

SOFT SKILL COURSE: DISASTER MANAGEMENT

1. Which of the following is not part of geological disaster?

- A. Volcanoes
- B. Earthquakes
- C. Tsunami
- D. Sea Surge**

2. What is the rank of India in the world for natural disasters after China as per UNISDR?

- A. Third
- B. Second**
- C. Seventh
- D. Eighth

3. What is the reason for volcanic eruption?

- A. Movement and splitting of the major and minor plates of the Earth
- B. Origin of magma because of lowering of melting point inside the Earth caused by reduction in the pressure due to the splitting of plates and their movements in opposite directions.
- C. Only A
- D. Both A & B**

4. Which of the following types of volcanic eruptions associated with Lacroix?

- A. Hawaii Eruption
- B. Strombolian Eruption
- C. Vulcanian
- D. All of the above**

5. The volcanic eruption in Iceland falls under which volcanic belt in the World?

- A. Belts of Convergent boundaries
- B. Divergent Plate Boundaries**
- C. Hot Spots
- D. None of the above

6. A geophysicist who studies earthquakes and the mechanical characteristics of the Earth is called _____.

- A. Seismologist**
- B. Geologist
- C. Geographer
- D. Archaeologist

7. Consider the following statement (s) is/are related to the strategy to combat earthquake disasters.

- I. Establishing earthquake monitoring centres for regular monitoring and fast dissemination of information among the people in the vulnerable areas.
- II. Modifying the house types and building designs in the vulnerable areas and discouraging contribution of high rise buildings, large industrial establishments and big urban centres in such areas.

Code:

- A. Only I
- B. Only II
- C. Both I & II**
- D. Neither I nor II

8. What causes Tsunami?

- A. Sudden vertical movement of the Earth

- B. Convergence of destructive plates in the ocean floor
- C. Explosive volcanic eruptions in the seas/oceans.

D. All of the above

9. Consider the following statement (s) is/are related to the characteristics of tsunami waves.

- I. Tsunamis are high energy sea waves caused mainly by the deep focus earthquakes of high magnitude.
- II. Preparing a vulnerability map of the country and dissemination of vulnerability risk information among the people.

Code:

- A. Only I
- B. Only II

C. Both I & II

D. Neither I nor II

10. Consider the following statement (s) is/are related to the remedial steps to reduce the risk of life and properties by landslides.

I. Mapping of landslide prone areas a7 construction of houses, felling of trees and grazing in landslide prone areas should be prohibited or restricted.

II. Afforestation in the vulnerable areas is an effective way of durable landslides control.

Code:

- A. Only I
- B. Only II

C. Both I & II

D. Neither I nor II

11. Consider the following pairs:

- 1. EarthSummit, 1993 Rio-de-Janeiro
- 2. World Conference on Disaster Management, 1994: Yokohama
- 3. National Institute of Disaster Management, 1995: Hyderabad

Which of the above pairs are correctly matched?

(a) 1 only

(b) 1 and 2 only

(c) 3 only

(d) 1,2 and 3

12. Consider the following statements:

1. Natural Hazards are elements of circumstances in the Natural environment that have the potential to cause harm to people or property or both.

2. Natural disasters are relatively sudden and cause large scale, widespread death, loss of property and disturbance to social systems and life over which people have a little or no control.

Which of the statements given above is/are correct?

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) None of these

13. Choose the false statement among the following statements:

(a) World Conference on Disaster Management in May 1994 was subsequently called the Yokohama Strategy and Plan of Action for a Safer World.

(b) The issue of Natural Disaster was raised at the U.N. General Assembly in 1992 and was finally formalised at the world conference on Disaster management in 1994.

(c) The Tropical cyclone of 1971 in India is the deadliest one till date.

(d) Unscientific land use and construction activities in fragile areas are some of the disasters that are the results of indirect human actions.

