[Total No. of Questions - 9] [Total No. of Printed Pages - 3] (2063)

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#### **B. Tech 2nd Semester Examination**

# Disaster Management and Environmental Science (N.S.)

#### HS-101

Time: 3 Hours Max. Marks: 100

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

**Note:** Attempt five questions in all selecting one question from each section A, B, C and D. Question No. 9 ix compulsory. All questions carry equal marks. Use of non-programmable calculator is allowed.

#### **SECTION - A**

- 1. (a) What is meant by Disaster Management? What are the different stages of Disaster management?
  - (b) Specify the role played by an Engineer in the process of Disaster Management. (2×10=20)
- 2. (a Differentiate Natural Disasters and Manmade Disasters with examples.
  - (b) How the inmates of a multistory building are to be evacuated in the event of a Terrorist Attack. (2×10=20)

### **SECTION - B**

3. (a) Explain disaster migration. Describe "Warning" and explain the various steps involved in it.

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- (b) What is disaster preparedness? Explain. (2×10=20)
- 4. (a) GIS is a powerful tool that can support decision making in all phases of the disaster management cycle. Explain.
  - (b) List down the various Rural Development
    Programmes that can be initiated for
    disaster reduction and mitigation. (2×10=20)

#### **SECTION - C**

- 5. (a) Rapid technologies growth has led to resource depletion. Give your vies with example in support or against this statement.
  - (b) What is role of individual in conservation of natural resources for sustainable life-style (2×10=20)
- 6. (a) What are Non-renewable Resources?

  Explain giving examples how are they formed? (4+6=10)
  - (b) Explain the effect over exploitation of following resources on the environment:
    - (i) Forest Resources (ii) Surface Water. (2×5=10)

## **SECTION - D**

- 7. (a) Explain the effect of climate change on
  - (i) Economy
  - (ii) Natural Resources (2×5=10)
  - (b) What is environment? List various environmental issues faced at global level. (2+8=10)

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- 8. (a) What are the major environmental problems caused by development and industrial growth.
  - (b) From a human perspective, ozone is both helpful and harmful; Comment. (2×10=20)
- 9. Answer briefly the following questions:
  - (a) Define natural disaster. List the types of natural disaster.
  - (b) Explain about holistic development planning.
  - (c) Differentiate between Hazard and Risk.
  - (d) What are the factors that affect people's vulnerability to disasters?
  - (e) Name at least five roles to be played by insurance in natural disaster relay?
  - (f) What is the purpose of Management Information System (MIS)?
  - (g) What do you understand by Decision Support System (DSS)?
  - (h) Mention the 5 phases of disaster management programme.
  - (i) Name at least five effects of earthquake?
  - (j) Define Tsunamis. (10×2=20)