Week 3 MCQs

1. What is the primary focus of Module 3?

A. Climate change only
B. Impacts of human activities on conservation (Correct)
C. Plastics and their environmental impact
D. Oil spills and mining exclusively

2. Which three impacts are highlighted in Module 3?

A. Climate change, pollution, deforestation
B. Climate change, plastics, oil spills
C. Climate change, plastics, mining (Correct)
D. Plastics, oil spills, deforestation

3. How is climate defined in the text?

A. Daily weather patterns
B. Short-term atmospheric conditions
C. A composite of average regional conditions over 30 years (Correct)
D. The temperature of a specific location

4. What distinguishes climate from weather?

A. Geographic location
B. Temporal scale (Correct)
C. Atmospheric pressure
D. Precipitation levels

5. What is the classical time period for averaging climate data?

A. 10 years
B. 20 years
C. 30 years (Correct)
D. 50 years

6. How many components constitute the climate system?

A. Three
B. Four
C. Five (Correct)
D. Six

7. Name one component of the climate system.

A. Stratosphere
B. Ionosphere
C. Hydrosphere (Correct)
D. Mesosphere

8. What defines climate change according to the text?

A. Short-term temperature fluctuations
B. Seasonal variations in weather
C. Statistically significant variations persisting for decades (Correct)
D. Changes in a single climate variable

9. What are anthropogenic changes?

A. Naturally occurring climate shifts
B. Changes in Earth's orbit
C. Human-induced changes in the atmosphere or land use (Correct)
D. Variations in solar energy output

10. Give an example of a natural internal process affecting climate.

A. Volcanic eruptions
B. Changes in plate tectonics (Correct)
C. Greenhouse gas emissions
D. Deforestation

11. What is an example of an external forcing on the climate system?

A. Ocean currents
B. Changes in Earth's orbit (Correct)
C. Photosynthesis
D. Burning fossil fuels

12. What is anthropogenic forcing?

A. Forces of nature
B. Climate change due to human activities (Correct)
C. Changes in Earth's orbit
D. Solar radiation variations

13. Which gas is mentioned as a significant greenhouse gas?

A. Oxygen
B. Nitrogen
C. Carbon dioxide (Correct)

D. Hydrogen

14. How do humans contribute significantly to carbon dioxide release?

A. Photosynthesis
B. Respiration
C. Burning fossil fuels (Correct)
D. Planting trees

15. What is a consequence of deforestation related to climate change?

A. Increased carbon dioxide absorption
B. Reduced carbon dioxide absorption (Correct)
C. Increased oxygen production
D. No impact on carbon dioxide levels

16. What is a potential response to climate forcing?

A. Increased photosynthesis
B. Changes in ocean currents (Correct)
C. Decreased volcanic activity
D. Reduced greenhouse gas emissions

17. What is one observed biological response to climate change?

A. Decreased mutation rates
B. Increased heterozygosity
C. Changes in species sex ratios (Correct)
D. No change in species distribution

18. What does phenology refer to?

A. Study of ecosystems
B. Timing of biological processes (Correct)
C. Species migration patterns
D. Changes in species distribution

19. What is one consequence of altered phenology?

A. Increased food availability for all species
B. Improved pollination success
C. Food shortages for some species (Correct)
D. No impact on species survival

20. How does climate change affect the sea level?

A. Decreased sea level due to evaporation
B. No impact on sea level
C. Increased sea level due to melting ice and water expansion (Correct)
D. Sea level remains constant

21. What is one method of mitigating climate change?

A. Increasing greenhouse gas emissions
B. Deforestation
C. Reducing greenhouse gas emissions (Correct)
D. Burning fossil fuels

22. What is adaptation in the context of climate change?

A. Reducing greenhouse gas emissions
B. Adjusting to climate change impacts (Correct)
C. Preventing climate change
D. Ignoring climate change effects

23. What is REDD?

A. Increasing emissions from deforestation
B. Reducing emissions from deforestation and forest degradation (Correct)
C. Reforestation efforts
D. No impact on climate change

