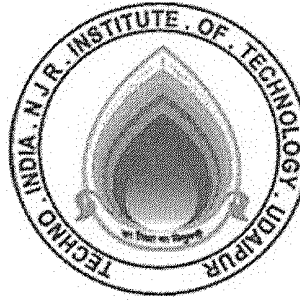


Techno India NJR Institute of Technology



Course File

Session 2021-22

DISASTER MANAGEMENT (7CE6-60.2)

Lokesh Malviya
(Assistant Professor)

For Techno India N.J.R. Institute of Technology
Department of MIT
लोकेश मलविया
Dr. Pankaj Kumar Perwal
(Principal)



RAJASTHAN TECHNICAL UNIVERSITY, KOTA

Open Electives Syllabus

7CE6-60.2 DISASTER MANAGEMENT (Open Elective-II)

Credit 3

3L+0T+0P

Max. Marks: 150(IA:30, ETE:120)

End Term Exam: 3Hours

SN	Contents	Hours
1	INTRODUCTION: Objective, scope and outcome of the course	1
2	Understanding Disaster: Concept of Disaster - Different approaches-Concept of Risk -Levels of Disasters - Disaster Phenomena and Events (Global, national and regional) Hazards and Vulnerabilities: Natural and man-made hazards; response time, frequency and forewarning levels of different hazards - Characteristics and damagepotential or natural hazards; Types of disasters- floods, cyclones, lightening, thunderstorms, hailstorms, avalanches, droughts, cold and heat waves, epidemics, pest attacks, forest fire, chemical, industrial, radiological and nuclear disasters, building collapse, rural and urban fire, road and rail accidents etc.	8
3	Hazard assessment - Dimensions of vulnerability factors; vulnerability assessment -Vulnerability and disaster risk - Vulnerabilities to flood and earthquake hazards Disaster Management Mechanism: Concepts of risk management andcrisismanagements-DisasterManagementCycle- Response and Recovery - Development, Prevention, Mitigation and Preparedness - Planning for Relief	8
4	Capacity Building: Capacity Building: Concept - Structural and Non-structural Measures Capacity Assessment; Strengthening Capacity for Reducing Risk - Counter-Disaster Resources and their utility in Disaster Management - Legislative Support at the stateand national levels	8
5	Coping with Disaster: Coping Strategies; alternative adjustmentprocesses - Changing Concepts of disaster management - Industrial Safety Plan; Safety norms and survival kits -Mass media anddisaster management	7
6	Planning for disaster management: Strategies for disaster management planning - Steps for formulating a disaster riskreduction plan - Disaster management Act and Policy in India -Organizational structure for disaster management in India -Preparation of state and district disaster management plan. Case studies: Natural and man-made disasters,preparedness and planning.	8
Total		40

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Course Overview:

The course is intended to provide a general concept in the dimensions of disasters caused by nature beyond the human control as well as the disasters and environmental hazards induced by human activities with emphasis on disaster preparedness, response and recovery.

The course focuses on natural disasters the problem is addressed in a holistic cross-sectoral and cross-disciplinary manner, including all stages of disaster management cycle: mitigation, preparation, response and recovery. Starting with theory, main definitions and concepts, the course considers other aspects of Disaster Management cycle along with Local National & State policies, to counter disaster, as per act of 2005.

Course Outcomes:

Co No	Cognitive Level	Course Outcome
1	Comprehension	Student will be able to categorize the different types of disaster and their characteristics
2	Application	Students will be able to make an Evaluation of hazard and vulnerability
3	Analysis	Students will be able to outline the concept of capacity building and strengthening capacity to reduce disaster risk
4	Analysis	Students will be able to write Disaster coping strategies, industrial safety plan, safety norms, mass media and disaster management
5	Application	Students will be able to describe Planning in disaster management, formulating risk reduction plan and to understand act and polices in India

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Course Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO1 2	PSO 1	PSO 2	PSO 3
CO36402 .1	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0
CO36402 .2	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0
CO36402 .3	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0
CO36402 .4	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0
CO36402 .5	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0

Lecture No	Unit No.	Topic
1	1	INTRODUCTION: Objective, scope and outcome of the course
2	2	Understanding Disaster: Concept of Disaster - Different approaches- Concept of Risk -Levels of Disasters
3	2	Disaster Phenomena and Events (Global, national and regional) Hazards and Vulnerabilities
4	2	Natural and man-made hazards; response time, frequency and forewarning levels of different hazards
5	2	Characteristics and damage potential or natural hazards
6	2	Types of disasters- floods, cyclones, lightning, thunderstorms
7	2	Types of disasters-hailstorms, avalanches, droughts, cold and heat waves
8	2	Types of disasters- epidemics, pest attacks, forest fire, chemical, industrial
9	2	Types of disasters- radiological and nuclear disasters, building collapse, rural and urban fire, road and rail accidents.
10	3	Hazard assessment - Dimensions of vulnerability factors
11	3	Hazard assessment - vulnerability assessment
12	3	Hazard assessment - Vulnerability and disaster risk assessment
13	3	Hazard assessment - Vulnerabilities to flood and earthquake hazards
14	3	Disaster Management Mechanism: Concepts of risk management and crisis managements
15	3	Disaster Management Mechanism: Disaster Management Cycle- Response and Recovery
16	3	Disaster Management Mechanism: Development, Prevention, Mitigation and Preparedness - Planning for Relief
17	3	Disaster Management Mechanism: Development, Prevention, Mitigation and Preparedness - Planning for Relief (b)

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18	4	Capacity Building: Concept - Structural and Non-structural Measures
19	4	Capacity Building: Concept - Structural and Non-structural Measures (b)
20	4	Capacity Assessment
21	4	Strengthening Capacity for Reducing Risk Counter
22	4	Strengthening Capacity for Reducing Risk Counter-Disaster Resources
23	4	Utility of Capacity assessment in Disaster Management
24	4	Legislative Support at the state and national levels in Disaster Management.
25	5	Coping Strategies for disaster management.
26	5	Alternative adjustment processes
27	5	Changing Concepts of disaster management with time.
28	5	Industrial Safety Plan for DM
29	5	Safety norms for Industries
30	5	Safety norms and survival kits
31	5	Mass media and disaster management
32	6	Strategies for disaster management planning Steps for formulating a disaster risk reduction plan.
33	6	Strategies for disaster management planning Steps for formulating a disaster risk reduction plan. (b)
34	6	Act and Policy in India
35	6	Disaster management Act and Policy in Organizational structure for disaster management in India
36	6	Preparation of state and district disaster management plan.
37	6	Case studies: Natural and man-made disasters, preparedness and planning.
38	6	Case studies: Natural and man-made disasters, preparedness and planning.
39	6	Case studies: Natural and man-made disasters, preparedness and planning.
40	6	Case studies: Natural and man-made disasters, preparedness and planning.

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Text / Reference Books:	
1	D B N Murthy Disaster Management: Text & Case Studies, Deep & Deep Pvt.Ltd.
2	S L Goel, Encyclopedia of Disaster Management, Deep & Deep Pvt. Ltd.
3	G K Ghosh, Disaster Management, A P H Publishing Corporation.
4	Satish Modh, Citizen's Guide to Disaster Management Macmilan.
5	Manual on Disaster Management, National Disaster Management, AgencyGovt of India.
6	Disaster Management by Mrinalini Pandey Wiley 2014.
7	Disaster Science and Management by T. Bhattacharya, McGraw Hill Education (India) Pvt Ltd Wiley 2015

<https://cdn.s3waas.gov.in/s365658fde58ab3c2b6e5132a39fae7cb9/uploads/2018/04/2018041720.pdf>

NPTEL Courses:

1. NPTEL :: Architecture - NOC:Disaster Recovery And Build Back Better
2. NPTEL :: Civil Engineering - NOC:Natural Hazards - Part-1

Teaching and Learning resources:

Unit 1

INTRODUCTION: Objective, scope and outcome of the course.

- <https://youtu.be/OSbSSqNkMW4>
- <https://publichealthdisasters.eu/objectives-and-learning-outcomes/>

DISASTER PREPARADNESS

- <https://youtu.be/KwAKjtkpdP4>
- <https://www.ifrc.org/disaster-preparedness>

Unit 2

Natural Disaster

- <https://youtu.be/OSbSSqNkMW4>
-

https://en.wikipedia.org/wiki/Natural_disaster#:~:text=A%20natural%20disaster%20is%20a,storms%2C%20and%20other%20geologic%20processes.

