

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: MTECH & PRE_PHD
BRANCH: REMOTE SENSING**

**SEMESTER : II
SESSION : SP/2023**

SUBJECT: RS506 REMOTE SENSING IN DISASTER MANAGEMENT

TIME: 3 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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Q.1(a)	What are the aims of Disaster Management? Give an account of Natural and Human induced disasters.	[5]	1	1
Q.1(b)	How does the Cyclone build up and what type of impacts it can produce upon its landfall? What are the forecasting stages of a cyclone?	[5]	1	2
Q.2(a)	What is multi-hazard mapping? How does GIS useful in Hazards mapping? Elaborate	[5]	2	4
Q.2(b)	What are various data taken into consideration in Hazard, Vulnerability and Risk assessment?	[5]	2	3
Q.3(a)	What is the national policy on Disaster Management?	[5]	3	2
Q.3(b)	What should be the mitigation measures for effective handling of flood disasters in India? Give an account in the perspective of Geo-spatial technology	[5]	2	4
Q.4(a)	How can Spatial and Non-Spatial data be useful for Disaster Management Planning? Elaborate.	[5]	5	3
Q.4(b)	For natural disaster management planning, how can the spatial data infrastructure (SDI) be helpful at national level?	[5]	4	3
Q.5(a)	How is flood risk mapping performed using Remote Sensing and GIS technology? Also, explain the pair-wise comparison of criteria using AHP method.	[5]	5	4
Q.5(b)	Appraise any one of the following: 'Landslides in Himalayan region' OR 'Glacial Lake Outburst floods'	[5]	5	3

:27/04/2023:E