14. With reference to the Classification of Natural Disasters, Consider the following statements:

1. Broadly, natural disasters can be classified under four categories: Atmospheric, Terrestrial, Aquatic and Biological.
2. Bird flu, dengue are example of Aquatic Disaster. 3. India has experienced all the four kind of natural disaster.
Select the correct answer using the code given below

(a) 1 only

(b) 1 and 2 only

(c) 1, 2 and 3

(d) 1 and 3 only

15. Tropical Cyclones are intense low pressure areas confined to the area lying between (a) 30 degree north and 30 degree south

(b) 50 degree north and 50 degree south.

(c) 50 degree north and 30 degree south.

(d) 5 degree north and 5 degree south.

16. Which one among these is not an essential condition for emergence of Tropical Cyclone?

(a) Peninsular landmass

(b) Strong Coriolis force that can prevent filling of low pressure at the centre.

(c) Large and continuous supply of warm and moist air that can release enormous latent heat.

(d) Absence of strong vertical wind wedge, which disturbs the vertical transport of latent heat.

17. 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

18. With reference to flood consider the following statements:

1. National Programme of Flood Management was launched in 1954.

2. Disturbances along the natural drainage channels and colonisation of flood-plains and river-beds are some of the human activities that play an important role in increasing the intensity, magnitude and gravity of floods.

Which of the statements given above is/are correct?

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

19. Rashtriya Barh Ayog (National Flood Commission) identified ____ million hectares of land as flood-prone in India.

(a) 40

(b) 80

(c) 100

(d) 120

20. Which of these is/are flood prevention and mitigation strategy?

1. Construction of flood protection embankments
 2. Depopulating the flood plains
 3. Afforestation
 4. Decongesting river channels
- Select the correct option using the codes given below

- (a) 1 and 2 only
(b) 1, 2 and 3 only
(c) 2, 3 and 4 only
(d) 1, 2, 3 and 4

21. People live in dangerous areas for what reasons?

- a. for the views
- b. because of cheap land
- c. because the land is fertile
- d. for proximity to recreational opportunities
- e. for all of these reasons**

22. Catastrophic natural disaster losses in developed countries involve which of the following?

- a. large numbers of deaths
- b. large financial costs to individuals and companies**
- c. primarily losses borne by insurance companies
- d. large numbers of deaths and large financial costs
- e. primarily losses borne by state governments

23. Areas of cities that are subjected to significant natural hazards should be used for which of the following?

- a. office buildings because they can withstand the effects of the hazard
- b. inexpensive single-family houses
- c. parks and golf courses**
- d. shopping malls
- e. factories and industrial complexes

24. When people or government agencies try to control the activities of natural events, the common result is which of the following?

- a. The effect is the opposite of that intended.
- b. The effort is wasted because it is impossible to do.
- c. We have become quite effective at such control.
- d. This doesn't happen since the federal government doesn't permit tampering with nature.
- e. Our problem with nature is transferred elsewhere, to someone else, or postponed.**

25. Natural disasters generally involve which of the following?

- a. events with a single clear-cut cause
- b. events that involve overlapping natural causes**
- c. events wholly caused by the activities of man
- d. events that are unaffected by the activities of man
- e. events that always involve interaction between closely related processes

26. Most natural disasters are which of the following?

- a. cyclic, in that they occur at predictable intervals
- b. rarely if ever cyclic because there are too many overlapping effects**
- c. completely random in that they involve processes that we cannot hope to understand
- d. interactions between two closely related events
- e. processes that start small and build toward a climax at a more-or-less constant rate

27. A fractal system is one that involves which of the following?

- a. numerous intersecting fractures
- b. similarity in form at a wide range of scales**
- c. completely unrelated processes that interact to produce an event
- d. closely related processes that interact to produce a larger event
- e. processes that are unrelated and static