Man Made Disaster

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- <https://youtu.be/NJixgVxTB7I>
- <https://www.monroecounty-fl.gov/904/Man-Made-Disaster>

Unit 3:

Hazard Assessment:

- <https://mmrjournal.biomedcentral.com/articles/10.1186/s40779-015-0059-9>
-

<http://environmentclearance.nic.in/writereaddata/Online/RiskAssessment/220620160Q65ZGCEAnnexure-RiskAssessment.pdf>

Unit 4:

Capacity Building:

- <https://ndma.gov.in/about-us/division/Capacity-Building>

Unit 5:

Coping With Disaster:

- <http://www.cahsd.org/wp-content/uploads/2017/08/Coping-with-Disaster.pdf>
-

https://www.researchgate.net/publication/312893271_Coping_strategies_preparedness_and_emergency_response_of_char-land_peoples_in_Flood_Disaster_A_case_study_in_Kurigram_Bangladesh

Unit 6:

Planning for Disaster Management:

-

<https://cdn.s3waas.gov.in/s365658fde58ab3c2b6e5132a39fae7cb9/uploads/2018/04/2018041720.pdf>

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Course Level Problems (Test Items):

CO.NO.	Problem description
1	A. Discuss major issues involved in disaster preparedness, B. Highlight development perspective to disaster management with focus on disaster management in riverine regions. C. Write a note on disaster cycle.
2	A. Define Total Disaster Risk Management Approach and refer to its pertinence for Disaster Management Cycle. B. Sustainable management of natural resources is essential to provide livelihood and environmental security'. Discuss. C. Highlight key environmental concerns pertaining to disasters.
3	A. Analyse the important facets of disaster management in mountainous regions B. Define vulnerability and discuss the process of vulnerability analysis. C. Examine the role of corporate social responsibility as an emerging avenue in managing disasters
4	A. Examine the role of corporate social responsibility as an emerging avenue in managing disasters B. Define vulnerability and discuss the vulnerability profile of India, C. Write a note in brief on important disaster management strategies
5	A. Discuss the important steps in relief distribution, Explain the different types of damages that occur due to disasters. B. The relationship between disaster and development depends on the development choices made by the individual, community and the nation'. Discuss. C. Emergency Operations Centre and Stockpiling practices in disaster management.

Assessment Methodology:

1. Assignments (online/offline mode)
2. Mid-term examination
3. Final exams conducted by the university

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ASSIGNMENT-1

(Introduction to Disaster Management)

Question 1: What do you mean by 'Natural Disaster'? Mention about different types of Natural Disasters?

Question 2: What do you mean by 'Man-made Disaster'? Mention about different types of Man-made Disasters?

Question 3: Give a detailed description about Global warming?

Question 4: Give a detailed description about Earthquakes?

Question 5: Write Short Notes on:

i) Disaster Management Cycle ii) Ozone depletion iii) Air pollution iv) Deforestation v) Water pollution

ASSIGNMENT-2

(Geographical Information System and ICT in Disaster Management)

Question 1: What are the GIS functionalities for end user / system? Write in detail.

Question 2: What are the different ways in which the Energy interacts with the Earth's surface?

Question 3: Write Short Notes on:

i) Remote Sensing application in Disaster Management ii) Tsunami warning System iii) Use of Internet iv) Data storage v) Video conferencing

ASSIGNMENT-3

(Risk Assessment and Vulnerability Analysis)

Question 1: Describe about the role of science and technology in Disaster Risk reduction? Mention about the strategies to be adopted for Risk reduction?

Question 2: Describe about the types of Vulnerability? What are the factors responsible for Vulnerability assessment?

Question 3: What are the methods used in Participatory risk assessment?

Question 4: Describe how vulnerability to shanty settlements is one of the factor for disaster?

Question 5: Write Short Notes on:

i) Risk analysis techniques ii) Role of civil society organizations iii) Impact of Globalization iv) Initiatives for risk reduction v) Hazard resistant designs and construction

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ASSIGNMENT-4

(Disaster Preparedness and Response)

Question 1: Describe about the concept and significance of Disaster Preparedness? What are the measures adopted for Disaster Preparedness?

Question 2: What are the roles of different organizations / institutions in Disaster preparedness plan?

Question 3: Give a detailed description of early warnings and safety measures of disaster to be implemented in Disaster Preparedness plan?

Question 4: What are the basic requirements of Disaster Response Plan?

Question 5: Write Short Notes on:

i) Disaster Preparedness Plan essentials ii) Role of Government and NGOs iii) Essential commodity in Disaster Response iv) Logistic Management in Disaster Response v) Medical Health Response

ASSIGNMENT-5

(Recovery, Rehabilitation and Reconstruction)

Question 1: Describe about the concept and types of Rehabilitation and Reconstruction? How can we make assessment of pre and post disaster conditions?

Question 2: What are the steps to be taken for Rehabilitation? Describe briefly about the role of various agencies in the Rehabilitation process?

Question 3: How physical and economic infrastructures are instrumental in the Reconstruction process?

Question 4: How livelihood restoration can be a part of Recovery?

Question 5: Write Short Notes on:

i) Sample Surveys ii) Aerial photography iii) Earthquake resistant construction technique iv) Mobilization of community for resource generation v) Participative Rehabilitation

ASSIGNMENT-6

(Reporting, Information and Documentation in Disasters)

Question 1: Describe about the types and importance of media? How media is helpful in Disaster mitigation?

Question 2: What are the impacts of Media coverage and Public Communication for Disasters?

Question 3: Differentiate between factual and ethical reporting?

Question 4: How to prepare a research report?

Question 5: Write Short Notes on:

i) Principles of Report writing ii) Main body of Report iii) Tsunami of South India iv) Bhopal Gas Tragedy v) Orissa 1999 Super Cyclone

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Question Bank
Disaster Management
Answer keys are given in Bold letters

1. **Hazards and Disasters** are mainly classified as
 - a. Physical and chemical
 - b. Natural and Human induced**
 - c. Physical and Human
 - d. Social and cultural

2. A **hazard** is a situation where there is
 - a. Threat of natural calamity
 - b. Threat to property and lives from calamities**
 - c. Threat for consequences of disaster
 - d. All of the above

3. **Disaster** is an event arising out of
 - a. Result of hazard event**
 - b. Causes of hazard event
 - c. Causes of disaster event
 - d. All of the above

4. **The typical examples of man-made disasters** are
 - a. Chemical explosion
 - b. Leakage of toxic waste
 - c. War and civil strife
 - d. All of the above**

5. **What are the consequences of disaster on a society?**
 - a. Loss of life
 - b. Damage to property
 - c. Environmental Damages
 - d. All of the above**

6. **The scientific study of earthquake** is called
 - a. Seismograph
 - b. Seismology**
 - c. Both a and b
 - d. None of the above

7. **What is the name of instrument used for measuring earthquake intensity?**
 - a. Modified Mercalli Scale**
 - b. Metrological scale
 - c. Vernier scale
 - d. Barometer

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8. **The primary result of earthquake is**
- Building and bridge collapsed
 - Rapture of water and gas pipelines
 - Change in course of river and creation of new islands
 - All of the above**
9. **What are the major consequences of Tropical cyclones?**
- Fierce wind
 - Heavy rain
 - Storm surge
 - All of the above**
10. **The major man made causes of floods are**
- Deforestation
 - Siltation
 - Bursting of dam
 - All of the above**
11. **Mass killing diseases can be referred as**
- Biological disaster**
 - Industrial disaster
 - War disaster
 - Flood disaster
12. **The term Influenza implies to**
- Groin
 - Flu**
 - Both a and b
 - None of these
13. **Which is the main cause of cholera?**
- Poor sanitation**
 - Floods
 - Air pollution
 - Poor nutrition
14. **The role of which agency is important in disaster prevention.**
- Media**
 - Police
 - Government officials
 - Public
15. **What are the important measures to be taken in community level of disaster preparedness**
- Increased awareness

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- b. Provision of early and timely warning
 - c. Land use planning
 - d. **All of the above**
16. A point on the surface of the earth vertically above the focus is known as
- a. **Epicenter**
 - b. Hypocenter
 - c. Special focus
 - d. None of the above
17. Which instrument is used for recording the occurrences of the earthquake
- a. Richter Scale
 - b. Seismology
 - c. **Seismograph**
 - d. None of the Above
18. Which are in the world witness' highest seismic earthquake activity in the world.
- a. Mid-continental belt
 - b. **Cir-cum Pacific belt**
 - c. Mid-Atlantic belt
 - d. All of the above
19. What type of disaster is most prominent in India?
- a. **Flood**
 - b. Draught
 - c. Cyclone
 - d. Earthquake
20. Which volcanic eruption is responsible for raising temperature of the Northern Hemisphere by 1.2°C?
- a. Bhuj
 - b. Etna
 - c. **Krakatoa**
 - d. Mt. Pinatubo
21. Which are the major controlling systems for reduction of volcanic disaster?
- a. Prediction for early warning of eruption
 - b. Timely evolution and relief work
 - c. **Both a and b**
 - d. None of the above
22. Which techniques are used for prediction of early warning of eruption?
- a. Electric Distance Measures
 - b. Tilt Meters
 - c. GPS and Satellite Inferring Rader
 - d. **All of the above**

