

KATHMANDU UNIVERSITY  
End Semester Examination [C]  
April/May, 2023

Marks Scored:

Level : B.Sc.

Year : III

Exam Roll No.:

Time: 30 mins.

Course : ESEE 305

Semester : I

F. M. : 20

Registration No.:

Date :

26 APR 2023

SECTION "A"

[20Q. × 0.5 = 10 marks]

Mark "√" in the appropriate box.

- The transmission of \_\_\_\_\_ is influenced by meteorological conditions including rainfall and humidity and often exhibits strong seasonality.  
 Dengue       Meningitis       Measles       Tetanus
- \_\_\_\_\_ can develop quickly, sometimes in just a few minutes and without any visible signs of rain.  
 Fast floods       Rapid flood       Flash floods       Flush Flood
- \_\_\_\_\_ is the population, buildings and civil engineering works, economic activities, public services, utilities and infrastructure, etc at risk in a given area.  
 Environmental hazard       Risk  
 Vulnerability       Elements at risk (E)
- Meteoroids are generally exploded in an aerial burst in the atmosphere at an altitude between \_\_\_\_\_ km, or collide with earth.  
 15 and 80       12 and 50       30 and 70       50 and 90
- \_\_\_\_\_ is degree of loss (range from 0%, no damage to 100%, total loss).  
 Environmental hazard       Risk  
 Vulnerability       Elements at risk (E)
- \_\_\_\_\_ is the mixing of sand or soil and groundwater during the shaking of a moderate or strong earthquake.  
 Liquiation       Liquefaction       Liquilization       Liquefraction
- An event of June 30, 1908, shortly after 7am in Siberia, Observing a blue-white fireball with a glowing tail descending from the sky is known as \_\_\_\_\_.  
 The Tunguska event       The fireball event  
 The Yellow stone event       The Tung Tista event
- Drought can occur by improper distribution of \_\_\_\_\_ in time and space, and not just by its amount.  
 flood       rain       snowfall       dust
- \_\_\_\_\_ are like small tsunamis.  
 Seiches       Sesiches       Schiie       Shichite

10. A localized depression in the surface topography, usually caused by the collapse of a subterranean structure, such as a cave is  
 Sinkhole       Sinkhole       Sinkhole       Holesink
11. An outbreak of a contractible disease that spreads at a rapid rate through a human population \_\_\_\_\_.  
 Epidemic       NAET       Meningitis       Tetanus
12. Frozen water and/or carbon dioxide plus small rock fragments and dust like a "dirty snowball" core is called \_\_\_\_\_.  
 Comet       Meteorite       Meteor       Asteroid
13. There were more than 73,000 snow shoveling-related injuries treated at hospital emergency rooms, doctors' offices and clinics in each year in \_\_\_\_\_.  
 Canada       US       Nepal       India
14. Mathematics, that has been set by the Indian Meteorological Division (IMD) for identifying the \_\_\_\_\_.  
 drought       volcano       earthquake       landslide
15. \_\_\_\_\_ is a phenomenon where the sun suddenly releases a great amount of solar radiation, much more than normal.  
 Solar storm       Solar flare       Solar blizzard       Solar tornado
16. The term Tsunami has been derived from a \_\_\_\_\_ term Tsu meaning 'harbor' and nami meaning 'waves'.  
 Chinese       Japanese       American       Italian
17. The PTWC is able to alert countries several hours before the \_\_\_\_\_ strikes.  
 landslide       volcano       earthquake       tsunami
18. Wild fire scientists and firefighter classify fire behavior according to the layer of \_\_\_\_\_ that is allowing the fire spread.  
 soil       fuel       rain       wind
19. The second main earthquake hazard is ground displacement (ground movement) along a \_\_\_\_\_.  
 fold       coast       ridge       fault
20. A meteoroid entering the atmosphere at about \_\_\_\_\_ km above Earth's surface will become a meteor with emitting the light.  
 65       75       85       95