28. An insurance company decides on the cost of a policy for a natural hazard by _____.

- a. adding up the total cost of the most recent disaster of the type
- b. multiplying the probability of the loss by the number of policies sold
- c. averaging their probable dollar loss for all disasters that they insure
- d. calculating the cost of the probable loss times the probability of that event**
- e. multiplying the cost of the largest loss of that type times the number of times that loss has occurred

29. The costs of catastrophic events continue to increase primarily because _____.

- a. more people are moving into more hazardous areas**
- b. not enough people pay for insurance in hazardous areas to even out the costs
- c. insurance companies are not making enough profit to satisfy their shareholders
- d. insurance companies are refusing to insure most natural hazard losses
- e. natural hazards are becoming more difficult to understand

30. Why are most people who live on southeast-coast beaches unconcerned about hazards?

- a. There are few significant hazards in those areas.
- b. Disasters in those areas come along only about every one hundred years.
- c. They have never experienced a significant disaster.**
- d. They are well insured for the types of hazards that affect those areas.
- e. They have built strong shoreline defences against hazards that might affect them.

31. What kind of natural hazards are not normally insurable?

- a. earthquakes
- b. volcanoes
- c. landslides**

- d. floods
- e. windstorms

32. Why don't many coastal communities try to educate visitors and new residents about natural hazards in their areas? They view such information as _____.

a. bad for business

- b. too difficult for most people to understand
- c. a national security issue
- d. information an insurance company might use to their advantage
- e. classified information to be used only by the Federal Emergency Management Agency

33. What is the normal relationship between the number of a particular type of event and the size of such events?

- a. There is an equal number of small, medium, and large events of any given type.
- b. There are few small events, a moderate number of larger events, and many giant events of any given type.
- c. There are many small events, many medium-size events, but for most hazards no giant events.
- d. There are many small events, a moderate number of larger events, and few giant events of any given type.**
- e. For most types of natural hazards, there are medium and large events but no small events of equivalent type.

34. When is a large event such as a major earthquake not a disaster?

- a. when it happens in a far away country that we do not care about
- b. when it happens to less than 10,000 people
- c. when it happens to less than 1,000 people
- d. when it happens in an area without any people**
- e. when it happens in a third-world country in which more than 20 percent of the population subsists on less than \$2 per day

35. Who is most commonly to blame when people incur a significant loss from a natural disaster?

- a. the U.S. Army Corps of Engineers for not building protective structures
- b. the federal government for not doing something about it
- c. the people themselves for choosing to live there**
- d. the local county for permitting them to build there
- e. the realtor for selling them the property

36. What can happen to make a moderate-size event into a large natural disaster?

- a. cyclic events that tend to get stronger with time
- b. overlapping events that amplify the effect**
- c. cyclic events that get progressively bigger as each one adds to the next in the series
- d. the multiplying effect of events of a given type in the same area
- e. overlapping events that interfere with one another

37. If you erect a barrier for protection against some natural event, what detrimental effect can follow?

- a. You shouldn't try to do so because such barriers typically cost more than the structures they are designed to protect.
- b. National laws require that anything that interfaces with natural processes be done by federal agencies.
- c. Similar projects by others
- d. Nature is strong enough to immediately overwhelm your efforts, which are then wasted.

e. It can have detrimental effects on others nearby.

38. Which of the following is an example of the domino effect?

- a. a landslide caused by a sudden precipitation event
- b. an increase in the cost of gasoline that causes people to drive less
- c. global warming that causes more rapid melting of Arctic sea ice that results in further sea ice melting**
- d. when a feature looks the same across a wide range of scales
- e. an earthquake that occurs in a developing nation that causes health, social, and economic problems

39. Which of these natural hazards causes the LEAST amount of fatalities in the United States annually?

- a. volcanoes**
- b. heat and drought
- c. lightning
- d. winter weather
- e. tornadoes