23. **Shallow earthquakes, less than 20 km deep are associated with**
- Convergent plate boundaries
 - Divergent plate boundaries
 - Transform plate boundaries
 - All of the Above**
24. **Which of the following disasters can be triggered by an earthquake?**
- Tsunami
 - Intense ground shaking
 - A landslide
 - All of the above**
25. **Which of the following statements is false?**
- Earthquakes occur in plate boundaries
 - The time and location of most major earthquakes can be predicted several days in advance**
 - Earthquakes can be caused by normal, reverse and strike-slip faulting
 - P waves travel faster than both S waves and Surface waves
26. **Volcanic eruptions are closely associated with**
- Mountain building and fracturing
 - Deforestation
 - Landslides**
 - Heat budget
27. **Tropical cyclones originate within**
- Intermediate between Polar and temperate zones
 - Mainly tropical area
 - Mainly equatorial Zones
 - Intermediate between Tropics of Capricorn and cancer**
28. **The centre of the cyclone is characterized by**
- High Pressure
 - Low pressure**
 - Very High Pressure
 - All of the above
29. **Warning about cyclonic disaster is conveyed through**
- Newspaper
 - Radio network
 - Television
 - All of the Above**
30. **The major effects of floods are**
- Physical damage

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- b. Loss of biodiversity
 - c. Scarcity of water supply
 - d. **All of the above**
31. Which of the following agencies are the National Disaster Risk Reduction stakeholders?
- a. Central Government
 - b. National Disaster Offices
 - c. Private Sector
 - d. **All of the above**
32. Structural and Non-structural measures are elements of high category of Risk Reduction measures
- a. Socio-economic measures
 - b. **Physical measures**
 - c. Environmental measures
 - d. Post disaster measures
33. What are the major types oriented to mitigation measures of hazards and disasters?
- a. Public mitigation measures
 - b. Community mitigation measures
 - c. **Both a and b**
 - d. None of the above
34. What are the main prescribed procedures for standard operating?
- a. Search and rescue
 - b. Medical assistance
 - c. Casualty management
 - d. **All of the above**
35. The steps need to be taken for any risk natural or man-made disaster
- a. Proper building construction
 - b. A well planned
 - c. Awareness among the stakeholders
 - d. **All of the above**
36. Disaster management is aimed at-
- a. Resettling people in the closest unaffected urban area
 - b. Collection of valuable data for future management objectives
 - c. Strengthening sewage and drinking water treatment facilities to resist the impact of a future disaster
 - d. **Restoring a community's services, facilities and residence to pre-disaster levels**
37. The major risk associated with overcrowding is
- a. Proliferation of mosquito breeding sites
 - b. Heightened exposure to decaying matter

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- c. Creation of nuisance problems
- d. Increase in diarrhoeal disease

38. The first phase of environmental health management begins

- a. Long before a disaster strikes
- b. When a disaster strikes
- c. Within the first three hours after the disaster has struck
- d. After the warning period

39. The most essential item that the disaster-stricken populations must be provided with is

- a. Shelter material
- b. Drinking water
- c. Fuel
- d. All of the above

40. An essential to the sanitary maintenance of a latrine is

- a. Sufficient supply of water
- b. Supply of latrine construction materials
- c. Health education program in latrine usage and upkeep
- d. All of the above

41. Besides testing the quality of the food itself, inspections should be made to determine the cleanliness of-

- a. Premises where food is handled and prepared
- b. Washing facilities
- c. Food storage facilities
- d. All of the above

42. The NH-44 (presently 8) is affected by which hazard

- a. Floods
- b. Earthquake
- c. Landslide
- d. All of the above

43. "Kalbaisakhi" is a kind of thunderstorm witnessed in the states of

- a. Nagaland, Tripura and Sikkim
- b. Mizoram, Assam and Manipur
- c. Assam, Tripura and West Bengal
- d. West Bengal, Manipur and Mizoram

44. Which body in the state of Tripura can declare an emergency in case of a state-level disaster?

- a. TDMA
- b. SEC
- c. Department of Public Works

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d. Department of minister

45. What are the major Hazard/disaster management related activities?

a. Preparedness

b. Response

c. Recovery

d. All of the above

46. What are the roles of NGOs in disaster related preparedness stage?

a. Public awareness and education

b. Vulnerability and risk assessment

c. Forming and training DNTs, introducing alternative technologies

d. All of the above

47. Who shall be the first responders in disaster management situation?

a. Central Government

b. Community

c. Local Government

d. State Government

48. Mock drill exercise to create awareness among people are conducted at

a. State level

b. District level

c. GP/Village level

d. All of the above

49. The presence of

high hill ranges with alternate valleys in Tripura is much similar to the "ridge-Vale topography" of

a. The Manipur hills

b. The Alps of Europe

c. The Appalachian region of USA

d. The Eastern Ghat of India

50. The North-East India is seismically one of the six most active regions of the world along with the other five zones of

a. Mexico, Taiwan, California, Japan and Turkey

b. Taiwan, Mexico, Australia, New Zealand and Syria

c. Japan, Taiwan, China, South Korea and North Korea

d. Turkey, Japan, Vietnam, Laos and Cambodia

51. Example of anthropogenic hazards are:

(a) Chemical explosion

(b) Earthquake

(c) Flood

(d) Wildfire

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52. The cyclone that hit Odisha on October 29, 1999 is an example of

- (a) Supercyclone
- (b) Silent cyclone
- (c) Cyclone storm
- (d) None

53. The human factors which cause floods are:

- (a) Deforestation
- (b) Heavy rainfall
- (c) Cloudburst
- (d) Large catchment area

54. The Bhopal gas tragedy is an example of:

- (a) Industrial disasters
- (b) Natural disasters
- (c) Nuclear disasters
- (d) None

55. Pandemic disease is defined as:

- (a) Outbreak of disease in international scale
- (b) Outbreak of disease beyond the area of disease
- (c) congestion in urban areas.

56. An epidemic plague which occurred in Surat, Gujarat in 1994 is:

- (a) Pandemic disease hazards
- (b) Epidemic disease hazards
- (c) Industrial hazards
- (d) None of the above

57. Cyclones in the Caribbean islands are known as:

- (a) Typhoon
- (b) Hurricanes
- (c) Tornadoes
- (d) Storm

58. Industrial hazards come under the category of:

- (a) Natural hazards
- (b) Human induced hazards
- (c) Meteorological hazard
- (d) Wild fire hazard

59. Pandemic diseases include:

- (a) Cholera
- (b) Smallpox
- (c) Tuberculosis

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(d) All of the above

60. Tropical cyclone, drought, wildfire is:

- (a) Industrial hazard
- (b) Man induced hazard
- (c) Meteorological hazard
- (d) Hydrological hazard

61. Earthquake is a:

- a) Geophysical disaster
- (b) Hydrological disaster
- (c) Meteorological disaster
- (d) Compound disaster

62. Tropical cyclone, drought, wildfire is:

- (a) Industrial hazard
- (b) Man induced hazard
- (c) Meteorological hazard
- (d) Hydrological hazard

63. Disaster at Chernobyl (USSR), Three Mile Island (USA), and Fukushima (JAPAN) are all related to:

- (a) Disaster caused by earthquake
- (b) Disaster caused by tsunami
- (c) Nuclear disaster
- (d) Epidemic disaster

64. The disease that swept a large part of Asia, Europe and Africa in the 14th century is:

- (a) Plague
- (b) Smallpox
- (c) Tuberculosis
- (d) Influenza

65. Zika virus is related to:

- (a) Dengue
- (b) Yellow fever
- (c) Japanese encephalitis
- (d) All the Above.

66. 2001 Terrorist attack in America is referred as: (a) 9

/11

(b) 11/9 (c)

) 10/11 (d)

11/01

67. Example of Civil War is:

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- (a) Syrian War
- (b) World War I & II
- (c) Kargil War
- (d) Vietnam-US War.

68. H1N1 virus is:

- (a) Bird flu
- (b) Swine flu
- (c) Cattle flu
- (d) None of the above.

69. Engineering disaster is simply referred to those disasters when it is caused by an engineering failure like—

- (a) Design flaws or materials failures
- (b) Insufficient knowledge or underestimations
- (c) Carelessness or negligence
- (d) All the above.