**SECTION "B"**

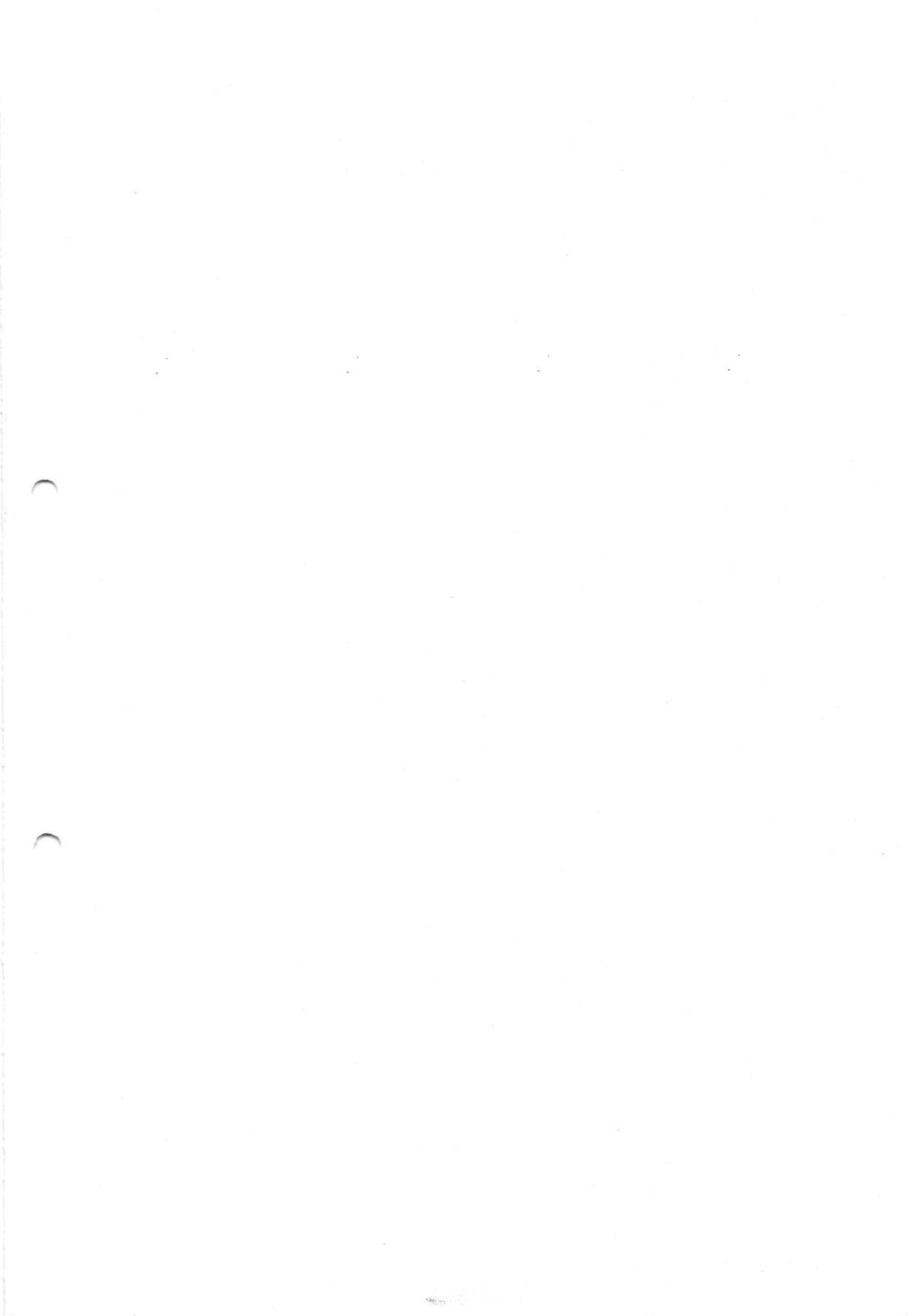
[20Q. × 0.5 = 10 marks]

**Mark "T" for true and "F" for false.**

21. In 1995 the US National Oceanic and Atmospheric Administration (NOAA) began developing the Deep Ocean Assessment and Reporting of Tsunami (DART) system.