40. Which is NOT a way that government policy mitigates natural hazards?

- a. using research and studies to predict storms and floods
- b. congress funding expensive Army Corps of Engineers projects to build levees along rivers**
- c. relocating natural disaster victims to more stable areas
- d. utilizing computer systems to determine risk levels
- e. organizing central emergency management agencies to bring order to chaotic relief efforts

41. Which is not a natural disaster

- a. Earthquake
- b. Hurricane
- c. Tsunami
- d. Terrorism**

42. Which of the following destinations has experienced a major tourism crisis?

- a. Bali**
- b. Belgium
- c. Belize
- d. Bulgaria

43. What was the date of the Madrid train bombings?

- a. 2001
- b. 2004**
- c. 2005
- d. 2006

44. The event of 9/11 changed the way in which we travel by

- a. **Changing the security systems at airports**
- b. Changing the security systems in flight
- c. Changing hotel booking systems
- d. None of these

45. What are the three phases of disaster management planning?

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

46. Which of the following regions is perceived as a high-risk destination?

- a. Europe
- b. The Americas
- c. **The Middle East**
- d. The South Pacific

47. Dark tourism relates to which of the following?

- a. **Thano tourism**
- b. Tourism in high-risk areas
- c. Visits to areas where people suffered or died
- d. Visits to the North Pole during the winter

48. The Arab Spring refers to:

- a. flooding
- b. the recent growth in Middle East tourism
- c. **political uprising, demonstrations and wars in the Middle East**
- d. an oasis

49. What makes tourism different from the purchase of other goods and services?

- a. It is hedonic
- b. It is labour intensive
- c. **It is a purchase made in good faith**
- d. Simultaneity of production and consumption

50. What does the acronym ISDR stand for?

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

51. Disasters can be broadly termed as _____ types.

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

Explanation: Disasters can be accidental or intentional. Accidental disasters include natural disasters like tsunamis, hurricanes, floods, etc. Intentional are man-made disasters like, terrorism, bombing, etc.

52. The annual flood peaks in India are recorded in months of:

- a) June, July

- b) July, August
- c) July, September
- d) August, September**

Explanation: Floods can occur during any part of the monsoon season. But, typically during months of August and September, flood peaks are recorded. On large rivers, it ranges between 60,000 and 80,000 m³/s.

53. Uttarakhand lies in zone _____ of Earthquake prone areas.

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

Explanation: There are five zones of earthquake. Zone 5 covers areas with the highest risk (intensity of MSK 1x or greater). Zone 4 covers areas liable to MSK VIII, Zone 3 to MSK VII, Zone 2 to MSK VI or less. Zone 1 area is not there in India.

54. To measure flood variability, _____ is used widely.

- a) FFMI**
- b) FI
- c) FMI
- d) FFI

Answer: a

Explanation: FFMI stands for Flash Flood Magnitude Index. It is the standard deviation of logarithms to the base of 10 of annual maximum series.

55. Disaster management deals with situation that occurs after the disaster.

- a) True
- b) False

Explanation: Disaster management is a broad term and it deals with a situation prior to, during and after the occurrence of a disaster.

56. How many elements of disaster management are there?

- a) 8
- b) 7
- c) 4
- d) 6**

Explanation: There are six distinct sets of activities. These include risk management, loss management, control of events, equity of assistance, resource management and impact reduction.

57. Which of the below is an example of slow-onset disaster?

- a) Earthquake
- b) Tsunami
- c) Cyclone
- d) Draught**

Explanation: Disasters can also be classified as rapid-onset and slow-onset. It is based on how long they last. Rapid-onset disasters are Earthquake, Tsunami and Cyclone.

58. How many phases of disaster response are there?

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

Explanation: These are the preparatory phase, warning phase, emergency phase, rehabilitation phase and reconstruction phase.

59. The first step in preparedness planning is:

- a) Analysis of data collected
- b) Determination of objectives**
- c) Development of implementing device
- d) Determination of strategy

Explanation: There are six steps in preparedness planning for emergency response. The first step is to determine the objectives to be met within each affected sector.

