

MCQs of Flood Hydrology:

1. **Which of the following is the primary defining characteristic of a flood?**
 - a) A large volume of water
 - b) Overflow of water onto normally dry land
 - c) Rapidly moving water
 - d) Heavy rainfall
2. **A swamp overflowing its usual boundaries would be considered a flood.**
 - a) True
 - b) False
3. **Which of these is NOT a key element in the definition of a flood?**
 - a) Overflow
 - b) Submergence
 - c) Usually dry land
 - d) High wind speed
4. **High-intensity rainfall is most closely associated with which type of flood?**
 - a) Riverine floods
 - b) Flash floods
 - c) Coastal floods
 - d) Groundwater floods
5. **Prolonged rainfall, even at low intensities, is most likely to cause which type of flood?**
 - a) Flash floods
 - b) Riverine floods
 - c) Pluvial floods
 - d) Ice jam floods
6. **Which factor is related to climate patterns and influences flood frequency?**
 - a) Soil type
 - b) Channel slope
 - c) Monsoons and hurricane seasons
 - d) Land use
7. **Rainfall concentrated in a river's catchment area is ____ likely to cause flooding than rain spread out over a wider region.**
 - a) More
 - b) Less
 - c) Equally
 - d) Not
8. **Which catchment characteristic contributes to *faster* runoff and a higher risk of flash floods?**
 - a) Gentle slope
 - b) Steep slope
 - c) Large catchment size
 - d) Permeable soil
9. **Which soil type promotes *more* surface runoff?**
 - a) Sandy soil

- b) Clay soil
 - c) Loamy soil
 - d) Gravelly soil
10. **Which of these REDUCES flood risk?**
- a) Deforestation
 - b) Urbanization
 - c) Forest cover
 - d) Impervious surfaces
11. **Urbanization typically _____ flood potential.**
- a) Decreases
 - b) Increases
 - c) Has no effect on
 - d) Stabilizes
12. **The size and shape of a river channel determine its _____.**
- a) Channel slope
 - b) Channel capacity
 - c) Vegetation cover
 - d) Soil type
13. **Steeper river channels tend to have _____.**
- a) Slower flow and reduced flood risk
 - b) Faster flow and increased flood risk
 - c) No impact on flow or flood risk
 - d) More consistent water levels
14. **Which of the following can exacerbate flooding by impeding water flow?**
- a) Wide, unobstructed channels
 - b) Bridges and dams
 - c) Gentle channel slopes
 - d) Permeable soils
15. **High tides combined with storm surges are most likely to cause which type of flood?**
- a) Riverine floods
 - b) Flash floods
 - c) Coastal floods
 - d) Groundwater floods
16. **Strong winds pushing water towards the coast are associated with _____.**
- a) High tides
 - b) Storm surges
 - c) Riverine flooding
 - d) Snowmelt
17. **Climate change is contributing to _____.**
- a) Less intense rainfall events
 - b) Lower sea levels
 - c) More intense rainfall events
 - d) Slower snowmelt

18. **Rising sea levels increase the risk of _____.**
- a) Riverine floods only
 - b) Coastal floods and more dangerous storm surges
 - c) Groundwater floods only
 - d) Flash floods only
19. **A catastrophic dam failure would most likely cause which type of flood?**
- a) Groundwater flood
 - b) Pluvial flood
 - c) Dam-break flood
 - d) Ice jam flood
20. **Even carefully planned releases from dams cannot contribute to flooding.**
- a) True
 - b) False
21. **Riverine floods are typically characterized by _____.**
- a) Very rapid onset
 - b) Relatively slow onset
 - c) Occurrence only in mountainous areas
 - d) Small affected areas
22. **Overbank flooding is a subtype of which flood type?**
- a) Coastal floods
 - b) Flash floods
 - c) Riverine floods
 - d) Pluvial floods
23. **Which type of flood is characterized by very rapid onset, high velocity, and destructive power?**
- a) Riverine floods
 - b) Flash floods
 - c) Groundwater floods
 - d) Pluvial floods
24. **Flash floods often occur in areas with _____.**
- a) Flat terrain and good drainage
 - b) Steep terrain or urban areas with poor drainage
 - c) Dense forest cover
 - d) Sandy soil
25. **Saltwater intrusion is a characteristic of which flood type?**
- a) Riverine floods
 - b) Coastal floods
 - c) Pluvial floods
 - d) Groundwater floods
26. **Urban floods are often exacerbated by _____.**
- a) Adequate infrastructure
 - b) Inadequate infrastructure
 - c) Permeable surfaces
 - d) Low rainfall intensity

27. **Flooding from rainfall *directly*, not from an overflowing river, is called _____.**
- a) Riverine flooding
 - b) Pluvial flooding
 - c) Coastal flooding
 - d) Flash flooding
28. **Pluvial floods often occur in _____.**
- a) Steep, mountainous areas
 - b) Flat areas, urban or rural
 - c) Coastal areas only
 - d) Areas with dense vegetation
29. **Which type of flood has a slow onset, often over weeks or months?**
- a) Flash floods
 - b) Groundwater floods
 - c) Dam-break floods
 - d) Ice jam floods
30. **Basements are particularly vulnerable to which type of flood?**
- a) Ice jam floods
 - b) Coastal floods
 - c) Groundwater floods
 - d) Flash floods
31. **The accumulation of ice creating a dam in a river is the cause of _____.**
- a) Dam-break floods
 - b) Ice jam floods
 - c) Pluvial floods
 - d) Groundwater floods
32. **Which of the following best describes "systems thinking" in human-ecology?**
- a) Focusing on individual human actions
 - b) Understanding the interconnectedness of human and environmental components
 - c) Ignoring the role of technology
 - d) Studying only biological adaptations
33. **Which of the following is NOT a type of adaptation described in the text?**
- a) Biological
 - b) Geological
 - c) Cultural
 - d) Technological
34. **Deforestation leading to soil erosion, affecting agricultural productivity, is an example of:**
- a) One-way causation
 - b) Reciprocal causation
 - c) Spatial isolation
 - d) Temporal stability
35. **The fact that human-ecological relationships differ between the Arctic and the Sahara is an example of:**
- a) Temporal Variation
 - b) Spatial Variation