70) The epicenter of the earthquake of the magnitude of 5.7 which occurred on the 3rd of Jan, 2017 in Tripura was located at:

- a) Dhalai District
- b) West District
- c) North District
- d) Gomati District

71) Raima and Sarma are the tributaries of:

- a) Muhuri
- b) Gomati
- c) Khowai
- d) Haora

72) The National Highway which passes through Tripura is:

- a) 4
- b) 2
- c) 8
- d) 12

73) The Chairman of the Tripura Disaster Management Authority is:

- a) Chief Secretary
- b) District Magistrate
- c) Chief Minister
- d) BDO

74) The highest peak of Tripura is:

- a) Betling Sib
- b) Jarimura

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- c) Sakhan
- d) Longtarai

75. The total geographical area of Tripura is:

- a) 183.5sq.km
- b) 10,491sq.km**
- c) 8152sq.km
- d) 1200sq.km

76) Man-made disasters include:

- a) Wars
- b) Terrorism
- c) Industrial hazard
- d) All of the above**

77. Mount Kilimanjaro is the best example of:

- a) Active volcano
- b) Dormant volcano**
- c) Extinct volcano
- d) None of them

78. The river which causes tremendous floods in Assam is

- (a) Ganga
- (b) Brahmaputra
- (c) Godavari
- (d) Barak**

79. Below average rainfall for a prolonged period of time is called

- (a) Famine
- (b) Drought
- (c) Flood**
- (d) None of these

80. Flood can be controlled by:

- a) Afforestation
- (b) Construction of dam
- (c) Both a & b**
- (d) None of these

81. What is it called when a large number of people in a community get a disease at the same time?

- a) Influx
- (b) Black death
- (c) Epidemic**
- (d) Parasite

82. Disaster management covers-

- a) Maintaining control over disasters
- b) Reducing the effects of disasters
- c) Briefing of govt. Officials about disasters
- d) All the above

83. The primary goal of a disaster preparedness plan is:

- a) To protect the population
- b) To protect valuable resources
- c) To keep communications lines open
- d) To protect environmental health personnel

84. Which of the following lead to earthquakes:

- a) Movement of plates
- b) Nuclear explosion
- c) Extraction of minerals
- d) All of the above

85. In the eye of the cyclone the temperature is:

- a) Highest
- b) Lowest
- c) Normal
- d) Average

86) Ebola virus disease first appeared in the year:

- a) 1976
- b) 1967
- c) 1956
- d) 1926

87. Disaster Management includes:

- a. Mitigation
- b. Reconstruction
- c. Rehabilitation
- d. All of the above

88. Andhra Pradesh was severely battered by a cyclonic storm which killed more than 10,000 lives on?

- a. 15-11-1977
- b. 15-11-1971
- c. 15-11-1963
- d. 15-11-1945

89. Tsunami's can occur only during?

- a. Evening
- b. Afternoon

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- c. Anytime in day or night
- d. Morning

90. United Nations Disaster Management Team is responsible for solving problem resulting from disaster in?

- a. Asia
- b. Australia
- c. Africa
- d. In all continents

91. How many of 35 Indian States and Union Territories are disaster prone?

- a. 23
- b. 25
- c. 12
- d. 27

92. Number of human lives lost during 1980-2010 due to natural and induced hazards in India?

- a. 1,42,265
- b. 1,56,897
- c. 1,43,039
- d. 1,23,987

93) National Institute of Disaster Management is at

- a. Manipur
- b. Punjab
- c. Hyderabad
- d. New Delhi

94. The term 'disaster' is derived from which of the following language?

- a. Greek
- b. Latin
- c. French
- d. Arabic

95. Earthquakes and tsunamis constitute disaster percentage = ..?

- a. 8%
- b. 4%
- c. 6%
- d. 17%

96. The Disaster Management Act was made in?

- a. 2006
- b. 2003
- c. 2005
- d. 2009

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97. Indian National Tsunami Warning System became operational in?

- a. 2003
- b. 2007**
- c. 2009
- d. 2012

98. Asian Disaster Preparedness Centre is at?

- a. Bangkok**
- b. Kerala
- c. Surat
- d. None

99. How much percentage of Indian land is prone to earthquakes?

- a. 52%
- b. 54%
- c. 59%**
- d. 60%

100. How much of India's coastline is vulnerable to disasters?

- a. ~5340km
- b. ~5400km
- c. ~6200km
- d. ~5700km**

101. When was the National Fire Service College established?

- a. 1967
- b. 1976
- c. 1956**
- d. 1942

102. The cyclone 'SIDR' hit Bangladesh in?

- a. 2009
- b. 2007**
- c. 2008
- d. 2006

103. Disasters can be categorized into various types on the basis of?

- a. Its speed
- b. Its previous history
- c. Loss of property they result
- d. Loss of human life they result**

104. Disaster Management covers?

- a. Maintaining control over disasters
- b. Reducing the effects of disasters

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- c. Briefing the top official of govt. on the effect of disasters
- d. All the above**

105. Which of the following is a disaster mitigation strategy?

- a. Constructing cyclone shelters**
- b. Giving loans from banks
- c. Providing cheap electricity
- d. Providing school uniforms to children

106. The term Tsunami is coined from?

- a. Chinese term
- b. Indian term
- c. German term
- d. Japanese term**

107. Amateur Radio is also known as?

- a. Ham radio**
- b. Home radio
- c. Pocket radio
- d. Silent radio

108. A series of earthquakes shook the Central American Nation Of Nicaragua and killed many people in the year?

- a. 1974
- b. 1972**
- c. 1973
- d. 1975

109. In which year a cyclone struck the Coastal Andhra in Krishna Godavari delta and caused havoc?

- a. 1976
- b. 1979
- c. 1978
- d. 1977**

110. The National Civil Defence College was founded in 1957 at?

- a. Bombay
- b. Nagpur**
- c. Cochin
- d. Hyderabad

111. Which of

the following activities is covered by Disaster Management before, during or after a disaster?

- a. Reconstruction and Rehabilitation
- b. Mitigation
- c. Emergency response

d. Alltheabove

112. The

phrase **WEAPONS OF MASS DESTRUCTION** entered widespread usage in? a. 2003

b. 2001

c. 2002

d. 2004

113. Landslides occur because of?

a. Intensity of rainfall

b. Steep slopes

c. Deforestation leading to soil erosion

d. Alltheabove

114. On November 19, 1977, a cyclone, which had been operated to hit Tamil Nadu, instead struck the Central Coast and diverted several villages?

a. Kerala

b. Andhra Pradesh

c. Orissa

d. Karnataka

115. For coordinating disaster management activities for all natural hazards, the Nodal Agency at the Central Govt is the?

a. Ministry of Home Affairs

b. Ministry of Rural Development

c. Ministry of Communication

d. Ministry of Urban Ministry

116. U.N. Disaster

Management Team UNDMT is responsible for solving problems resulting from disasters in?

a. India

b. Iran

c. Bangladesh

d. All countries the world

117. National Disaster Management Division of the Govt. of India wherever necessary, sends to disaster affected areas?

a. Coordination of satellite phones

b. Medicines for affected people

c. Provides relief measures

d. Alltheabove

118. When a powerful earthquake struck South Eastern Iran and caused enormous loss of life and property killing 30,000 people?

a. 26.12.2003

b. 26.11.2003

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- c. 26.10.2003
- d. 26.10.2002

119. Of the following, which is a natural hazard?

- a. Earthquake
- b. Cyclone
- c. Landslide

120. The ground movements caused by earthquakes can have a damaging effect such as?

- a. Ground shaking
- b. Landslides
- c. Surface ruptures
- d. All the above

121. International Tsunami Information Centre is in?

- a. Honolulu
- b. Goa
- c. Jakarta
- d. Pondicherry

122. The main objectives of First Aid?

- a. To preserve life
- b. To prevent the victim's condition from worsening
- c. To promote recovery
- d. All the above

123. First Aid should contain?

- a. Cotton Wool, Crepe bandage
- b. Sterile dressing, pain reliever
- c. Scissors, Gloves, Antacids
- d. All the above

124. Report on Training on Search and Rescue for the members of the village Disaster Management Team is prepared by?

- a. Govt. of Manipur
- b. Govt. of Indonesia
- c. Govt. of Uttaranchal

125. Tsunamis are waves generated by?

- a. Earthquakes
- b. Volcanic eruptions
- c. Underwater landslides
- d. All the above

126. In which year the violent explosion of the famous Volcano, Krakatoa in Indonesia, produced Tsunami measuring 40 feet?

- a. 1883
- b. 1881
- c. 1882
- d. 1884

127. According to World Disasters Report of 2010, during 2000-09, 85% of affected people belonged to the?

- a. Asia Pacific Region
- b. African region
- c. Japan region
- d. Australian region

128. Area of Indian coastline which is vulnerable to storm surges, cyclones and tsunamis is?

- a. 5700 Km
- b. 3700 km
- c. 2700 km
- d. 4700 km

129. The date when the super cyclone hit the Orissa coast which killed nearly 10,000 people and affected over 15 million people across 12 districts of Orissa is?

