



Roll No.

ANNA UNIVERSITY (UNIVERSITY DEPARTMENTS)

B.E. /B.Tech / B. Arch (Full Time) - END SEMESTER EXAMINATIONS, NOV / DEC 2024

GEOINFORMATIC ENGINEERING

Seventh Semester

GI5011 & GIS BASED DISASTER PREPAREDNESS & MITIGATION

(Regulation 2019)

Time:3hrs

Max. Marks: 100

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|-----|---|
| CO1 | To understand various types of disasters and infrastructural facilities available for managing disasters. |
| CO2 | To understand disaster mitigation principles. |
| CO3 | To gain knowledge about safety evaluation of essential social infrastructures. |
| CO4 | To expose the applications of remote sensing in disaster management. |
| CO5 | To explain the use of spatial science in four folds of disaster management. |

BL – Bloom's Taxonomy Levels

(L1-Remembering, L2-Understanding, L3-Applying, L4-Analysing, L5-Evaluating, L6-Creating)

PART- A(10x2=20Marks)

(Answer all Questions)

| Q.No. | Questions | Marks | CO | BL |
|-------|--|-------|----|----|
| 1 | Define Disaster. | 2 | 1 | 1 |
| 2 | Give expansion for NDRF, NDMA, NPDM and NIDM which is related to disaster. | 2 | 1 | 2 |
| 3 | State the difference between hazard and disaster. | 2 | 2 | 2 |
| 4 | List the long term approaches for disaster mitigation. | 2 | 2 | 1 |
| 5 | List the expected internal disaster in hospital. | 2 | 3 | 2 |
| 6 | What is slope stability of road? | 2 | 3 | 1 |
| 7 | List any two communication satellite which are useful for disaster management. | 2 | 4 | 1 |
| 8 | What is sustainable development? | 2 | 4 | 1 |
| 9 | List the factors to be considered for vulnerability study of settlements. | 2 | 5 | 1 |
| 10 | Describe the disaster impact due to unplanned Urbanization. | 2 | 5 | 2 |

PART- B(5x 13=65Marks)

(Restrict to a maximum of 2 subdivisions)

| Q.No. | Questions | Marks | CO | BL |
|--------|--|-------|----|----|
| 11 (a) | Illustrate the causes and adverse effects of Forest Fires. | 13 | 1 | 2 |
| OR | | | | |
| 11 (b) | Apply the capability of GIS in Flood mitigation and management process. | 13 | 1 | 2 |
| OR | | | | |
| 12 (a) | Explain the Government of India initiatives for the disaster mitigation plans. | 13 | 2 | 3 |
| OR | | | | |
| 12 (b) | Demonstrate the role of Media in disaster mitigation and Management. | 13 | 2 | 3 |

| | | | | |
|-----------|---|----|---|---|
| 13 (a) | Discuss the design and considerations of cyclone / Tsumani shelters. | 13 | 3 | 4 |
| OR | | | | |
| 13 (b) | Explain the importance of awareness about hospital safety during disaster to the people. | 13 | 3 | 4 |
| OR | | | | |
| 14 (a) | Discuss the capability of remote sensing and GIS for Landslide hazard zone mapping. | 13 | 4 | 4 |
| OR | | | | |
| 14 (b) | Analyze the role of GIS technology in sustainable land use planning to improve decision-making. | 13 | 4 | 4 |
| 15 (a) | Challenges in spatial and non-spatial data integration for emergency management | 13 | 5 | 5 |
| OR | | | | |
| 15 (b) | Explain the role of Remote sensing in various phases of disaster management. | 13 | 5 | 5 |

PART- C(1x 15=15Marks)
(Q.No.16 is compulsory)

| Q.No. | Questions | Marks | CO | BL |
|-------|--|-------|----|----|
| 16. | a) Justify the ecosystem like mangroves and wetlands can help to reduce the impact of natural disasters. b) Compare the disaster recovery process in Rural and Urban areas. | 10 | 2 | 5 |
| | | 5 | 2 | 4 |