- c) Reciprocal Causation
 - d) System Thinking
36. **The study of how different social groups compete for resources in a city aligns with which concept?**
- a) Symbiosis
 - b) Succession
 - c) Competition
 - d) Dominance
37. **Who are credited with first using the term "Human Ecology"?**
- a) Ellen Churchill Semple & Ellsworth Huntington
 - b) Robert E. Park & Ernest Burgess
 - c) Julian Steward
 - d) Harlan H Barrows
38. **Which of these is NOT a key area of study in Human Ecology?**
- a) Resource Management
 - b) Environmental Hazards
 - c) Planetary Formation
 - d) Population and environment
39. **The idea that environment *dictates* human behaviour is known as?**
- a) Human-Ecology
 - b) Environmental Determinism
 - c) Possibilism
 - d) Cultural Ecology
40. **Which of the following investigates how power relations influence human-environment interactions?**
- a) Urban Ecology
 - b) Cultural Ecology
 - c) Political Ecology
 - d) Systems Ecology
41. **Which of these floods can occur in rural area?**
- a) Urban Floods
 - b) Pluvial Floods
 - c) Coastal floods
 - d) Groundwater Floods
42. **Introduction to the Science of Sociology (1921) book establishes Human ecology as:**
- a) Distinct field of Geography
 - b) Distinct subfield of Sociology
 - c) Distinct field of Anthropology
 - d) Distinct field of Biology
43. **Which of the following best describes the term "Reciprocal Causation"**
- a) Environment only shapes the Human Societies
 - b) Human actions only modifies the environment.
 - c) The environment shapes human societies, and human actions, in turn, modify the

environment.

d) None of the above

44. **Which of these is not correctly matched?**

a) Overbank Flooding- Riverine Flood

b) Very Rapid Onset- Flash Flood

c) Salt Water Intrusion- Coastal Flood

d) Slow Onset- Ice Jam Flood

45. **Which of the following is related to the concept of "Succession"?**

a) Symbiosis

b) Gentrification

c) Dominance

d) Competition

46. **Who advocated for geography as the science of human ecology?**

a) Ellen Churchill Semple

b) Robert E. Park

c) Julian Steward

d) Harlan H Barrows

47. **Which of the following is correct about Dam Break Floods?**

a) Slow Onset

b) High Destructive Power

c) Occurs due to heavy rainfall

d) Occurs due to Snowmelt

48. **The capacity of drainage systems are related to which type of Flood?**

a) Riverine Flood

b) Pluvial Flood

c) Coastal Flood

d) Flash Flood

49. **Which of the following flood has relatively slow onset (hours to days)?**

a) Riverine Flood

b) Flash Flood

c) Dam Break Flood

d) Ice Jam Flood

50. **Which of the following is correct about Human Ecology?**

a) It studies only adaptation of Human to Environment

b) It believes environment dictates human behaviour

c) It is an interdisciplinary field of study.

d) It is a branch of Biology

Answer Key

1. **b) Overflow of water onto normally dry land**
2. **b) False**

3. d) High wind speed
4. b) Flash floods
5. b) Riverine floods
6. c) Monsoons and hurricane seasons
7. a) More
8. b) Steep slope
9. b) Clay soil
10. c) Forest cover
11. b) Increases
12. b) Channel capacity
13. b) Faster flow and increased flood risk
14. b) Bridges and dams
15. c) Coastal floods
16. b) Storm surges
17. c) More intense rainfall events
18. b) Coastal floods and more dangerous storm surges
19. c) Dam-break flood
20. b) False
21. b) Relatively slow onset
22. c) Riverine floods
23. b) Flash floods
24. b) Steep terrain or urban areas with poor drainage
25. b) Coastal floods
26. b) Inadequate infrastructure
27. b) Pluvial flooding
28. b) Flat areas, urban or rural
29. b) Groundwater floods
30. c) Groundwater floods
31. b) Ice jam floods
32. b) Understanding the interconnectedness of human and environmental components
33. b) Geological
34. b) Reciprocal causation
35. b) Spatial Variation
36. c) Competition
37. b) Robert E. Park & Ernest Burgess
38. c) Planetary Formation
39. b) Environmental Determinism
40. c) Political Ecology
41. b) Pluvial Floods
42. b) Distinct subfield of Sociology
43. c) The environment shapes human societies, and human actions, in turn, modify the environment.
44. d) Slow Onset- Ice Jam Flood
45. b) Gentrification
46. d) Harlan H Barrows
47. b) High Destructive Power
48. b) Pluvial Flood
49. a) Riverine Flood
50. c) It is an interdisciplinary field of study.

