

D 13364

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Name.....

Reg. No.....

FIFTH SEMESTER B.Voc. PROGRAMME EXAMINATION, NOVEMBER 2021Fish Processing Technology
GEC5ME05—MARINE ECOLOGY

Time : Three Hours

Maximum : 80 Marks

Section A

*Answer all questions.
Each question carries 1 mark.*

1. Intertidal zones are :
 - (a) Zone between highest high tide and lowest high tide.
 - (b) Zone between lowest high tide and highest low tide.
 - (c) Zone between lowest high tide and lowest low tide.
 - (d) Zone between highest high tide and lowest low tide.
2. Spot the INCORRECT match about algal classification :
 - (a) Brown algae — Chondrus.
 - (b) Brown algae — Sargassum.
 - (c) Red algae — Gelidium.
 - (d) Green algae — Spirogyra.
3. One which is a squid species :
 - (a) *Chelydra serpentine*.
 - (b) *Dosidicus gigas*.
 - (c) *Charcharhinus melanopterus*.
 - (d) *Porolithononkodes*.
 - (e) *Tridacnagigas*.
4. All of the following statements about algae are correct except :
 - (a) Examples include Lichens.
 - (b) Contains bili proteins.
 - (c) Have Chlorophyll.
 - (d) Devoid of vascular tissues.
 - (e) Is a source of phycocolloids.
5. Which of the following statements regarding blubber in marine mammals is INCORRECT ?
 - (a) Provide structural support.
 - (b) Most pinniped neonates are born with well developed blubber.
 - (c) Acts as thermal insulator.
 - (d) Most neonates of large baleen whales are born with well developed blubber.
 - (e) Energy storage and energy provider.

Turn over

6. What is a true ecosystem ?
- (a) Primary consumers are least dependent upon producers.
 - (b) Primary consumers out-number producers.
 - (c) Producers are more than primary consumers.
 - (d) Secondary consumers are the largest and most powerful.
7. Which of the following fishes have a skeleton that is entirely made up of cartilage ?
- (a) Puffers.
 - (b) Ray-fins.
 - (c) Sturgeons.
 - (d) Silver Arowana.
8. A group of the individuals of the same species :
- (a) Niche.
 - (b) Population.
 - (c) Community.
 - (d) Habitat.
9. Grey headed flying fox :
- (a) *Pteropsnatalis*.
 - (b) *Pteropuspoliocephalus*.
 - (c) *Chrysoproctus*.
 - (d) *Pardofelisnebulosi*.
10. Black chin tilapia is a key fish species which is mainly found in :
- (a) Zapata swamp.
 - (b) Arafura Swamp.
 - (c) Bolinas lagoon.
 - (d) Muni Lagoon.
 - (e) Lagoa dos Patos.

(10 × 1 = 10 marks)

Section B (Short Answer)

Answer any **eight** questions.
Each question carries 2 marks.

- 11. Define food web.
- 12. Define Keystone species.
- 13. Define genetic diversity.
- 14. Define climate change.
- 15. Define nonrenewable resources.
- 16. What is Wild Life Protection Act ?
- 17. What are the types of coastal habitats ?
- 18. Define marine ecology.
- 19. Define an ecosystem.
- 20. What is an energy pyramid ?

21. What are the examples of abiotic factors ?
22. What are the factors regulate growth in the oceanic microbial food webs ?

(8 × 2 = 16 marks)

Section C (Short Essay)

*Answer any **six** questions.
Each question carries 4 marks.*

23. Explain the biotic levels of organization.
24. Compare brooding Vs. Broadcast spawning.
25. Compare lower vs. Upper slope on a coralreef (biological and physical characteristics).
26. Explain genetic, species and ecosystem diversity.
27. Explain what are the threats to biodiversity.
28. Explain how the physic-chemical environment varies as you move along an estuary from river to sea.
29. Factors influencing phytoplankton productivity.
30. How does the bottom trawling affects the biomass ?
31. Compare Type I vs. Type II error.

(6 × 4 = 24 marks)

Section D (Essay)

*Answer any **two** questions.
Each question carries 15 marks.*

32. Producers, consumers, and decomposers details with examples.
33. What are the ecological factors in marine environment ? Explain.
34. Explain the animal association in marine environment.
35. Explain the terms (a) Pelagic environment ; (b) Demersal environment ; (iii) Intertidal area.

(2 × 15 = 30 marks)