- a. 29.08.1999
- b. 29.08.1997
- c. 29.08.1998
- d. 29.08.1996

130. According to the World Bank, during the period 1996 to 2000, the approximate percentage loss of gross domestic product due to disasters was?

- a. 2.85%
- b. 2.25%
- c. 2.50%
- d. 1.95%

131. The National Policy on Disaster Management was approved by the Union Cabinet in?

- a. 2008
- b. 2009
- c. 2007
- d. 2010

132. The Chairman of the National Disaster Management Authority is?

- a. Home Minister
- b. Vice President
- c. Minister, Human Resource Development

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d. Prime Minister

133. National Disaster Reserve Fund is the result of?

- a. 12th Finance Commission
- b. 11th Finance Commission
- c. 13th Finance Commission
- d. None of the above

134. By what measures can we significantly reduce the impact of disasters on our people?

- a. Better planning
- b. Preparedness awareness
- c. Mitigation measures
- d. All the above

135. First Indian Disaster Management Congress was inaugurated on? a. 2

- 9-11-2006
- b. 26-10-2006
- c. 29-8-2006
- d. 29-10-2006

136. National Institute of Disaster Management publishes a biannual journal titled?

- a. Disaster India
- b. Disaster Mitigation
- c. Disaster & Development
- d. Indian Disaster

137. The term "Cyclone" is derived from?

- a. Greek Word
- b. French Word
- c. Latin Word
- d. Chinese Word

138. What percent of earthquakes and tsunamis account for world disasters?

- a. 8%
- b. 3%
- c. 9%
- d. 7%

139. Mechanisms established under Disaster Management Act, 2005 include?

- a. National Disaster Management Authority
- b. State Disaster Management Authority
- c. District Disaster Management Authority
- d. All the above

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140. According to World Bank Estimate, direct losses from natural disasters are upto percent of GDP?

- a. 4%
- b. 2%**
- c. 1%
- d. 3%

141. SAARCD Disaster Management Centre is at?

- a. Dhaka
- b. Coloumbo
- c. New Delhi**
- d. Khatmandu

142. Tsunamis are waves generated by?

- a. Earthquakes
- b. Volcanic eruptions
- c. Underwater landslides
- d. All of the above**

143. A Certificate course in Disaster Management is offered by?

- a. Indira Gandhi National Open University**
- b. B.R. Ambedkar National Open University
- c. Nalanda Open University
- d. Vardhaman Mahavir Open University

144. Which is the nodal agency at the Indian Union

Government for coordinating disaster management activities for all natural hazards?

- a. Minister of Home Affairs**
- b. Ministry of Social Justice and Empowerment
- c. Ministry of Science and Technology
- d. Ministry of Environment and Forests

145. United Nations Disaster Management Team (UNDMT) is responsible for solving problem resulting from disasters in?

- a. Africa
- b. Asia
- c. Australia
- d. In all continents**

146. On what date a powerful earthquake struck South Eastern Iran and caused heavy loss of life and property?

- a. 26.12.2004
- b. 26.12.2003**
- c. 26.12.2002
- d. 25.11.2003

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147. First Aid Kit should contain?

- a. Cotton Wool, Bandage
- b. Pain Relievers, Medicines
- c. Scissors, Gloves, Antacids
- d. All the above**

148. Andhra Pradesh was severely battered by a cyclonic storm which killed more than 10,000 lives on ?

- a. 15.11.1976
- b. 15.11.1977**
- c. 15.11.1978
- d. 15.11.1975

149. Disaster Management Team should include?

- a. Awareness generation team
- b. First aid team
- c. Search and Rescue team
- d. All of the above**

150. 11-03-2012 marked one year since an earthquake and tsunami killed thousands of people in?

- a. Japan**
- b. South Korea
- c. North Korea
- d. Indonesia

151. Earthquake under the sea is called?

- a. Tsunami**
- b. Hurricane
- c. Cyclone
- d. Thunder

152. In which month in India, floods are likely to occur?

- a. June-December
- b. June-September**
- c. May-October
- d. April-June

153. According to U.N.O. there were about _____ disasters per year between 1992-2000 in the world?

- a. 100
- b. 300
- c. 500**
- d. 800

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154. In which year the violent explosion of the famous Volcano, Krakatoa in Indonesia, produced Tsunami measuring 40 feet?

- a. 1881
- b. 1882
- c. 1883
- d. 1884

155) Which natural hazard has caused the greatest number of deaths in a single event?

- a) Earthquakes
- b) Floods
- c) Volcanic eruptions and related disasters (hurricanes)

156) Earthquake that occur along faults are created when _____

- a) Melted rock is erupted along the fault zone
- b) Stress builds up until rocks break
- c) The earth shifts and moves along fracture
- d) Answers b and c

157) Tsunami is:

- a) Earthquake on land mass
- b) Volcanic eruption
- c) Earthquake in ocean crust
- d) None of these

158) Magnitude of earthquake indicates amount of

- a) Vibrations per second
- b) Vibrations per minute
- c) Oscillations
- d) Energy released

159) From where earth quake waves are generated?

- a) Focus
- b) Epicenter
- c) Solid inner Core
- d) None of these

160) Earthquakes occur most frequently at

- a) Plate surface
- b) Plate boundaries
- c) Plate vacuum
- d) Ocean beds

161) Tremors that have occurred in Earth's crust are known as

- a) Earthquakes
- b) Volcanic eruptions

- c) Ederuptions
- d) Volcano

162) Instrument used to measure earthquake is known as

- a) Quakemeter
- b) Quakegraph
- c) **Seismograph**
- d) Typanicgraph

163) Which of the following activities is covered by Disaster management before, during or after a disaster?

- a) Reconstruction and Rehabilitation
- b) Mitigation
- c) Emergency response
- d) **All the above**

164) International Tsunami Information Centre is in?

- a) **Honolulu**
- b) Goa
- c) Jakarta
- d) Pondicherry

165) When did Tsunami strike the east coast of India in recent times?

- a) **December 26, 2004**
- b) December 26, 2014
- c) December 24, 2004
- d) January 26, 1997

166) What is the cause of tidal waves?

- a) Wind
- b) Gravitational force of the moon on the sea
- c) Gravitational force of the sun on the sea
- d) **Gravitational force of the earth on the sea**

167) As a tsunami approaches shallow water which of the following sets of transformations occur?

- a) Wavelength increases, wave period decreases, and wave height stays the same
- b) Wavelength decreases, wave period decreases, and wave height increases
- c) Wavelength decreases, wave period increases, and wave height increases
- d) **Wavelength decreases, wave period stays the same, and wave height increases**

168) What does the acronym ISDR stand for?

- a) International Significant Disaster Resources
- b) International Sustainable Development Report
- c) **International Strategy for Disaster Reduction**
- d) Intergovernmental Strategy for Developing Recreation

169) Which is the most dangerous location for a tsunami hazard?

- a) A straight stretch of coast directly exposed to the open sea
- b) A rocky point protruding into the ocean in deep water
- c) A bay with a nice sandy beach at its end
- d) A small boat in the deep ocean

170) The nodal department for wind detection IMD refers to

- a) Indian meteorological department
- b) Indian metrological department
- c) Indian metallurgical department
- d) None of these

171) Mapping method used for tracking wind speed and direction is

- a) Hazard mapping
- b) Mind mapping
- c) Speed mapping
- d) None of these

172) Warm air is _____ than cold air

- a) Heavier
- b) Lighter
- c) No difference in weight
- d) Very much lighter

173) The centre of a cyclone is a calm area and is called the _____ of the storm.

- a) Eye
- b) Focus
- c) Centre
- d) Radius

174) A cyclone is called a _____ in the American Continent.

- a) Hurricane
- b) Typhoon
- c) Tornado
- d) Thunderstorm

175) A cyclone is called a _____ in Philippines and Japan.

- a) Hurricane
- b) Typhoon
- c) Tornado
- d) Thunderstorm

176) Dams are redesigned to reduce flooding by _____.

- a) Protecting river banks from erosion
- b) Providing storage for floodwater

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- c) Increasing the downstream velocity of flood water
- d) Trapping sediment behind the dam so it can't be deposited downstream

177) Which one of the following is NOT recommended during Lightning or thunderstorm?

- a) Take Shelter in a bus or car.
- b) In a forest, seek shelter in a low area under a thick growth of small trees.
- c) Take shelter under an isolated tree.
- d) Get away from tractors and other metal farm equipment.