24. What is one characteristic of plastics?

A. Biodegradable
B. Water-soluble
C. Mouldable when soft (Correct)
D. Naturally occurring

25. What are plastics made from?

A. Inorganic minerals
B. Organic polymers (Correct)
C. Metallic compounds
D. Water and minerals

26. When were the earliest known synthetic plastics made?

A. 19th century
B. 20th century
C. 1600 B.C. (Correct)
D. 1000 A.D.

27. What factor significantly increased plastic production during World War II?

A. Increased availability of petroleum
B. Decreased demand for metal (Correct)
C. Increased demand for metal
D. Decreased availability of petroleum

28. What is the approximate annual increase in plastic production?

A. 1 percent
B. 3 percent
C. 5 percent (Correct)
D. 10 percent

29. What is a major problem with disposing of plastics?

A. They are easily recycled
B. They are biodegradable
C. They are not easily biodegradable (Correct)
D. They are expensive to dispose of

30. What is a harmful byproduct of burning plastics?

A. Water vapor
B. Carbon dioxide
C. Dioxins (Correct)
D. Oxygen

31. What are nurdles?

A. Large plastic fragments
B. Microplastic particles
C. Resin granules used in plastic production (Correct)
D. Recycled plastic pellets

32. What size classifies plastic as macro debris?

A. Less than 5 mm
B. 5-20 mm
C. Greater than 20 mm (Correct)
D. Less than 1 mm

33. What size classifies plastic as meso debris?

A. Less than 5 mm

B. 5-20 mm (Correct)
C. Greater than 20 mm
D. Less than 1 mm

34. What size classifies plastic as micro debris?

A. Less than 5 mm (Correct)
B. 5-20 mm
C. Greater than 20 mm
D. Less than 1 mm

35. What is one way microplastics are formed?

A. Natural processes
B. Photosynthesis
C. Fragmentation of larger plastics (Correct)
D. Volcanic activity

36. What is photolysis?

A. Breakdown due to light (Correct)
B. Production of light
C. Absorption of light
D. Reflection of light

37. How can plastic ingestion affect animals?

A. Improved digestion
B. Increased energy levels
C. Blockage of the alimentary canal (Correct)
D. No negative effects

38. What is entanglement in the context of plastics?

A. Ingestion of plastic
B. Accumulation of toxins
C. Animals trapped in plastic debris (Correct)
D. Habitat alteration

39. What are persistent bioaccumulative toxic substances?

A. Substances that degrade quickly
B. Substances that do not accumulate in organisms
C. Substances that accumulate and persist in organisms (Correct)
D. Harmless chemicals added to plastics

40. Give an example of a persistent bioaccumulative toxic substance.

A. Water
B. Oxygen
C. Bisphenol A (Correct)
D. Carbon dioxide

41. What is one way plastics alter habitats?

A. Increased biodiversity
B. Improved water quality
C. Provision of shelter for some organisms (Correct)
D. No change in habitat

42. How can plastics facilitate the spread of invasive species?

A. Preventing their dispersal
B. Reducing their numbers
C. Acting as rafts for transport (Correct)
D. No impact on invasive species

43. What is one level at which microplastics can have an impact?

A. Ecosystem level
B. Subcellular level
C. Population level
D. All of the above (Correct)

44. What is a key aspect of the 'reduce, reuse, recycle' approach?

A. Increased plastic production
B. Decreased plastic consumption (Correct)
C. Ignoring plastic waste
D. No impact on plastic waste

45. What role do incentives play in addressing plastic waste?

A. No role
B. They discourage responsible behavior
C. They encourage responsible behavior (Correct)
D. They have no impact

46. What are bioplastics?

A. Petroleum-based plastics

B. Plastics made from natural products (Correct)
C. Recycled plastics
D. Non-biodegradable plastics

47. What economic principle is highlighted regarding plastic use and its consequences?

A. Unlimited resources
B. People respond to incentives (Correct)
C. No trade-offs exist
D. Only short-term costs matter

48. What is an externality related to plastic use?

A. Benefits of plastic use
B. Costs of plastic production
C. Costs of plastic waste borne by society (Correct)
D. No external costs