60. Tsunami detectors are placed in sea at _____ kms from shore.

- a) 25
- b) 100
- c) 50**
- d) 85

Explanation: Coastal tidal gauges can detect tsunami closer to shore. It is placed at 50kms in the sea from shore. They are linked to land by submarine cables and give warning in time.

61. A place where an earthquake originates is called

- a. Epicenter
- b. Focus**
- c. Fault line
- d. Crust

62. National Institute of Disaster Management is at

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

63. The term disaster is derived from which of the following language

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

64. As the magnitude of natural disaster increases there frequency of occurrence

- a. Increases
- b. Decreases**
- c. Remain same
- d. none

65. The Disaster Management Act was made in

- a. 2004
- b. 2005**
- c. 2007
- d. 2008

66. Tsunamis are waves generated by

- a. Underwater landslide
- b. Earthquakes**

- c. Volcanic eruptions
- d. All the above**

67. Which of the following are natural deserters

- a. Earthquakes
- b. Cyclone
- c. Landslide
- d. All of the above**

68. How much percentage of Indian land is prone to Earthquakes

- a. 52%
- b. 59%**
- c. 60%
- d. 62%

69. Powerful tsunami are produced by

- a. Volcanic eruptions
- b. Cyclone
- c. Tornados
- d. Earthquake**

70. Landslide occurs due to

- a. Intensity of rainfall
- b. Steep slopes
- c. Deforestation leading it soil erosion
- d. All the above**

71. International Tsunami Information Centre is in

- a. Honolulu**
- b. Haryana
- c. Jakarta
- d. Goa

72. Area of Indian Coastline which is vulnerable to storm surges, cyclones and tsunamis

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

73. The chairman of the National Deserter Management Authority is

- a. Human Resource Development
- b. Prime Minister**
- c. Home Minister
- d. Vice President

74. The term "cyclone" is derived from

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

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

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

76. Pedology is the study of

- a. Climate
- b. Rocks
- c. Earthquakes
- d. Soil**

77. Which of the following regions in India is more prone to earthquakes

- a. Aravalli range
- b. Deccan plateau
- c. Himalayan range**
- d. Malwa plateau

78. Volcanic eruption do not occur in the

- a. Baltic sea**
- b. Black sea
- c. Caribbean sea
- d. Caspian sea

79. What is EL Nino?

- a. It is disease caused by viruses
- b. It makes more rains
- c. It is the warming of oceans and atmosphere**
- d. It is western musical dance

80. Now a days the climatic accidents are attributed to

- a. EL Nino**
- b. Monsoon
- c. Nasco plant movement
- d. Forest fire

81. Seismograph is an instrument used for

- a. Measuring rainfall
- b. Measuring temperature
- c. Recording the earthquake shocks**
- d. Measuring pressure

82. The recent Garhwal region earthquake was due to the

- a. Himalayan fold mountains
- b. Clash of Indian plate and Chinese plate**
- c. Landline and heavy rain
- d. Glacier Movement

83. Indonesia forest fire in 1997 is caused by

- a. Green house effect

- b. Depletion of Ozone layer
- c. EL Nino effect**
- d. None

84. Which of the following influences soil erosion in India

- a. Slope of land
- b. Terracing
- c. Deforestation**
- d. Irrigation

85. Windows may rattle and people may feel tremor at scale of

- A. 3
- B. 4**
- C. 5
- D. 2

86. Vibrations radiate from focus in all direction as

- A. Longitudinal waves
- B. Transverse waves
- C. Seismic waves**
- D. Typanic waves

87. Approximate range of earthquakes that occur each year is

- A. hundreds
- B. thousands**
- C. millions
- D. billions

88. Poorly built buildings may collapse at a scale of

- A. 5
- B. 6**
- C. 7
- D. 8-10

89. Richter scale is a

- A. logarithmic scale**
- B. calculus scale
- C. volumetric scale
- D. area to vibration ratio scale