178) Equator is a region of _____ pressure while poles are a region of _____ pressure

- a) High, low
- b) Low, high
- c) Low, low
- d) High, high

179) The eye of a cyclone is

- a) Cloudy and highly stormy.
- b) Full of strong winds.
- c) Calm and cloudless
- d) Site with high atmospheric pressure.

180) A flash flood is a flood that

- a) is caused by heavy rain rather than from the flooding of a river
- b) occurs in urban areas
- c. occur suddenly and unexpectedly and for a short duration
- d. is caused by the blocking of drains.

181) A flood can vary in:

- a) Size
- b) Speed of water flow
- c) Duration
- d) All of the above.

182) The size of a flood is measured by:

- a) The rate of flow of water in a waterway or river
- b) The level of water in a waterway or river
- c) A river gauging station
- d) All of the above.

183) Which of the following potentially affect the size of a flood?

- a) Bridges and other structures in waterways
- b) The size and windiness of a river
- c) Vegetation in and around a river
- d) All of the above

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184) Which of the following is an environmental consequence of floods?

- a) Dispersal of weed species
- b) Erosion of soil
- c) Release of pollutants into waterways
- d) All of the above.

185) Which of the following is true? Flood warnings:

- a) Should not be released until the information is certain
- b) Should indicate what the threat is, what actions should be taken, by whom and when
- c) Are best if they come from a single source
- d) All of the above

186) Which of the following statements is false?

- a) Weather forecasts for a small region are more accurate than those for a large region
- b) Weather forecasts are more accurate in Melbourne than in Darwin
- c) Forecasts of temperature are more accurate than forecasts of rainfall
- d) All of the above

187) Flood risk refers to:

- a) The chance of a flood occurring
- b) The number of people and properties exposed to floodwaters if a flood occurs
- c) The vulnerability of people and properties that are exposed to floodwaters
- d) All of the above.

188) Which of the following can reduce the risk of flooding?

- a) Zoning and building regulations for new developments
- b) Dams, detention basins and levees
- c) Flood awareness and education programs
- d) All of the above.

189) In the future, which of the following is expected to increase the risk of flooding?

- a) Population growth
- b) Urbanisation
- c) Climate change
- d) All of the above.

190) Urbanization usually results in an increase in flood frequency because

- a) Less water is able to runoff in streams
- b) Less water is able to infiltrate into the ground, so instead is discharged rapidly into streams
- c) More water is used by humans and then discharged to streams
- d) Rainfall is greater in urban areas than in rural areas

191) Channelization of streams is designed to reduce flooding by _____.

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- a) Speeding the passage of floodwaters
- b) Reducing bank erosion
- c) Slowing down river velocity so as to reduce damage
- d) Increase the meandering of streams

192) Dams are designed to reduce flooding by _____.

- a) Protecting river banks from erosion
- b) Providing storage for floodwater
- c) Increasing the downstream velocity of floodwater
- d) Trapping sediment behind the dam so it can't be deposited downstream

193) In alpine regions reservoirs are created

- a) To regulate the flow of melting water from ice fields
- b) To give the alpine population enough water
- c) To make larger rivers smaller
- d) To get enough water into the main rivers

194) When forests are cut or burned down

- a) Water can flow away very quickly and cause mudslides
- b) Nutrients are washed deep into the soil
- c) Water stands in fields and cannot flow away
- d) Rainfall can get into the ground more quickly

195) The word Hazard originated from-

- a) Latin word
- b) Greek word
- c) French word.
- d) Indian word

196) In which date tsunami occurred in Indonesia-

- a) 24th April
- b) 26th March
- c) 26th Dec
- d) 27th Dec

197) Etna volcano is relocated in-

- a) Japan
- b) Italy
- c) India
- d) Iran

198) The term Influenza implies-

- a) Flu
- b) Fever
- c) In flu
- d) Typhoid

199) How many types of Hazards are there-

- a) 1
- b) 2
- c) 4
- d) 5

200) 'International Secretariat for Disaster Reduction' stands for-

- a) ISAR
- b) ISER
- c) ISDR
- d) ISFR

201) Full form of PPP-

- a) Public Partner Prize
- b) **Public Private Partnership**
- c) Public Pure Partner
- d) Public Partner Private

202) Full form of EVD-

- a) **Ebola Virus Disease**
- b) Evoc Virus Disease
- c) Evola voc Disease
- d) Evola Vig Disease

203) The term cyclone means-

- a) Coil of tiger
- b) **Coil of snake**
- c) Coil of lion
- d) Coil of pig

204) Full form of NGO-

- a) **Non Government Organization**
- b) Non Govern Organise
- c) Non Govern Organ
- d) Non Govern Orpat

205) The scientific study of earthquake is called-

- a) Seismograph
- b) **Seismology**
- c) Saismology
- d) Seacmology

206) When was the last major earthquake in India-

- a) 27th JAN, 2001
- b) 26th JAN, 2001

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- c) 27th FEB,2002
- d) 28th APRIL,2004

207) TB disease generally affects of-

- a) Kidney
- b) Stomach
- c) **Lungs**
- d) Skin

208) Which virus is responsible for AIDS-

- a) HIC
- b) **HIV**
- c) HIL
- d) HKL

209) "International Decade for Natural Disaster Reduction"-stands for-

- a) IDNER
- b) **IDNAR**
- c) IDAKR
- d) IDFER

210) Which instrument are used for recording the occurrence of the earthquake-

- a) Richterscale
- b) **Seismograph**
- c) Seismometer
- d) Dopplerrader

211) Which instrument are used for intensity of the earthquake-

- a) Richterscale
- b) **Seismometers**
- c) Seismograph
- d) Tiltmeter

212) What types of disaster are most predominant in India-

- a) Draught
- b) **Flood**
- c) Cyclone
- d) EarthQuake

213) The earth crust is made up of huge slabs, which are called-

- a) Crust
- b) **Plates**
- c) Rock
- d) Magma

214) Which instrument is used for measuring the magnitude of an earthquake-

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- a) Tiltmeter
- b) Richterscale**
- c) Seismograph
- d) Seismometer

215) The point within the earth where earthquake generated is called-

- a) Focus of epicenter
- b) Focus of foci
- c) Focus of hypocenter**
- d) None of these

216) Which of the following waves is the slowest-

- a) P waves
- b) S waves
- c) Surface waves
- d) Tsunami**

217) Mention the major type of Tropical cyclone-

- a) Hurricanes
- b) Typhoons
- c) Tornadoes
- d) All of these**

218) Hurricane cyclone are formed in-

- a) U.S.A
- b) British Island
- c) Japan
- d) India**

219) Typhoon cyclone are formed in--

- a) India
- b) China**
- c) Philippines
- d) Japan

220) In India, highest percentage of damages caused by flood hazards--

- a) Uttar Pradesh
- b) Bihar**
- c) West Bengal
- d) Tripura

221) Human induced hazards can be classified into--

- a) 2
- b) 3
- c) 5**
- d) 4

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222) The name of the chemical leakage in Bhopal Gas Tragedy–

- a) Carbon dioxide
- b) Methyl isocyanate**
- c) Hydrogen
- d) Sulphur dioxide

223) When Bhopal Gas Tragedy occurred–

- a) 3rd Dec, 1984**
- b) 5th Dec, 1985
- c) 3rd Nov, 1984
- d) 3rd Dec, 1987

224) Typhoid causing bacteria–

- a) Shigella
- b) Salmonella**
- c) HIV
- d) HCV

225) Full form of DDMA–

- a) District Disaster Management Authority**
- b) District Disease Management Authority
- c) District Dam Management Authority
- d) District Duck Management Authority

226) In which year Tripura Legislative Assembly Election held–

- a) 18th Jan, 2018
- b) 18th Feb, 2018**
- c) 1st Jan, 2018
- d) 14th Feb, 2018

227) How many Districts in Tripura–

- a) 6
- b) 8**
- c) 7
- d) 3

228) How many sub divisions in Tripura–

- a) 25
- b) 23**
- c) 24
- d) 26

229) Name of the first lady Governor of Tripura–

- a) Dr. Kamala Beniwal**
- b) Dr. Kajal Lal

- c) Dr.ParthaDey
- d) Dr.RajuRoy

230) HowmanyBlocksarethereinTripura-

- a) 54
- b) 58
- c) 57
- d) 51

231) Namethe first high schoolinTripura-

- a) BBI
- b) UmakantaAcademy
- c) RKI
- d) DNV

232) Choosethenumberof NationalHighwayinTripura-

- a) 45
- b) 44
- c) 46
- d) 31

233) Whichmetal iscausing forMinamatadisease-

- a) Iron
- b) Mercury
- c) Gold
- d) Silver

234) NameonewildlifesanctuaryinTripura-

- a) Gomati
- b) Sipahijola
- c) Dharmanagar
- d) Agartala

235) InTripura,whichnodalagencyplaycrucialroleinorganisingcommunitycapacitybuildingpogrammesandconductingmockdrillsatState,DistrictandBlocklevels

