

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

Dec-22-0100

HS-103 (Disaster Management & Environmental Science)

B.Tech-1st (CBCS)

Time : 3 Hours

Max. Marks : 60

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, D and all subparts of section E.

SECTION A

1. a) Describe the various causes and effects of landslides. Mention the important components of the National Landslide Risk Management Strategy.
b) Specify the role played by an engineer in the process of disaster management. (6+4)
2. a) How important is vulnerability and risk assessment for pre-disaster management? What are the key areas that can be focused on in a Disaster Management System in India?
b) Explain the impact of earthquake with the help of any case study. (6+4)

SECTION B

3. a) Give an account of post disaster relief and logistics of earthquake management. What is the role of information system in the disaster management?

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- b) How the rural development programmes can be integrated with disaster reduction and mitigation activities? Explain few of the rural development programmes. (6+4)
4. a) GIS is a powerful tool that can support decision making in all phases of disaster management cycle. Explain.
b) What is material and resource management? Why is it important? (6+4)

SECTION C

5. a) What is nuclear hazard? Discuss in detail the effects of nuclear hazards. What are its remedies?
b) Give an account of inter-state conflicts over water in India. (6+4)
6. a) What major sources of energy do we use? Write down five important points for advantages and disadvantages of fossil fuels. Give an account of future energy path for the world.
b) Give a detailed account on the effect of Dam construction on tribal people. (6+4)

SECTION D

7. a) What are greenhouse gases? Explain how they are responsible for global warming and its impact on human population.
b) What are HFCs and how they are different from CFCs? Give ill effects of ozone depletion on man. (6+4)
8. a) What is Global Environmental Crisis? Explain the causes of Global Environmental Crisis.
b) What is the role of Engineers for change the energy use over the years for better and clean environment? (6+4)

[P.T.O.]

SECTION E

9. Answer briefly the following questions:
1. Difference between a cyclone and an anticyclone.
 2. Mitigation of natural disaster.
 3. Role of Methane in climate change.
 4. Role of voluntary agencies in disaster management.
 5. Chemical terrorism
 6. Ground water replenishment.
 7. Montreal Protocol
 8. Bio-magnification
 9. Extraterrestrial hazards.
 10. Emergency disaster management. (10×2=20)