 5 | 1 |
| (A) 1 st layer | | | | |
| (B) 3 rd layer | | | | |
| (C) 4 th layer | | | | |
| (D) 5 th layer | | | | |
| 20. Area where head count are usually taken after the evacuation of the affected area is known as | 1 | 2 | 5 | 1 |
| (A) Shelter area | | | | |
| (B) Head count area | | | | |
| (C) Mustering area | | | | |
| (D) Rescued area | | | | |

PART – B (5 × 8 = 40 Marks)Answer **ALL** Questions

	Marks	BL	CO	PO
21. a. Explain in detail about the disaster management approach in India.	8	2	1	1,6
(OR)				
b. Discuss about components of disaster in detail.	8	1	1	1
22. a. Explain any two types of drought and drought preparedness with mitigation.	8	1	2	1
(OR)				
b. Illustrate the classification of hazards in detail.	8	2	2	1
23. a. Define vulnerability and explain the classifications of vulnerability.	8	1	3	6
(OR)				
b. Discuss about the importance of international agencies in disaster mitigation.	8	3	3	1,6
24. a. Explain application of remote sensing in various disaster situations.	8	3	4	1
(OR)				
b. Explain disaster management cycle in detail with pre and post disaster stages elaborately.	8	2	4	6,7
25. a. Justify, why the recovery phase is essential after a disaster?	8	2	5	7
(OR)				
b. What are the mitigation measures for your home to prevent it from disasters?	8	2	5	6

PART – C (1 × 15 = 15 Marks)Answer **ANY ONE** Question

	Marks	BL	CO	PO
26. Explain, National Disaster Management framework in detail with flowchart description.	15	1	1	1,6
27. Write in detail about hydro metrological hazards.	15	2	2	1

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