- (a) NationalDisasterResponseForce
- (b) NationalInformaticsCentre
- (c) DistrictDisasterManagementAuthority
- (d) TripuraDisasterManagementAuthority

236) IndianMeteorologicalDepartmentdeclared“SuperCyclone”

- (a) Whenthewindblowsataspeedofmorethan216kmph
- (b) Whenthewindblowsata speedofmore than220kmph
- (c) Whenthewindblowsataspeedofmorethan194kmph
- (d) Whenthewindblowsataspeedofmorethan172kmph

237) The toxic gas released from Bhopal Gas Tragedy was

- (a) Methylisocyanate
- (b) Potassium isocyanate
- (c) Sodium isocyanate
- (d) Methylisothiocyanate

238) Volcanoes which are recurrently inactive but there is a possibility that it can erupt again in future are called

- (a) Dormant Volcanoes
- (b) Semi-Dormant Volcanoes
- (c) Extinct Volcanoes
- (d) Dead Volcanoes

239) Tsunami in the Indian Ocean occurred in the year

- (a) 2003
- (b) 2004
- (c) 2005
- (d) 2006

240) ITCZ stands for

- (a) Inter Tropical Convergence Zone
- (b) Intra Tropical Convergence Zone
- (c) Inter Tectonic Convergence Zone
- (d) Inter Temperate Convergence Zone

241) Which of the following group of people are more vulnerable in the event of a disaster

- (a) Men, boys, old people
- (b) Men, Women, boys
- (c) Women, children, Old people
- (d) None of these

242) High vulnerability and high hazard area associated with

- (a) Low disaster risk
- (b) Medium disaster risk
- (c) High disaster risk
- (d) None of these

243) The place of origin of an earthquake is called

- (a) Focus
- (b) Epicentre
- (c) Centre
- (d) Core

244) The instrument which records earthquake wave is called

- (a) Climograph
- (b) Seismograph**
- (c) Hythergraph
- (d) None of the above

245) The word disaster owes its origin from

- (a) Greek word
- (b) Latin word
- (c) French word
- (d) German word**

246) When magma reaches the surface of the earth, it is called

- (a) Lava**
- (b) Crater
- (c) Fissure
- (d) Clay

247) A disease is called pandemic when it is

- (a) Within a region
- (b) Within a country
- (c) Within a continent**
- (d) None of these

248) The flood caused in Uttarakhand due to

- (a) Cloudburst**
- (b) Landslide
- (c) Earthquake
- (d) None of these

249) Which of the following is not an epidemic

- (a) Cholera
- (b) Smallpox
- (c) Plague
- (d) HIV-AIDS**

250) The terrorist attack known as 9/11 took place in

- (a) India
- (b) USA**
- (c) UK
- (d) None of the above.

251) An important water contaminant is:

- (a) Heavy metals**

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- (b) Nitrogenoxides
- (c) Carbonmonoxide
- (d) NO₂ and SO₂

252) Anextremenaturalphenomenoncapableofcausingdisasterleadingtolossoflivesordamagetopropertyisknownas-

- (a) Naturalhazard
- (b) Hazardcalculation
- (c) Desertification
- (d) Noneoftheabove

253) The process of identifying the probability of occurrence of a natural hazard of a givenintensityataspecificlocationbasedonananalysisofnaturalprocessesandsiteconditionsistermedas-

- (a) Disastercalculation
- (b) HazardAssessment
- (c) Hazardcalculation
- (d) Noneoftheabove

254) The typeanddegreeoffloodingis influencedbymanyfactors,suchas

- (a) Climatological
- (b) Hydrologicaland environmentalconditions
- (c) Localgeomorphologyofthefloodplain
- (d) Alloftheabove

255) TheNationalfloodCommissioninIndiawassetupin

- (a)1980
- (b) 1985
- (c)1995
- (d) 1980

256) Earthquakeis-

- (a) Asuddenshakingorvibrationofground
- (b) Disturbancesinthe earth'scrust
- (c) Both(a)&(b)
- (d) Noneoftheabove

257) Anenormousamountofenergyisreleasedduringanearthquakeasseismicwaveswhichareof

- (a) Primaryorpressurewaves(P-waves)
- (b) Secondaryortransversewaves(S-waves)
- (c) Long wavesorsurfacewaves(L-waves)
- (d) Alloftheabove

258) What is the point or place that is the first to record these seismic waves?

- (a) Seismic point
- (b) Epicenter**
- (c) Focal point
- (d) Epipoint

259) Seismic waves during earthquake are recorded and studied with the help of an instrument called as

- (a) Richter scale
- (b) Seismograph**
- (c) Lithograph
- (d) Cardiograph

260) The magnitude of energy released by an earthquake is usually measured on Richter scale which ranges between

- (a) 0 to 7
- (b) 0 to 8
- (c) 0 to 9**
- (d) 0 to 12

261) Sometimes there are some indications that would indicate that perhaps an earthquake would occur. Such indications are called

- (a) Indicators
- (b) Precursors**
- (c) Signal
- (d) Anticipations

262) Special consideration in order to mitigate earthquake like disasters is given as to protect

- (a) Heritage buildings
- (b) Buildings of cultural and historical importance
- (c) Scientific and Technological laboratories
- (d) All of the above**

263) Special consideration in order to mitigate earthquake like disasters is given as to protect

- (a) Heritage buildings
- (b) Buildings of cultural and historical importance
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- (d) All of the above**

264) Which one is a major environmental safety hazard for the people in hilly areas in Tripura which can be considered as "cancer of hillslopes"?

- a) Flood

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- (b) Landslide
- (c) Earthquake
- (d) Desertification

265) Which zone is considered the highest vulnerability zone of these seismic zonation map of India ?

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

266) Tsunami is a

- (a) Japanese origin word
- (b) Latin origin word
- (c) Greek origin word
- (d) Portuguese origin word

267) In which earthquake, the stones on the roads of Shillong are said to have "vibrated like peason adrum"?

- (a) Cachar Earthquake
- (b) Latur Earthquake
- (c) Great Earthquake of Assam
- (d) Bhuj Earthquake

268) The sudden release of hot materials (lava, ash, gas etc.) from volcano is called

- (a) Volcanic eruption
- (b) Ash showers
- (c) Pyroclastic flows
- (d) Hot mudflows

269) Which volcanic belt is commonly called "Ring of Fire"?

- (a) The Mid-Continental Belt
- (b) The Circum-Pacific Belt
- (c) The Mid-Atlantic Belt
- (d) The Circum-Continental Belt

270) Latur earthquake occurred in

- (a) 30 September, 1993
- (b) 30 November, 1993
- (c) 21 April, 1993
- (d) 15 April, 1993

271) Bhuj earthquake occurred in

- (a) 23 January, 2001

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- (b) 26 January, 2001
- (c) 31 January, 2001
- (d) 29 January, 2001

272) Tsunami is also known as

- (a) Tectonic Seawaves
- (b) Seismic Seawaves
- (c) Plactonic Seawaves
- (d) Systonic Seawaves

273) A flash flood is a flood that:

- (a) is caused by heavy rain rather than from the flooding of a river
- (b) occurs in urban areas
- (c) occurs suddenly and unexpectedly and for a short duration
- (d) is caused by the blocking of drains.

274) A flood can vary in:

- (a) size
- (b) speed of water flow
- (c) duration
- (d) all of the above.

275) When a river's water level reaches 10 metres, this means that:

- (a) the water level is 10 metres above an arbitrary 'zero' level
- (b) the water level is 10 metres above mean sea level
- (c) the water level is 10 metres above mean sea level or an arbitrary 'zero' level
- (d) it will flood.

276) The size of a flood is measured by:

- (a) the rate of flow of water in a waterway or river
- (b) the level of water in a waterway or river
- (c) a river gauging station
- (d) all of the above.

277) Which of the following is associated with a La Niña event?

- (a) The Southern Oscillation Index (SOI) is strongly negative.
- (b) The ocean surface off the coast of South America is warmer than usual.
- (c) There is an increased chance of above average rainfall in eastern Australia.
- (d) All of the above.

278) Which of the following potentially affects the size of a flood?

- (a) bridges and other structures in waterways
- (b) the size and windiness of a river
- (c) vegetation in and around a river

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(d) all of the above.

279) In Australia, the average annual cost of floods is around:

- (a) \$3.8 million
- (b) \$38 million
- (c) \$380 million**
- (d) \$3.8 billion.

280) In Australia, the most expensive natural disaster is:

- (a) drought
- (b) floods**
- (c) bushfires
- (d) cyclones.

