PRESIDENCY UNIVERSITY
BENGALURU

SCHOOL OF ENGINEERING

TEST 1 EXAMINATION

Even Semester: 2021 - 22

Course Code: CIV 1001

Course Name: Disaster Management and Mitigation

Program & Sem: B. Tech & VI Sem

Date: 27th April 2022

Time: 10:00 AM to 11:00 AM

Max Marks: 30

Weightage: 15 %

Instructions:

(i) Read the all questions carefully and answer accordingly.

Part A [Memory Recall Questions]

Answer all the Questions. Each question carries 2 marks. **(5Qx 2M= 10M)**

Q.NO.1. Hazard is any substance, phenomenon or situation, which has the potential to cause disruption. Identify among the four alternatives which is an example for hazard.

a) Climate change   b) Loss of life   c) Destruction of property   d) All of the above

[2M] (C.O No.1) [Knowledge]

Q.NO.2. Cyclones are caused by atmospheric disturbances around a low-pressure area distinguished by swift and often destructive air circulation. What is the magnitude of basic wind speed of category I cyclone.

a) 150-180 kmph   b) 120-150 kmph   c) 180-210 kmph   d) 210-250 kmph

[2M] (C.O No.1) [Knowledge]

Q.NO.3. Most of the floods occur during the monsoon period and are usually associated with tropical storms or depressions, active monsoon conditions and break monsoon situations. Identify among the four alternatives, which is not the reasons of flood occurrence.

a) Deforestation   b) Population pressure   c) Loss of livestock   d) Silting of surface water bodies

[2M] (C.O No.1) [Knowledge]

Q.NO.4. The location below the earth's surface where the earthquake starts is called the focus, with respect to the seismic zone map of India which zone is very high risk zone area liable to shaking intensity IX and above.

a) Zone II   b) Zone III   c) Zone IV   d) Zone V

[2M] (C.O No.1) [Knowledge]

Q.NO.5. Wildfires occur when vegetated areas are set alight and are particularly common during hot and dry periods. Identify among the following which is the impact of wildfires.

a) Loss of valuable timber resources   b) Degradation of catchment areas

c) Global warming   d) all the above

[2M] (C.O No.1) [Knowledge]

Part B [Thought Provoking Questions]

Answer all the Questions. Each question carries 3 marks.   **(4Qx3M=12M)**

Q.NO.6. India is highly vulnerable to floods, droughts, cyclones, earthquakes, landslides, avalanches and forest fires. Out of 35 states and union territories in the country, 27 of them are disaster prone. Discuss the factors affecting Disaster in India.   [3M] (C.O.No.1) [Comprehension]

Q.NO.7. India's 58.6 per cent of the landmass is prone to earthquakes of moderate to very high intensity; over 40 million hectares (12 per cent of land) are prone to floods and river erosion. Classify the different types of Disasters.   [3M] (C.O.No.1) [Comprehension]

Q.NO.8. A flood is a condition that occurs when water overflows the artificial or natural boundaries of a stream, river, or other body of water onto normally dry land. Explain the causes of Occurrence of floods.   [3M] (C.O.No.1) [Comprehension]

Q.NO.9. The location below the earth's surface where the earthquake starts is called the focus, and the location directly above it on the surface of the earth is called the epicenter. Indicate any six major earthquake disasters in India.   [3M] (C.O.No.1) [Comprehension]

Part C [Problem Solving Questions]

Answer both the Questions. Each question carries 4 marks.   **(2Qx4M=8M)**

Q.NO.10. Landslide refers to the downward sliding of huge quantities of land mass which occur along steep slopes of hills or mountains and may be sudden or slow. Illustrate the Impacts of Landslides and the landslide profile of India.   [4M] (C.O.No. 1) [Application]

Q.NO.11. A nuclear and radiation accident is defined by the International Atomic Energy Agency (IAEA) as "an event that has led to significant consequences to people, the environment or the facility". List the causes of nuclear accident and illustrate any two of the causes of nuclear accident.

[4M] (C.O.No. 1) [Application]

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SCHOOL OF ENGINEERING

TEST 2 EXAMINATION

Even Semester: 2021 - 22

Course Code: CIV 1001

Course Name: Disaster Management and Mitigation

Program & Sem: B. Tech & VI Sem

Date: 2nd June 2022

Time: 10:00 AM to 11:00AM

Max Marks: 30

Weightage: 15 %

Instructions:

(i)   Read the all questions carefully and answer accordingly.