26 APR 2023

22. Astronomers group Asteroids, Meteoroids, and Comets on the basis of diameter and composition. [ ]
23. On a yearly basis, 70 to 75 damaging volcanoes occur throughout the world. [ ]
24. Local tsunami events or those less than 30 minutes from the source cause the majority of damage. [ ]
25. A supervolcano is an eruption which is thousands of times lesser than a normal eruption. [ ]
26. Social drought is form of drought occurs when moisture level in soil is insufficient to maintain average crop yields. [ ]
27. An earthquake is a sudden, rapid shaking of the Earth caused by the breaking and shifting of soil beneath the Earth's surface. [ ]
28. There are a significant number of meteorite craters on the surface of Earth, and more than 170 have been identified. [ ]
29. Drought is basically caused by deficit rainfall, which is a meteorological phenomenon. [ ]
30. During a wildfire, plant tissue and other organic material is rapidly oxidized and broken down by combustion, or burning. [ ]
31. Most of the hazards to people come from disasters are caused by natural structures itself. [ ]
32. Anthropogenic hazard is a threatening event, or the probability of occurrence of a potentially damaging phenomenon naturally within a given time period and an area. [ ]
33. Drought is negative balance between precipitation and water use (through evaporation, transpiration by plants, domestic and industrial uses etc) in a geographical region. [ ]
34. The tsunamis travel much slower than ordinary waves. [ ]
35. Snow shoveling can pose threats to the leg and knee, if proper precautions are not taken. [ ]
36. Source of infection is more likely to be the killed people than survivors by the natural disaster. [ ]
37. Sudden numbers of dead bodies in the disaster-affected area can fuel fears of outbreaks. [ ]
38. The first main volcano hazard is the effect of ground shaking. [ ]
39. The state of Bihar in India which receives more than 3000 mm of rainfall every year is declared drought affected as it is insufficient to have two good crops. [ ]
40. Wildfire is a self-sustaining, rapid, high-temperature biochemical oxidation reaction that releases heat, light and other products. [ ]



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Semester : I  
F. M. : 55

SECTION "C"  
[3Q. × 7 = 21 marks]

Attempt *ANY THREE* questions.

1. If your home village is close to a forest, how will you manage the wildfire hazards during dry season? Make a list of actions you can undertake to protect yourself as well as your home and community.
2. Why is natural disaster management important for maintaining Earth's environmental sustainability? Discuss challenges for effective management in developing countries like Nepal.
3. Discuss different ways of prevention of communicable diseases during post disaster management phase.
4. What is a seismic hazard? What could we do for minimizing impacts and damages if an earthquake similar in intensity to Gorkha Earthquake 2015 occurs again? Please write precisely.

SECTION "D"

5. Write short note on (*ANY FOUR*) [4 Q. × 4 = 16 marks]
  - a. Techniques of assessment in disaster response phase
  - b. Mitigation measures for flood during monsoon
  - c. Poverty and vulnerability
  - d. Role of information dissemination in disaster management
  - e. Atmospheric Hazards
6. Differentiate between (*ANY FOUR*) [4 Q. × 3 = 12 marks]
  - a. Reconstruction and Relief
  - b. Meteor and comet
  - c. Hazard and total risk
  - d. Snowfall and Blizzards
  - e. Creep and Slump
7. Discuss in the following terms (*ANY THREE*) [3 Q. × 2 = 6 marks]
  - a. Tornado
  - b. Post flood impacts
  - c. Impact Hazards
  - d. Drought mathematics

