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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

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-Appling, 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
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
14 (a)	Discuss the capability of remote sensing and GIS for Landslide harzard 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.	10	2	5
	b) Compare the disaster recovery process in Rural and Urban areas.	5	2	4