Part A [Memory Recall Questions]

Answer all the Questions. Each question carries ONE mark.   **(6Qx1M= 6M)**

Q.NO.1. Which of the following is not included in Geo-informatics?   (C.O No.2) [Knowledge]

a) Geodesy   b) Remote Sensing c) Internet of Things d) GIS

Q.NO.2. NDMA refers to _____and IDRN stands for _____.   (C.O No.2) [Knowledge]

Q.NO.3. Disaster Management cycle doesn't include the following.

a) Recovery from disaster

 b) Rehabilitation of communities

c) Preparedness for disaster

d) Elimination of disaster.   (C.O No.2) [Knowledge]

Q.NO.4. Which of the following is responsible for managing inventory of equipment, skilled human resources and critical supplies for emergency response during disaster?

a) NDEM   b) NIDM   c) IDRN   d) Bhuvan, NRSC   (C.O No.2) [Knowledge]

Q.NO.5. DDMP stands for _____.   (C.O No.2) [Knowledge]

Q.NO.6. Which of the following is an initiative of Indian government for promoting the use of ICT for disaster management?

a) NRSC   b) NIDM   c) IDRN   d) IMD   (C.O No.2) [Knowledge]

Part B [Thought Provoking Questions]

Answer both the Questions. Each question carries FIVE marks.   (2Qx5M=10M)

Q.NO.7. Geoinformatics is a relatively new technology when it comes to assisting disaster management. It is the science and the technology which develops and uses information science infrastructure to address the problems of geographical sciences. Define the five components of geo-informatics and list any two applications in managing natural disasters such as floods and cyclones.

(C.O.No.2) [Comprehension]

Q.NO.8. Information Communication and Technology provides an effective means in disaster monitoring and warning systems. Telephone, Mobile SMS services, Internet and Social media all are the examples of ICT interventions that can be efficient in disaster management. List any two advantages of using ICT tools for disaster management. Also, discuss the Initiatives taken by the Government of India in this regard.   (C.O.No.2) [Comprehension]

Part C [Problem Solving Questions]

Answer both the Questions. Each question carries SEVEN marks.   (2Qx7M= 14M)

Q.NO.9. Disaster monitoring is the application of solutions to an uncertain and changing set of challenges. It is a continuous process that evaluates the progress of various programs by constant monitoring of the physical, social and economic environments. Identify any four tools and techniques that assists in disaster monitoring and explain their functional working in detail.

(C.O.No.2) [Application]

Q.NO.10. Disaster management is conceptualized as an applied science which seeks, by the systematic observation and analysis of disasters, to improve measures relating to prevention, mitigation, preparedness, emergency response and recovery. It works towards organizing the activities and implementing remedial measures during or after disaster in order to provide timely relief and mitigate the impacts. In this regard, discuss the principles of disaster management.

(C.O.No. 2) [Application]

PRESIDENCY UNIVERSITY
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SCHOOL OF ENGINEERING

END TERM EXAMINATION

Winter Semester: 2021 - 22

Course Code: CIV 1001

Course Name: Disaster Management and Mitigation (OE-I)

Program & Sem: B.Tech – VI Sem

Date: 1st July 2022

Time: 9:30 AM to 12:30 PM

Max Marks: 100

Weightage: 50%

Instructions:

(i)   Read the all questions carefully and answer accordingly.

Part A [Memory Recall Questions]

Answer all the Questions. Each question carries TWO marks.   (12Qx 2M= 24M)

1. Hazard is any substance, phenomenon or situation, which has the potential to cause disruption. Identify among the four alternatives, which Country has the highest number of Natural Disaster in the year 2000-2019.
a) USA   b) India   c) Indonesia   d) China
(C.O No.1) [Knowledge]

2. Cyclones are caused by atmospheric disturbances around a low-pressure area distinguished by swift and often destructive air circulation. What is the magnitude of basic wind speed of category IV cyclone?
a) 150-180 kmph   b) 120-150 kmph   c) 180-210 kmph   d) 210-250 kmph
(C.O No.1) [Knowledge]

3. Most of the floods occur during the monsoon period and are usually associated with tropical storms or depressions, active monsoon conditions and break monsoon situations. Identify among the four alternatives, which is the reasons of flood occurrence.
a) Deforestation   b) Population pressure   c) Silting of surface water bodies   d) All of the above
(C.O No.1) [Knowledge]

