

Marine Ecosystem - PBBT105

PART – A

2 marks

UNIT - I

1. Define marine ecosystems.
2. Define ecology.
3. What is biome?
4. What is biosphere?
5. What are the physical features of ecosystems?
6. What are the components of ecosystems?
7. Define habitat.
8. Name the types of ecology?
9. What is food web?
10. Define food chain.
11. What is keystone species?
12. List out some of the marine ecosystem?
13. What is the trophic level of ecosystems?
14. Write the Principle of ecology?
15. Define community ecology?
16. Define ecosystem ecology?
17. Define community ecology?
18. Define population ecology?
19. What is the need of biosphere?
20. Write the effect of population in ecosystems?

UNIT – II

21. Define coastal ecosystem.
22. Write about the principle of coastal ecosystem?
23. What is coast?
24. What is coastal habitat?
25. What is coastal area?
26. Write about the function of coastal ecosystem?
27. Give some examples of coastal marine ecosystem.
28. What is an estuary?
29. What is brackish water?
30. Write about the coral reef?
31. Give some examples of mangrove area.
32. Write the types of shores.

33. Define cliff.
34. Give some of the estuaries present in India.
35. Give some of the mangroves present in India.
36. Define salterns.
37. What are the different types of beaches?
38. What are mangroves?
39. What are barriers?
40. Write about wetland.

UNIT – III

41. What is a pelagic ecosystem?
42. Define epipelagic zone?
43. List the types of pelagic plants.
44. List out the pelagic invertebrates.
45. Define the term of Hadopelagic.
46. Define zooplankton.
47. What are phytoplanktons?
48. Name some of the primary productivity in pelagic ecosystems?
49. Name some of the secondary productivity in pelagic ecosystems?
50. What are the components of ecosystems?
51. What is the role of living component in the ecosystems?
52. Give some the examples of abiotic components?
53. What is the productivity seen in pelagic ecosystem?
54. Differentiate between the biotic and abiotic factors?
55. Give some the examples of biotic components?
56. What is the role of non living component in the ecosystems?
57. What is the roll of zooplankton in food chain?
58. What is the roll of phytoplankton?
59. Differentiate between phytoplankton and zooplankton?
60. Give some examples of zooplanktons?

UNIT – IV

61. Define benthic ecosystems.
62. List out the benthic algae?
63. What are hydrothermal vents?
64. How do hydrothermal vents get their energy?
65. What bacteria live in hydrothermal vents?
66. What is the source of energy in Deep Ocean?

67. What is a hydrothermal vent plume?
68. What is a cold seep?
69. How is the abyssal hill formed?
70. Why are the abyssal plains so flat?
71. What causes seamounts to form?
72. What is a submarine canyon and how is it formed?
73. Where is turbidity currents found?
74. How an ocean trench is formed GCSE?
75. What is a deep sea trench?
76. Why is a seagrass bed important?
77. What type of animals live in kelp forests?
78. Why are kelp forests so important?
79. What is an abiotic ecosystem?
80. What is a biotic ecosystem?

UNIT - V

81. What is marine biodiversity?
82. Define population dynamics.
83. Write the principles of population dynamics?
84. What is dynamics of marine ecosystems?
85. What are unit socks?
86. Define food web.
87. Define food chain
88. What is ecological pyramid?
89. Define energy flow.
90. What is system ecology?
91. What is modeling?
92. What are ecological pyramid?
93. What is the function of ecosystems?
94. Define mortality.
95. Define system ecology.
96. What is modeling?
97. Define energy flow?
98. What is marine biodiversity?
99. What is the advantage of ecology pyramid?
100. What is the disadvantage of ecology pyramid?

PART – B

UNIT – I

1. Write a short note on biome types?
2. Write a short note on the fundamental principles of ecology
3. List out the types of ecology?
4. Discuss about population ecology?
5. What are the factors affecting the habitat and biosphere?
6. How are biome modified for agriculture?
7. Write the ecological niche concept?
8. Discuss the niche and diversity?
9. What are the challenges to classical niche theory?
10. Discuss about marine ecosystem.

UNIT – II

11. Write short note on marine ecosystem?
12. Discuss about the types of shores.
13. Classify the structure and function of marine ecology?
14. What are important factors of barrier?
15. Write short note on following
 - a. Mangroves
 - b. Coral reefs
16. Write short note on estuaries
17. Explain important aspects of brackish water.
18. What are the six classes of the components of the ecosystem?
19. Write a short note on biosphere cycles.
20. Discuss the importance of different coastal ecosystems?