49. How can governments improve market outcomes regarding plastic?

A. Ignoring the issue
B. Promoting only plastic production
C. Internalizing externalities through taxes and subsidies (Correct)
D. Discouraging plastic recycling

50. What is LID in the context of ecosystem disturbances?

A. Large Infrequent Disturbance (Correct)
B. Little Impact Disturbance
C. Localized Impact Disturbance
D. Long-term Impact Disturbance

51. What determines the impact of a disturbance on an ecosystem?

A. Size of disturbance only
B. State of the ecosystem only
C. Frequency of disturbance only
D. All of the above (Correct)

52. What is resilience in an ecosystem?

A. Inability to recover from disturbance
B. Ability to recover from disturbance (Correct)
C. Resistance to any change
D. No impact from disturbances

53. What is the potential outcome of repeated large disturbances?

A. Ecosystem recovery
B. No change in ecosystem
C. Permanent ecosystem alteration (Correct)
D. Increased biodiversity

54. What is a key factor determining the impact of a disturbance on a community?

A. The species composition of the community
B. The size of the disturbance
C. The prior state of the community
D. All of the above (Correct)

55. What is one factor affecting the impact of an ecosystem disturbance?

A. Size of the disturbance
B. Frequency of the disturbance
C. Initial state of the ecosystem
D. All of the above (Correct)

56. In the context of ecosystem disturbances, what does LID stand for?

A. Large, Immediate Disturbance
B. Limited, Infrequent Disturbance
C. Large, Infrequent Disturbance (Correct)
D. Localized, Intense Disturbance

57. What is the likely outcome for a community subjected to multiple large infrequent disturbances?

A. Complete and quick recovery
B. No change to the community
C. A permanent shift to an altered state (Correct)
D. Increased biodiversity

58. What aspect of community dynamics is illustrated by the ups and downs in the graph?

A. Complete destruction
B. Natural variation (Correct)
C. External forcing
D. Human impact

59. In the context of the text, what does the altered state of a community represent?

A. Improved condition

B. Normal condition
C. Condition after a disturbance (Correct)
D. No change in condition

60. What is the recovery period in the graph?

A. Time to return to the initial state (Correct)
B. Time when disturbance occurs
C. Time of complete destruction
D. No change in community condition

61. According to the text, what is one factor influencing the impact of a disturbance on an ecosystem?

A. The species present in the ecosystem
B. The size of the disturbance
C. The frequency of similar disturbances
D. All of the above (Correct)

62. What is the significance of the recovery period after a large infrequent disturbance?

A. It signifies irreversible damage
B. It shows the ecosystem's ability to return to a previous state (Correct)
C. It signifies a continuous state of change
D. It shows the ecosystem is unaffected

63. What is a possible consequence of multiple large infrequent disturbances on an ecosystem?

A. Enhanced resilience
B. Unchanged state
C. No noticeable effect
D. Inability to return to its normal state (Correct)

64. What does the text suggest about the impact of repeated disturbances on an ecosystem's state?

A. They have no lasting effect
B. They lead to improved conditions
C. They can cause a permanent shift to an altered state (Correct)
D. They enhance natural variation

65. What aspect of ecosystem dynamics is highlighted in the text regarding disturbances?

A. Static nature of ecosystems
B. Resistance and resilience of ecosystems (Correct)
C. Irreversible changes only
D. No change in ecosystem

