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Reg. No. :

Question Paper Code : X10551

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020 Fifth Semester

Civil Engineering

GE 8071 – DISASTER MANAGEMENT

(Common to Agriculture Engineering/Civil Engineering/Environmental Engineering/Geoinformatics Engineering/Petrochemical Engineering/B.Tech. Bio Technology/B.Tech. Chemical Engineering/B.Tech. Fashion Technology/B.Tech. Food Technology/Handloom and Textile Technology/Petrochemical Technology/ Petroleum Engineering/Pharmaceutical Technology/Plastic Technology/Polymer Technology/Textile Technology)) (December 2017)

(Regulations 2017)

Time : Three Hours

Answer ALL questions

PART - A

(10×2=20 Marks)

Maximum : 100 Marks

- 1. Differentiate : Hazard, Vulnerability and Risk.
- 2. List the different groups disasters classified by Government of India.
- 3. What is SDMA ? Enumerate its roles and responsibilities.
- 4. Define early warning system with suitable example.
- 5. What are all different factors affecting vulnerability ?
- 6. What is IPCC and why it is created ?
- 7. Write a note on hazard profile of India.
- 8. Enumerate the salient features of Disaster Management Act of India.
- 9. Distinguish landslide hazard and landslide susceptibility.
- 10. What are all the different types of Floods ?

PART - B

(5×13=65 Marks)

- 11. a) Illustrate and write a note on disaster management cycle. (OR)
 - b) List the do's and don'ts after an earthquake situation.

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12. a) Write a note on structure and responsibilities of National Disaster Management Authority (NDMA).

(OR)

- b) Write a note on community based disaster risk reduction in coastal areas.
- 13. a) How developmental projects impact on different land uses leading to disasters ? (OR)
 - b) How indigenous knowledge is a perfect tool for disaster risk reduction ? Justify.
- 14. a) Discuss the challenges involved in post disaster phases.

(OR)

- b) How GIS and Information Technology is useful in disaster preparedness ? Explain.
- 15. a) Discuss : What are all the lessons you learned from 2015 South Indian Flood. (OR)
 - b) Write a note on role of engineers is disaster mitigation and management.

PART - C

(1×15=15 Marks)

16. a) The Super Cyclonic Storm Amphan was a powerful and deadly tropical cyclone that caused widespread damage in East India and Bangladesh in May 2020. It was the most powerful tropical cyclone to strike the Ganges Delta and the first super cyclonic storm to occur in the Bay of Bengal since the Odisha cyclone of 1999. On 18 May, at approximately 12: 00 UTC, Amphan reached its peak intensity with 3-minute sustained wind speeds of 240 km/h (150 mph), 1-minute sustained wind speeds of 260 km/h (160 mph), and a minimum central barometric pressure of 925 mbar. On 20 May, between 10:00 and 11:00 UTC, the cyclone made landfall in West Bengal. At the time, Amphan's 1-minute sustained winds to be 155 km/h (100 mph). Amphan rapidly weakened once inland, and it became a remnant low by 12:00 UTC on 21 May 2020. Assume if similar situation arise the State of Tamil Nadu, how will you prepared for the scenario ? Explain based on your class room experience.

(OR)

b) How space technology useful in various phases of disaster mitigation and management ? Explain with suitable examples.