281) Which of the following is an environmental consequence of floods?

- (a) dispersal of weed species
- (b) erosion of soil
- (c) release of pollutants into waterways
- (d) all of the above.**

282) Which of the following is used to estimate which areas will be inundated during a flood, based on river height information?

- (a) satellite and radar images
- (b) flood maps/flood plain hydraulic models**
- (c) river gauging stations
- (d) all of the above.

283) The Disaster Management Act was made in

- (a) 2006
- (b) 2003
- (c) 2005**
- (d) 2009

284) The Indian Tsunami Early Warning Centre (ITEWC) established at Indian National Centre for Ocean Information Sciences is located in

- (a) Chennai
- (b) Goa**
- (c) Kochi
- (d) Hyderabad

285) Latur Earthquake occurred in

- (a) 1991
- (b) 1992
- (c) 1993**

(d) 1994

286) The name of the largest active volcano is

- (a) Mauna Loa in Hawaii
- (b) Mount Washington in USA
- (c) Mount Fuji in Japan
- (d) Barren Island in India

287) What are the three phases of disaster management planning?

- (a) Evacuating, Rebuilding and Re-branding
- (b) Preparation, Planning and Perception
- (c) Planning, Evacuating and Recovery
- (d) Preparation, Response and Recovery

288) IPCC means

- (a) Intergovernmental Panel on Climate Change
- (b) Intergovernmental Panel on Climatic Condition
- (c) Intergovernmental Programme on Climate Change
- (d) International Panel on Climate Change

289) Which of the following emits dangerous radioactive wastes forcing the government to limit its use?

- (a) Nuclear energy
- (b) Water energy
- (c) Geothermal energy
- (d) Solar energy

290) Which of the following is related to acid rain?

- (a) Carbon-dioxide
- (b) Nitrogen
- (c) Sulphur dioxide
- (d) Carbon Monoxide

291) The Richter Scale is used for measuring of-

- A) Density of liquids
- B) Speed of Aeroplane
- C) Intensity of earthquakes
- D) Depth of mines.

292) Landslides occur because of-

- A) Rainfall
- B) Steep slope
- C) Deforestation
- D) All of the above.

293) Passageway which joins vent to crater of volcano is known as

- a) Vent
- b) Cone
- c) Pipe
- d) Crater

294) What is cyclone-?

- (a) A low pressure system with clockwise winds in the northern hemisphere.
- (b) A high pressure system with anticlockwise winds in the northern hemisphere.
- (c) A low pressure system with anticlockwise winds in the northern hemisphere.
- (d) A high pressure system with clockwise winds in the northern hemisphere.

295) The term "Disaster" is derived from which of the language

- (a) French
- (b) Arabic
- (c) Latin
- (d) Greek

296) From the following, which one is the natural hazard?

- A) Earthquake
- B) Cyclone
- C) Landslide
- D) All the above

297) A hazard:

- A) is a potentially damaging physical event, phenomenon, or human activity
- B) may cause the loss of life or injury, property damage,
- C) may generate social and economic disruption or environmental degradation.
- D) all of the above

298) Earthquake is a:

- a) Geophysical disaster
- b) Hydrological disaster
- c) Meteorological disaster
- d) Compound disaster

299) Mt. Etna is a:

- a) Extinct volcano
- b) Dormant volcano
- c) Active volcano
- d) None of these

300) Which gas caused Bhopal Gas Tragedy?

- (a) Methyl Isocyanate
- (b) Carbon dioxide

- (c) Oxygen
- (d) Methane

7E1714	Roll No.	Total No of Pages: 2
7E1714		
B. Tech. VII - Sem. (Main) Exam., Feb.- March - 2021		
OE - I Open Elective-I Civil Engineering		
7CE6 – 60.2 Disaster Management		

Time: 2 Hours

[To be converted as per scheme]

Max. Marks: 82

Min. Marks: 29

Instructions to Candidates:

Attempt all ten questions from Part A, four questions out of seven questions from Part B and two questions out of five from Part C.

Schematic diagrams must be shown wherever necessary. Any data you feel missing may suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL

2. NIL

PART – A

(Answer should be given up to 25 words only)

[10×2=20]

All questions are compulsory

- Q1 What are the consequences of disaster on a society?
- Q2 What are the major man-made causes of floods?
- Q3 Who are the National Disaster Risk Reduction Stakeholders?
- Q4 Is there a national disaster management policy, act or related legislation?
- Q5 What is response time?
- Q6 What is radiological and nuclear disaster?

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- Q.7 Describe cyclones.
Q.8 What is industrial disaster?
Q.9 What are natural hazards?
Q.10 What is disaster management cycle?

PART - B

(Analytical/Problem solving questions)

[4×8=32]

Attempt any four questions

- Q.1 What are coping strategies with disaster?
Q.2 Explain dimensions of vulnerability factors for earthquake hazards.
Q.3 Explain disaster management cycle.
Q.4 What are industrial safety plans, safety norms and survival kits?
Q.5 Write about legislative support at the state and national level for disaster management.
Q.6 Explain disaster phenomena.
Q.7 Write about disaster resources and their utility in disaster management.

PART - C

(Descriptive/Analytical/Problem Solving/Design Questions)

[2×15=30]

Attempt any two questions

- Q.1 Explain Disaster Management Act and Policy in India.
Q.2 What are the different types of disaster management?
Q.3 What are the objectives of disaster management?
Q.4 Explain steps for formulating a disaster risk reduction plan.
Q.5 What are vulnerabilities to flood and earthquake hazards?



TECHNO INDIA NJR INSTITUTE OF TECHNOLOGY UDAIPUR

Mechanical Engineering Department

B. TECH IV- YEAR (VIII Sem.)

II MID-TERM (2020-2021)

SUBJECT – Disaster Management (8TT6-60.2)

Time: 1Hr 30 minutes + 15 Minutes for Submission

Attempt any five questions.

Max. Marks: 40

[5 * 8 =40]

1. A) Differentiate between Landslides and Avalanches (CO2)
B) Differentiate between natural and man-made hazards. (CO3)
2. What are the various causes of floods? What are the flood management policies enacted in India from time to time? (CO2)
3. Discuss various types of natural disasters in India and highlight their effects. (CO3)
4. What kind of Emergency medical and essential public health services can be suggested for an Earthquake affected area? (CO1)
5. What is meant by Disaster management? Explain the process of disaster management. (CO1)
6. A) What are the points to be considered before, during and after natural disaster? (CO2)
B) Write short notes on vulnerability and risk. (CO1)
7. What are hazards? Why is the study about hazards important for Indian subcontinent? Explain (CO1)

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(Sample Paper)

- Q.1 (a) Define- Disaster and Hazard.
(b) Discuss how a manager can analyze the events.
(c) Write in detail types of events.

- Q.2 (a) Write a note on Checklists
(b) Disaster Risk Management in India, Act & Policy
(c) Explain Disaster cycle-its analysis.

OR

- (c) What is the role of Technology in event management?
Q.3 (a) Write a note on mitigation and preparedness.
(b) Developing record keeping systems in event management.
(c) Explain the roles & responsibilities of event manager.

OR

- Q.3 (a) Define: Resilience and Risk.
(b) Role of decision makers in event management.
(c) Explain step by step procedure to be followed when conducting an event.

- Q.4 (a) What is the meaning of Expense Reimbursement?
(b) What are causes & effects of natural disaster?
(c) Role of Panchayat raj institution (PRIs) in disaster management?

OR

- Q.4 (a) Short note on Fees & Honorariums.
(b) Structural-nonstructural measures used for DRR.
(c) Write in detail about Climate Change Adaptation.

- Q.5 (a) Roles and responsibilities of community in disaster management.
(b) Preparing a Planning Schedule and its importance in an event.
(c) What are Mice? Explain each component in detail.

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(Sample Paper)

- Q.1 (a) Write a note on various community based disaster management.
(b) Explain the terms disaster and hazard.
(c) Define the terms: Disaster, Hazard, Vulnerability, Risk and Capacity
- Q.2 (a) Enumerate the technological disaster and explain any one.
(b) Explain geological disaster with suitable example.
(c) Write difference between man-made disaster and biological disaster.
- Q.3 (a) Enumerate the hydro meteorological disaster and explain any one.
(b) What are the preventive measures for man-made disasters?
(c) Write a note on urban disaster.
- Q.4 (a) Focus on pre-disaster & post-disaster management.
(b) Discuss disaster management cycle
(c) Describe awareness during disaster.
- Q.5 (a) Explain relief and rehabilitation in disaster management
(b) Explain early warning system in case of flood.
(c) What is paradigm shift in disaster management?
- Q.6 (a) Describe national policy on disaster management.
(b) Give the role of government in disaster.
(c) Discuss about disaster profile of India.