90. Earthquakes occur most frequently at

- A. plate surface
- B. plate boundaries**
- C. plate vacuum
- D. ocean beds

91. Point at which earthquake takes place is known as

- A. origin
- B. epicenter
- C. principal
- D. focus**

92. Magnitude of earthquake indicates amount of

- A. vibrations per second

- B. vibrations per minute
- C. oscillations
- D. energy released**

93. Earthquakes occur when there is a sudden release of stored up energy in Earth's

- A. inner core
- B. outer core
- C. upper mantle**
- D. lower crust

94. Tremors that have occurred in Earth's crust are known as

- A. Earthquakes**
- B. Volcanic eruptions
- C. Bed eruptions
- D. Volcano-Earth Quake

95. Instrument used to measure earthquake is known as

- A. quake meter
- B. quake graph
- C. seismograph**
- D. typanicgraph

96. What is a tsunami?

- a) a type of fish
- b) a series of huge waves**
- c) a kind of volcano
- d) Earthquake

97. The term Tsunami is coined from?

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

98. Tsunamis are waves generated by ?

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

99. Amateur Radio is also known as?

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

100. Tsunami can occur only during?

- a) Morning
- b) Noon
- c) Evening
- d) Any time of day or nights**

101. National Institute of Disaster management is located at?

- a) Pune
- b) Midnapur**

- c) New Delhi
- d) Calcutta

102. 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**

103. International Tsunami Information Centre is in?

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

104. What is the speed of tsunami waves?

- a) 40 meters/hour
- b) 100 kms/hour
- c) 9000 km/hour
- d) 800 km/hour**

105. If you were at the beach, how would you know there may be a tsunami?

- a) There may be a warning
- b) An alert comes over the radio
- c) There is a drop in the level of the ocean
- d) all of the above**

106. What would you do if you heard a warning?

- a) Surf on the big waves
- b) Get out of the water quickly and move to higher ground**
- c) Wait until you have finished your swim
- d) phone your friend

107. When did Tsunami struck the east coast of India in recent times?

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

108) Tsunamis are most commonly found in which ocean?

- a) Pacific Ocean**
- b) Atlantic Ocean
- c) Arctic Ocean
- d) Indian Ocean

109) 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

110) Tsunami is classified as

- a) Water Hazard
- b) Environmental hazard**

- c) Biological hazard
- d) **Geological hazard**

115. Just prior to a tsunami coming ashore, sea level appears to fall quickly. This phenomenon is called

- a) Sea level drop
- b) Draw fall
- c) **Drawdown**
- d) Dip in sea level

116. Most major tsunamis are produced by earthquakes with magnitudes greater than

- a) 6
- b) **7**
- c) 8
- d) 9

117. 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**

118. Major tsunamis are produced by earthquakes with hypocenters less than

- a. 5 km
- b. 10 km
- c. 20 km
- d. **30 km**

119. Major tsunamis are generated by earthquakes along

- a. Divergent margins
- b. **Convergent margins**
- c. Transform margin
- d. None of the above

120. During a tsunami a series of waves radiating out ward from a central disturbance of the sea floor is called a

- a. Ocean storm
- b. Wind-generated disturbance
- c. **Wave train**
- d. Wavelets

121. When the stress exceeds the resistance to shearing along the locked interface between two converging plates, what will happen?

