KATHMANDU UNIVERSITY
End Semester Examination
July/August, 2024

Marks Scored:

Level : B.Sc.
Year : III

Course : ESEE 305
Semester : I

Exam Roll No. :

Time: 30 mins.

F. M. : 20

Registration No.:

Date : 0 7 AUG 2024

SECTION "A"

[20 Q. × 0.5 = 10 marks]

Choose and encircle in the most appropriate option from each set of choices

1. _____ is degree of loss (range from 0%, no damage to 100%, total loss)
   a. Environmental hazard b. Risk
   c. Vulnerability d. Environment

2. Natural disasters can have rapid or slow _____, and serious health, social, and economic consequences.
   a. Preset b. seton c. offset d. onset

3. What is the main purpose of a seismic hazard map?
   a. Predicting seismic paths b. Identifying earthquake characteristics
   c. Assessing earthquake risk d. Monitoring earthquake activity

4. Meningitis caused by Neisseria meningitidis is transmitted from person to person, particularly in situations of _____.
   a. water-borne disease b. crowding
   b. vector-borne disease d. sanitation

5. ----------are like small tsunamis
   a. Sesiches b. Seiches c. Schiie d. Shichite

6. One possible effect of a hazard on society. Usually, a sudden event that causes great damage or loss of life during a limited time and limited geographic area
   a. Risk b. Flood c. Disaster d. Earthquake

7. By one estimate, about _____ extraterrestrial bodies in near-Earth orbits have the potential for a significant impact.
   a. 10 million b. 20 million c. 30 million d. 40 million

8. _____ is to study the size of distribution and Dynamic Process associated with near-Earth objects and especially to identify those objects with a diameter of about 1 km.
   a. NEET b. NAET c. NIIT d. NEAT

9. The "Richter scale" measures the magnitude of:
   a. Hurricanes b. Earthquakes c. Tornadoes d. Volcanic eruptions

10. In _____ the US National Oceanic and Atmospheric Administration (NOAA) began developing the Deep Ocean Assessment and Reporting of Tsunami (DART) system.
    a. 1994 b. 1995 c. 1996 d. 1997

11. _____ is because of frequent arthropods, such as mosquitoes, ticks, flies, fleas, and lice.
a. Waterborne disease
b. Vector-borne disease
c. Sanitation
d. Crowding

12. Generally, meteoroids either explode in an aerial burst in the atmosphere at an altitude between 12 km and _____ km, or collide with Earth.
a. 20 b. 30 c. 40 d. 50

13. Which natural hazard is associated with pyroclastic flows and lahars?
a. Earthquake b. Volcanic eruption c. Tsunami d. Hurricane

14. The process of reinforcing buildings and infrastructure to withstand earthquakes is known as:
a. Retrofitting b. Landscaping c. Sequestering d. Ablation

15. _____ is the expected degree of loss due to a particular natural phenomenon and as a function of both natural hazard and vulnerability
a. Element at risk (E)
b. Vulnerability (V)
c. Specific risk (Rs)
d. Hazard (H)

16. What is the primary purpose of land-use planning in the context of disaster management?
a. Minimizing earthquake risk
b. Preventing hurricanes
c. Reducing flood damage
d. Mitigating volcanic eruptions

17. Which type of flood occurs when there is a sudden release of water from a glacier or ice cap?
a. Flash flood b. Riverine flood c. Coastal flood d. GLOF

18. A social and economic crisis that is commonly accompanied by widespread malnutrition, starvation, epidemic disease, and increased mortality.
a. Faminy b. Famine c. Famini d. Fanime

19. Which phase of disaster management involves actions taken to minimize the impact of a hazard on people and property?
a. Preparedness b. Mitigation c. Response d. Recovery

20. _____ is caused by deficit rainfall, which is a meteorological phenomenon, it manifests in different spheres because of various vulnerability factors associated with it.
a. earthquake b. drought c. volcanic activity d. flood

SECTION "B"

[10 Q. × 1 = 10 marks]

Give precise meaning or definition of the following.

21. Severe drought

22. Ground Fire

23. Blizzard

24. Sinkholes

25. Rapid onset disaster

26. Solar flare

27. Epidemic

28. Comet

29. Flash floods

30. Laze

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SECTION "C"
[3 Q. × 7 = 21 marks]

Attempt ANY THREE questions.

1. Wildfire is a major issue in the dry season due to anthropogenic activities in Nepal's forest areas. What will be the impact on biodiversity? What steps can you take to mitigate this recurring problem in the context of Nepal? [2+2+4]

2. Why is effective natural disaster management more crucial in Nepal compared to other countries?

3. "The reduction in fatalities due to flooding can be attributed to advancements in flood forecasting technology and organization", what types of data are gathered for contemporary flood forecasting methods?

4. What is a landslide hazard, and how can it be mitigated? Please provide a concise explanation.

SECTION "D"
[34 marks]

5. Write a short note on (***ANY FOUR***) [4 Q. × 4 = 16 marks]
   a. Role of information technology in disaster management
   b. Sources of natural hazards
   c. Earthquake impact mitigation strategy in the context of Nepal
   d. Causes of flood
   e. Public awareness in landslide management

6. Differentiate between (***ANY FOUR***) [4 Q. × 3 = 12 marks]
   a. Crown fire and Surface fire
   b. Response and Rehabilitation
   c. Comet and Meteor
   d. Total Risk and Element at Risk
   e. Epicenter and Hypocenter

7. Discuss in the following terms (***ANY THREE***) [3 Q. × 2 = 6 marks]
   a. Tsunami
   b. Real-time data
   c. Onset of drought
   d. Seismic Gap