

PART – B (5 × 10 = 50 Marks)
Answer ALL Questions

26. a. Demonstrate the purpose, key stages, and outcomes of the disaster management cycle. 10 3 1 1

(OR)

b. Examine the roles and responsibilities of the various committees of national disaster management under each layer in detail and outline its framework with a neat sketch. 10 3 1 7

27. a. Write down the classification, causes, and effects of an earthquake and examine the two important scales used to measure the impact of an earthquake. 10 3 2 1

(OR)

b.i. Compare cyclone and anti-cyclone with a neat diagram. 5 4 2 1

ii. Examine the key factors leading to the causes of flood. 5 3 2 1

28. a. Examine the causes and effects of the Chernobyl nuclear power plant accident in detail. 10 3 3 1

(OR)

b. Examine the causes and effects of the Bhopal gas tragedy. 10 3 3 1

29. a. Analyze the importance of Land-use zoning in disaster management in detail. 10 4 4 6

(OR)

b. Write down the significance of the essential post-disaster activity “Search and Rescue”. 10 4 4 6

30. a. Analyze the role of remote sensing and GIS in the response, recovery and mitigation phases of the flood event. 10 4 5 1

(OR)

b. Analyze the roles and responsibilities of the scientific divisions of the national centre for seismology, India. 10 4 5 1

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Reg. No.

B.Tech. DEGREE EXAMINATION, NOVEMBER 2022
Sixth/ Seventh Semester

18CEO307T – DISASTER MITIGATION AND MANAGEMENT
(For the candidates admitted from the academic year 2018-2019 to 2019-2020)

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 should be answered in answer booklet.

Time: 2½ Hours

Max. Marks: 75

PART – A (25 × 1 = 25 Marks)

Answer ALL Questions

- | | Marks | BL | CO | PO |
|--|-------|----|----|----|
| 1. What is considered to be a major risk for southern states of India?
(A) Flood (B) Drought
(C) Cyclone (D) Frigid-desert | 1 | 1 | 1 | 7 |
| 2. Which of the following does not belong to the objectives of the Disaster Management Act?
(A) Effective management of disaster
(B) Constitution of different executive committee at national and state levels
(C) Provides institutional mechanisms for drawing up policies
(D) Establishing collaboration with NGO's in policy-making | 1 | 1 | 1 | 12 |
| 3. Identify the data involved in the preparing of isoseismals.
(A) Duration (B) Location
(C) Magnitude (D) Intensity | 1 | 1 | 1 | 1 |
| 4. Development of a “Bio-Shield” to reduce the intensity of Tsunami comes under
(A) Community measure (B) Conventional measure
(C) Non-structural measure (D) Structural measure | 1 | 2 | 1 | 1 |
| 5. Which of the following is not a part of the geological disaster?
(A) Volcanoes (B) Sea surge
(C) Earthquake (D) Tsunami | 1 | 2 | 1 | 7 |
| 6. The purpose of the conservation practices like windbreaks and shelterbelts is
(A) To control soil erosion (B) To reduce the intensity of flood
(C) To reduce cyclone effects (D) To reduce the effect of tsunami | 1 | 2 | 2 | 1 |
| 7. Sinking or settling of the ground in a vertically downward direction which may occur because of the removal of natural support from the underground, is called
(A) Flowage (B) Subsidence
(C) Sliding (D) Toppling | 1 | 1 | 2 | 1 |

8. Interpret the relationship between the given statements: 1 2 2 1
 Assertion (A) crop rotation is the practice of planting different crops sequentially on the same plot of land
 Reason (R) this practice is done to decrease the rate of soil erosion.
 (A) A is true, but R is not the correct explanation (B) A is false, but R is the correct explanation
 (C) A is true, R is the correct explanation (D) A is false, but R is not the correct explanation
9. What is the normal concentration of ozone? 1 1 2 7
 (A) 250 to 300 D.U (B) 300 to 350 D.U
 (C) 350 to 400 D.U (D) 400 to 450 D.U
10. How the accurate location of the epicenter of an earthquake is identified? 1 2 2 1
 (A) Remote sensing (B) Survey
 (C) Isoseismals (D) Travel time curve
11. Examine how the coal fire pollutes the water 1 2 3 7
 (A) By increasing acidity (B) By changing color
 (C) By increasing fluoride (D) By increasing TDS
12. What type of forest fire is particularly very dangerous? 1 1 3 7
 (A) Surface fire (B) Crown fire on a hill slope
 (C) Crown fire on a flat surface (D) Surface fire in a dry region
13. What was the primary cause of the nuclear disaster in Fukushima on 11th March 2011? 1 1 3 1
 (A) Internal fire accident (B) Malfunction of cooling systems
 (C) Low-quality reactors (D) Earthquake and Tsunami
14. In India, the fire in the Jharia coal field was mainly due to 1 1 3 7
 (A) Unscientific mining (B) Forest fire
 (C) Human accident (D) Lightning
15. Interpret the relationship between the given statements: 1 2 3 7
 Assertion (A) acid rain is a human-induced disaster
 Reason (R) acid rain kills, trees, damages buildings, statues and takes mineral out of soil.
 (A) A is true, but R is not the correct explanation (B) A is false, but R is the correct explanation
 (C) A is true, R is the correct explanation (D) A is false, R is not the correct explanation
16. What is the name of a map in which the surface features are classified based on the human activities? 1 1 4 7
 (A) Land cover map (B) Land use map
 (C) Land cover and land use map (D) Cadastral map
17. Which color tag is given to the victim with life-threatening? Injuries that demand immediate attention to save their life during medical triage? 1 1 4 6
 (A) Yellow (B) Green
 (C) Black (D) Red

18. What is the rank of the 'Ruinous' category in MM scale? 1 1 4 12
 (A) 3 (B) 5
 (C) 9 (D) 11
19. What is the name of the rescue method when the victim is found in a grave condition and is to be shifted in a flat position? 1 2 4 6
 (A) Blanket lift (B) Cloth lift
 (C) Four-handed seat (D) Lashing
20. Interpret: Assertion (A) SAR stands for search and reimburse (SAR) 1 2 4 9
 Reason (R) the SAR activities are undertaken in two ways
 (i) Community local rescuers and
 (ii) Outside community resources
 (A) A is true, but R is not the correct explanation (B) A is false, but R is the correct explanation
 (C) A is true and R is the correct explanation (D) A is false and R is not the correct explanation
21. Interpret: Assertion (A) crowd scouring is an efficient tool in disaster response operations 1 2 5 1
 Reason (R) it is also called informal interventions
 (A) A is true, but R is not the correct explanation (B) A is false, but R is the correct explanation
 (C) A is true and R is the correct explanation (D) A is false and R is not the correct explanation
22. What is the name of the regional navigation satellite system developed by India? 1 1 5 1
 (A) RISAT (B) IRNSS
 (C) GPS (D) GLONASS
23. Which of the following is not belonging to the positional astronomy service? 1 2 5 1
 (A) Lunar phenomena for prediction of tides (B) Ozone monitoring network
 (C) Local circumstances of eclipses (D) Polar star data
24. Name the satellite product that was proven to be very useful for mapping flood inundated areas? 1 1 5 1
 (A) Synthetic aperture radar (B) Landsat
 (C) IRS (D) MODIS
25. Interpret: Assertion (A) Mobile GIS is useful in field operations 1 2 5 1
 Reason (R) Mobile GIS belongs to the mitigation phase of the disaster management cycle
 (A) A is true, but R is not the correct explanation (B) A is false, but R is the correct explanation
 (C) A is true and R is the correct explanation (D) A is false and R is not the correct explanation