- a. The seafloor will suddenly subside
- b. **The seafloor will suddenly be driven upward**
- c. The seafloor will slide passively in a lateral direction parallel to the strike of the interface
- d. Nothing will happen

122. If the seafloor is suddenly displaced upward, then what happens to the sea surface?

- a. It will subside
- b. It will remain unchanged
- c. **It will momentarily rise**
- d. Nothing will happen

123. Just prior to a tsunami coming ashore, sea level appears to fall quickly. This phenomenon is

called

- a. Sea level drop
- b. Draw fall
- c. **Drawdown**
- d. Dip in sea level

124. As a tsunami approaches shallow water which of the following set 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, waver period stays the same, and wave height increases**

125. The wave height of a tsunami is typically less than

- a. 0.1 m
- b. 0.2 m
- c. **1 m**
- d. 0.5 m

126. What does "tsunami" mean in Japanese?

- a. severe earthquake
- b. Huge wind
- c. **Harbour wave**
- d. Terrible storm

127. What are the three phases of disaster management planning?

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

128. 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

129. A clear concise document which outlines preventive and preparatory measures n the event of a disaster to minimize its effect is

- a. **Disaster plan**
- b. Disaster manual
- c. Disaster guide
- d. Disaster record

130. What are the technologies involved in the detection of Tsunami?

- a. Satellites to provide warning of tsuna-migenic earthquakes
- b. Coastal tidal gauges
- c. Tsunami detectors linked to land by submarine cables
- d. **All of the above**

131. The number of tsunami waves generated by one earthquake is generally:

- a. one
- b. **10 or 12**
- c. about 50
- d. about 100-120

132. 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

133. A flash flood is a flood that Flood

- 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.

134. A flood can vary in:

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

135. 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.

136. 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.**

137. 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.

138. 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
- d. all of the above**

139. 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.**

140. 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 / floodplain hydraulic models**
- c. river gauging stations

d. all of the above.

141. 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

142. 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 action should be taken, by whom and when**
- c. are best if they come from a single source
- d. all of the above.

143. 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.**

144. Which of the following can reduce the risk of flooding?

- a. zonings and building regulations for new developments
- b. dams, detention basins and levees
- c. flood awareness and education programs
- d. all of the above.**

145. The Probable Maximum Flood is:

- a. an estimation of the largest possible flood that could occur at a particular location**
- b. the maximum flood experienced in the last 100 years
- c. the maximum flood experienced in the last 200 years
- d. the maximum flood experienced since flood records have existed.

146. For good land use planning, buildings should be built:

- a. above the 1 in 100 year flood level
- b. above the level of the Probable Maximum Flood
- c. based on the chance and consequences of a flood for that particular building**
- d. above the level of the largest historical flood.

147. 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.**

148. In the future, which of the following is unlikely?

- a. there will be an increased chance of flash flooding and coastal inundation
- b. flood risk will increase due to population growth and urbanisation
- c. improvements in flood forecasting and warning technologies will reduce the impacts of floods
- d. we will be able to eliminate the risk of flooding.**

149. The change in elevation of a stream per unit length is called .

- a. base level
- b. gradient**
- c. velocity
- d. discharge

150. The lowest level to which a stream may erode is called .

- a. base level**
- b. gradient
- c. velocity
- d. discharge

151. As the discharge in a stream increases, load usually .

- a. increases**
- b. decreases
- c. stays the same
- d. none of the above

152. A stream with too much bed load will usually have what type of channel pattern?

- a. straight
- b. meandering
- c. braided**
- d. dendritic

153. Which of the following is not a characteristic of a braided stream?

- a. branching channels
- b. high gradient
- c. abundant bed load
- d. constant discharge**

154. Usually the largest floods in a stream occur _ .

- a. very frequently, several times in one year
- b. frequently, every few years
- c. rarely, about every ten years
- d. rarely, or once every few 100 years**

155. If a dam is removed, then upstream from the former dam the river responds by

- a. downcutting (lowering its bed)**
- b. raising its bed
- c. avulsion
- d. becoming a braided stream
- e. decreasing its discharge
- f. making no change

156. Which of the following measurements is not needed to estimate stream discharge?

- a. stream velocity
- b. width of stream
- c. bed load of stream**
- d. depth of stream

157. Which is not a characteristic of a regional flood?

- a. An extended rise of river elevation for weeks to months.
- b. Large storm systems or an extended period of rainfall.
- c. A small drainage basin.**
- d. Floodplains covered with floodwaters.

