

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

**CLASS: BE
BRANCH: CIVIL**

**SEMESTER : VII
SESSION : MO/19**

SUBJECT: CE7013 DISASTER MANAGEMENT

TIME: 3:00 HOURS

FULL MARKS: 60

INSTRUCTIONS:

1. The question paper contains 7 questions each of 12 marks and total 84 marks.
 2. Candidates may attempt any 5 questions maximum of 60 marks.
 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 types of Disaster? | [2] |
| Q.1(b) Discuss the impacts of any one natural hazard that has affected India. | [4] |
| Q.1(c) Using suitable examples, compare the terms risk, hazard and disaster. | [6] |
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| Q.2(a) Explain the role of NIDM in disaster Management. | [2] |
| Q.2(b) Why do you think community capacity building is essential for disaster management? | [4] |
| Q.2(c) Design a disaster management plan for Kerela floods. Assumptions can be taken. | [6] |
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| Q.3(a) Define Liquefaction? | [2] |
| Q.3(b) Explain the Shear Deformation Model and Multiple reflection theory. | [4] |
| Q.3(c) What are the types of seismic zonation and explain its need? | [6] |
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| Q.4(a) Explain the formula that determines the velocity of Tsunami. | [2] |
| Q.4(b) Analyse the reasons for architectural failures due to cyclone. | [4] |
| Q.4(c) Justify the various designs of houses built in cyclone prone areas | [6] |
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| Q.5(a) Differentiate between flash flood and riverine flood. | [2] |
| Q.5(b) What are the structural measures for controlling flood damages? | [4] |
| Q.5(c) Analyse the reasons for drought and the mechanisms for reducing the impacts of drought. | [6] |
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| Q.6(a) Define Landslide. | [2] |
| Q.6(b) Explain the mechanism to reduce landslides | [4] |
| Q.6(c) What are the geological, morphological and human causes of landslides? | [6] |
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| Q.7(a) Define fire. | [2] |
| Q.7(b) What are the causes of anthropogenic forest fire? | [4] |
| Q.7(c) What are the types of fire control and alarm systems? | [6] |

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