66. What is the main concept illustrated by the graph of community state over time?

A. Linear progression

B. Ecosystem stability

C. Impact of disturbances on ecosystem dynamics (Correct)

D. No impact of disturbances

67. The text emphasizes that ecosystem responses to disturbances depend on what?

A. Only the size of the disturbance

B. The size, frequency and previous state of the ecosystem (Correct)

C. Only the frequency of the disturbance

D. Only the previous state of the ecosystem

68. What is the implication of an ecosystem failing to return to its normal state after a disturbance?

A. It signifies complete ecosystem collapse

B. It indicates temporary change

C. It suggests a permanent alteration of the ecosystem (Correct)

D. It demonstrates ecosystem resilience

69. According to the provided text, what is a factor that influences the impact of a disturbance on an ecosystem?

A. The size of the disturbance

B. The prior condition of the ecosystem

C. The frequency of disturbances

D. All of the above (Correct)

70. Placeholder: Generation failed/incomplete for Week 3 - Q70

A. Failed A (Correct)

B. Failed B

C. Failed C

D. Failed D

71. Placeholder: Generation failed/incomplete for Week 3 - Q71

A. Failed A (Correct)

B. Failed B

C. Failed C

D. Failed D

72. Placeholder: Generation failed/incomplete for Week 3 - Q72

A. Failed A (Correct)

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C. Failed C
D. Failed D

73. Placeholder: Generation failed/incomplete for Week 3 - Q73

A. Failed A (Correct)
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74. Placeholder: Generation failed/incomplete for Week 3 - Q74

A. Failed A (Correct)
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75. Placeholder: Generation failed/incomplete for Week 3 - Q75

A. Failed A (Correct)
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76. Placeholder: Generation failed/incomplete for Week 3 - Q76

A. Failed A (Correct)
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77. Placeholder: Generation failed/incomplete for Week 3 - Q77

A. Failed A (Correct)
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78. Placeholder: Generation failed/incomplete for Week 3 - Q78

A. Failed A (Correct)
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79. Placeholder: Generation failed/incomplete for Week 3 - Q79

A. Failed A (Correct)
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80. Placeholder: Generation failed/incomplete for Week 3 - Q80

A. Failed A (Correct)
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81. Placeholder: Generation failed/incomplete for Week 3 - Q81

A. Failed A (Correct)
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82. Placeholder: Generation failed/incomplete for Week 3 - Q82

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83. Placeholder: Generation failed/incomplete for Week 3 - Q83

A. Failed A (Correct)
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84. Placeholder: Generation failed/incomplete for Week 3 - Q84

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85. Placeholder: Generation failed/incomplete for Week 3 - Q85

A. Failed A (Correct)

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86. Placeholder: Generation failed/incomplete for Week 3 - Q86

A. Failed A (Correct)
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87. Placeholder: Generation failed/incomplete for Week 3 - Q87

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88. Placeholder: Generation failed/incomplete for Week 3 - Q88

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89. Placeholder: Generation failed/incomplete for Week 3 - Q89

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90. Placeholder: Generation failed/incomplete for Week 3 - Q90

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91. Placeholder: Generation failed/incomplete for Week 3 - Q91

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92. Placeholder: Generation failed/incomplete for Week 3 - Q92

A. Failed A (Correct)
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D. Failed D

93. Placeholder: Generation failed/incomplete for Week 3 - Q93

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C. Failed C
D. Failed D

94. Placeholder: Generation failed/incomplete for Week 3 - Q94

A. Failed A (Correct)
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C. Failed C
D. Failed D

95. Placeholder: Generation failed/incomplete for Week 3 - Q95

A. Failed A (Correct)
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C. Failed C
D. Failed D

96. Placeholder: Generation failed/incomplete for Week 3 - Q96

A. Failed A (Correct)
B. Failed B
C. Failed C
D. Failed D

97. Placeholder: Generation failed/incomplete for Week 3 - Q97

A. Failed A (Correct)
B. Failed B
C. Failed C
D. Failed D

98. Placeholder: Generation failed/incomplete for Week 3 - Q98

A. Failed A (Correct)

B. Failed B
C. Failed C
D. Failed D

99. Placeholder: Generation failed/incomplete for Week 3 - Q99

A. Failed A (Correct)
B. Failed B
C. Failed C
D. Failed D

100. Placeholder: Generation failed/incomplete for Week 3 - Q100

A. Failed A (Correct)
B. Failed B
C. Failed C
D. Failed D