4. The location below the earth's surface where the earthquake starts is called the focus, with respect to the seismic zone map of India in which zone Bhuj place in the Gujarat state comes.
a) Zone II   b) Zone III   c) Zone IV   d) Zone V
(C.O No.1) [Knowledge]

5. Wildfires occur when vegetated areas are set alight and are particularly common during hot and dry periods. Identify among the following which is not an impact of wildfires.
 a) Loss of valuable timber resources   b) Degradation of catchment areas
 c) Global warming   d) Low humidity   **(C.O No.1) [Knowledge]**

6. _____the type of geospatial technology that uses electromagnetic (EM) radiation from the Earth's terrestrial, atmospheric, and aquatic ecosystems in order to detect and monitor the physical characteristics of an area without making physical contact. Identify among the following:
a) Remote Sensing   b) GIS   c) IOT   d) All of the above
(C.O No.2) [Knowledge]

7. Hazard is any substance, phenomenon or situation, which has the potential to cause disruption. Identify among the following, which is Geological related disasters.

a) Landslides   b) Earthquakes

c) Dam failures   d) All of the above   **(C.O No.1) [Knowledge]**

8. The Smart sensors can be attached to buildings, bridges, and other places and these devices gather and analyze data to help in monitoring seismic activities. Identify the ICT Tool among the four alternatives.

a) Remote Sensing   b) IOT   c) GIS   d) Drone

(C.O No.2) [Knowledge]

9. Identify the ICT used in Flood prevention – to identify flood risks, topographic patterns and predict flood movement and intensity in specific locations.

a) IOT   b) Remote sensing   c) GIS   d) Drone

(C.O No.2) [Knowledge]

10. Identify among the four alternatives indicated below in the Disaster management cycle, _____ measures are usually taken immediately prior to and following disaster impact.

a) Recovery   b) Mitigation   c) Preparation   d) Response

(C.O No.2) [Knowledge]

11. The National Disaster Management Authority (NDMA) has been set up as the apex body for Disaster Management in India. Who is the chairman of NDMA?

a) The Prime Minister   b) The home minister

c) The President   d) the chief Justice   **(C.O No.2) [Knowledge]**

12. Identify the Nodal Agencies for Disaster Management in regards to the earthquakes.

a) Department of Mines   b) Indian Metrological Department

c) Central water commission   d) none of these   **(C.O No.2) [Knowledge]**

Part B [Thought Provoking Questions]

Answer all the Questions. Each question carries TEN marks.   **(4Qx10M= 40M)**

13. India's 58.6 per cent of the landmass is prone to earthquakes of moderate to very high intensity; over 40 million hectares (12 per cent of land) are prone to floods and river erosion. Describe in detail the different types of Disasters.   **(C.O.No.1) [Comprehension]**

14. The District is primarily responsible for the management of natural and human-caused disasters identified above at the District level and has a shared responsibility with the State Government for preparedness and for identified catastrophic disasters. What is full form of DDMP? Discuss objectives of DDMP.   **(C.O.No.2) [Comprehension]**

15. Role of Remote sensing, ICT Tools and GIS for Disaster Monitoring and Management is significant. Discuss in detail the different Mobile Apps Developed by National Remote Sensing Centre to deal with disaster monitoring.   **(C.O.No.2) [Comprehension]**

16. The National Disaster Management Authority (NDMA) has been set up as the apex body for Disaster Management in India. Discuss in detail the Key Phases of Disaster Management.

(C.O.No.3) [Comprehension]

Part C [Problem Solving Questions]

Answer all the Questions. Each question carries TWELVE marks.   **(3Qx12M= 36M)**

17. A nuclear and radiation accident is defined by the International Atomic Energy Agency (IAEA) as "an event that has led to significant consequences to people, the environment or the facility". Illustrate in detail the causes of nuclear accident.   **(C.O.No. 1) [Application]**

18. Disaster monitoring is a continuous process that evaluates the progress of various programs by constant monitoring of the physical, social and economic environments. Illustrate with case studies the use of ICT in Disaster Management in India.   **(C.O.No. 2) [Application]**

19. Disaster Management is an applied science which seeks, by the systematic observation and analysis of disasters, to improve measures relating to prevention, mitigation, preparedness, emergency response and recovery. Illustrate in detail the Cycle of Disaster Management Process.

(C.O.No. 3) [Application]