158. Most of the damage done by floods in the U.S. occurs .

- a. on floodplains**
- b. in small tributaries
- c. in delta regions

d. on uplands along major rivers in deserts

157. The process of avulsion causes .

- a. downcutting of the riverbed
- b. wider floodplains for the river
- c. slow shifting of the river's channel
- d. formation of a new course for the river channel**

159. The process of avulsion is caused by .

- a. erosion of the river channel
- b. buildup of sediment in the river channel**
- c. widening of the channel
- d. destruction of natural levees

160. 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

161. Channelization of streams is designed to reduce flooding by .

- 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

162. Dams are designed to reduce flooding by .

- a. protecting river banks from erosion
- b. providing storage for flood water**
- c. increasing the downstream velocity of flood water
- d. trapping sediment behind the dam so it can't be deposited downstream

163. Flood can not occur due to

- a. Cyclone
- b. Tsunami
- c. Heavy rain
- d. Biological disaster**

164. The largest floods in prehistoric times were probably the result of .

- a. very heavy rainfall
- b. hurricanes
- c. ice dam failures**
- d. meteorite impacts

165. In ancient Egypt the Nile River

- a. destroyed large areas of farming land every year
- b. had to be regulated because it carried too much water
- c. brought nutrients that made the fields fertile**
- d. changed its course almost every year

166. The flooding of New Orleans in 2004 was caused by

- a. an earthquake
- b. a tsunami
- c. a hurricane**

d. a tornado

167. In alpine regions reservoirs are created

- a. to regulate the flow of melting water from icefields
- b. to give the alpine populations enough water
- c. to make larger rivers smaller
- d. to get enough water into the main rivers

168. Dikes and dams are lined up along the coast of the Netherlands

- a. to generate electricity for its population
- b. to change the course of rivers that flow into the North Sea
- c. to keep storms away from the country
- d. to keep ocean water out of the lower lying land**

169. Flash floods are often caused

- a. by thunderstorms**
- b. dikes and dams that are too high
- c. by rainfall over many days
- d. by river beds that are too high

170. Flooding in London is prevented by

- a. a barrier that is raised and lowered**
- b. gates in the western part of the city
- c. westerly winds
- d. high dams along the Thames

171. 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

172. The tsunami that killed over 250,000 people in south and southeast Asia in 2004 was caused by

- a. a volcanic explosion
- b. an earthquake**
- c. a hurricane
- d. a tropical storm

173. A flood can be caused by:

- a. Rising rivers
- b. High tides
- c. Heavy rain in a small area
- d. All of the above**

174. Which of the following should you do in a flood?

- a. Go sight-seeing
- b. Drink the water
- c. Put valuables high up**
- d. Water the garden

175. What is a flash flood?

- a. A sophisticated flood
- b. Power lines fallen in flood waters
- c. A deep flood**

d. A flood that happens fast with little warning

176. Which is the most common type of disaster in New Zealand?

- a. **Floods**
- b. Earthquakes
- c. Tsunami
- d. Volcanoes

177. Which of these problems can be caused by floods?

- a. Landslips
- b. Sewage contamination
- c. Destroyed crops
- d. All of the above**

178. How many inches of fast-moving flood water can knock you off your feet?

- a. 6 inches**
- b. 8 inches
- c. 10 inches

179. What factors contribute to flooding?

- a. Rainfall intensity.
- b. Rainfall duration.
- c. BOTH of the above; rainfall intensity and rainfall duration.**

180. What causes most flash flooding?

- a. Tornadoes.
- b. Slow-moving thunderstorms, thunderstorms repeatedly moving over the same area, or heavy rains from hurricanes and tropical storms.**
- c. Hailstorms.

181. How many feet of fast-moving flood water can sweep a vehicle away?

- a. 3 feet
- b. 2 feet**
- c. 4 feet