

16032(J)

J-16

**B. Tech 2nd Semester Examination**

**Disaster Management and Environmental Science (NS)**

**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 :** The question paper consists of five Sections A, B, C, D and E. The candidates are required to attempt five questions in all selecting one question from each section A, B, C and D and all subparts of Section E. Use of non-programmable calculator is allowed.

**SECTION - A**

1. (a) Define the following:
- (i) Hurricanes.
  - (ii) Terrorism.
  - (iii) Avalanche.
  - (iv) Anticyclones.
  - (v) Epidemics. (5×2=10)
- (b) Explain the following:
- (i) Causes of forest fires.
  - (ii) Classification of forest fires. (2×5=10)

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2. (a) What are the possible causes of Earthquakes? Discuss. (10)
- (b) Give the classification of Earthquakes based upon various terminologies. (10)

**SECTION - B**

3. What you understand by "Tropical Cyclone"? What are its characteristics? (20)
4. Define the following terms in reference to disaster prevention and mitigation:
- (a) Disaster prevention.
  - (b) Disaster mitigation.
  - (c) Disaster preparedness.
  - (d) Risk.
  - (e) Vulnerability. (5×4=20)

**SECTION - C**

5. (a) What is renewable energy?
- (b) List pros and cons of using renewable energy. (5+15=20)
6. (a) Answer the following questions:
- (i) Sources of 'Thermal Pollution'.
  - (ii) Measures to prevent 'Thermal Pollution'. (2×5=10)
- (b) List two main general effects of 'Radioactive Pollution' and explain them. (4)

- (c) What are the measures to control the 'Radioactive Pollution'? (6)

### SECTION - D

7. (a) List the main sources of environmental pollution. Discuss each of them briefly how they contribute to pollution. (4+6=10)
- (b) Discuss how the following substance lead to air pollution:
- (i) Oxides of Nitrogen.
  - (ii) Hydrocarbons.
  - (iii) Aerosols.
  - (iv) Particulate matter. (10)
8. Write short notes on the following:
- (i) Source of water pollution.
  - (ii) Greenhouse causes and effects. (2×10=20)

### SECTION - E

9. Answer all the parts: (each to be answered in about thirty (30) words. Each question carries two (2) marks.
- (a) List out at least four areas to be addressed by the disaster mitigation works.
  - (b) Distinguish between cyclone and anticyclone.
  - (c) Define photochemical smog.
  - (d) List four causes that can trigger landslides.

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- (e) List four effects of 'Noise Pollution'.
- (f) Define 'Thermal Discharge' index.
- (g) What is difference between disaster preparedness and disaster mitigation?
- (h) List four major environmental issue faced by the global society.
- (i) Name at-least two main gases alongwith their percentage contribution to greenhouse effect.
- (j) What is the role of the ozone layer for living beings? (2×10=20)