UNIT – III

21. Write an account on pelagic ecosystems?
22. Write about the factors affecting the productivity in pelagic ecosystems?
23. How the biotic factors affecting the productivity of pelagic ecosystems?
24. How the abiotic factors affecting the productivity of pelagic ecosystems?
25. Write short notes on the primary productivity of pelagic ecosystems?
26. Write short notes on the Secondary productivity of pelagic ecosystems?
27. Discuss about the types of pelagic ecosystems?
28. Discuss the difference between the primary productivity and secondary productivity?
29. Explain the importance of primary productivity and secondary productivity.
30. Write a short note on types of pelagic ecosystems?

UNIT – IV

31. Write a short note on importance of benthic ecosystems?
32. Discuss about the types of benthic ecosystems?
33. Describe uses and overuses of land and forest.
34. Write a short note on benthic ecosystem.
35. Write short note on following terms
 - a. Hydrothermal vents
 - b. Submarine canyons
36. Discuss oceanic trenches.
37. Explain about the factors involved in benthic ecosystems?
38. Give short note on productivity of benthic ecosystems?
39. Write difference between biotic and abiotic factors?
40. Discuss the important factors of benthic ecosystems?

UNIT – V

41. Discuss the characteristics of population of dynamics?
42. What is Food web? Discuss the structure and functions of Ecosystem.
43. Write about two general types of reproductive strategies?
44. Write a short note on population growth?
45. Write a short note on food web.
46. Write a short note on food chain.
47. Explain difference between food chain and food web.
48. Discuss the structure and functions of ecosystems?
49. Give a detailed account on marine biodiversity.
50. Discuss about the systems ecology and modeling.

PART – C

UNIT – I

1. What is ecosystem and discuss about its types.
2. Give a detailed account on ecosystem ecology.
3. Explain about the fundamental principles of ecology.
4. Discuss about the different marine ecosystem.
5. Discuss the factors affecting the ecological ecosystem.
6. Discuss about the major types of ecology.
7. Explain about the fundamental principles of ecology. Discuss the factors affecting the ecological ecosystem.
8. Define Ecology. Discuss the factors affecting the ecological ecosystem?
9. What is Biome? Discuss the fundamental principles of Ecology.
10. What is Ecology? Discuss the types of Ecology.

UNIT – II

11. Describe principle, structure, function and importance of shores and beaches.
12. Explain principle, structure, function and importance of coastal wetlands.
13. Describe principle, structure, function and importance of barriers.
14. Explain principle, structure, function and importance of salterns.
15. Describe principle, structure, function and importance of cliffs.
16. Explain principle, structure, function and importance of mangroves.
17. Describe principle, structure, function and importance of estuaries.
18. Explain principle, structure, function and importance of brackish water.
19. Describe principle, structure, function and importance of coastal sand dunes.
20. What are coral reefs? Explain principle, structure, function and importance of coral reefs.

UNIT – III

21. Discuss in brief about pelagic ecosystems and their types?
22. Discuss the various productivity of pelagic ecosystems?
23. What are the factors affecting productivity in pelagic ecosystems?
24. Write about the importance productivity factors in pelagic ecosystems.
25. Write a brief note on zooplanktons and phytoplanktons?
26. Write a brief note on zooplanktons?
27. Discuss the abiotic factors affecting ecosystems?
28. Classify the factors from phytoplankton and zooplankton?
29. Bring out the functional features of an ecosystem.
30. What is Ecological Succession? Mention its types.

UNIT – IV

31. Explain the components of environment and their major interactions.
32. Write a brief note on 'Energy flow in Ecosystem'. State and explain ecological pyramids.
33. What is an ecosystem? Enlist major ecosystems and describe marine ecosystem in detail.
34. What is benthic ecosystems? Explain the components of benthic ecosystems?
35. Explain detail in abyssal hills and plains?
36. Write briefly about submarine canyons?
37. Give account an sea grass bed and kelp forest
38. What are the factors affecting productivity in benthic ecosystems?
39. Define biotic and abiotic factors. Explain the factors affecting benthic ecosystems.
40. Give account on factors affecting in marine ecosystems?

UNIT – V

41. What is food chain? Explain detail characteristics of food chain and ecological pyramid?
42. What is food web? Explain detail in importance fact and their types?
43. Define ecological pyramid. Discuss brief in significance and their types.
44. Define marine biodiversity. Write about the types of marine biodiversity.
45. What are the population dynamics, and explain the principles of population dynamics?
46. Write note on following statements:
 - a. Unit stocks
 - b. Age and size composition of the population
 - c. Density
 - d. Recruitments
 - e. Growth
 - f. Mortality
47. Write detail about the general dynamics of marine ecosystems?
48. Define energy flow. Discuss about briefly about it.
49. Give account on population dynamics and their principles.
50. What is an ecosystem? Give about information about structure and functions.