

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**MSc DEGREE EXAMINATION MAY 2022
(First Semester)**

Branch – ZOOLOGY

ENVIRONMENTAL BIOLOGY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

1. Which ecosystem has the highest primary productivity?
(i) Pond ecosystem (ii) Lake ecosystem
(iii) Forest ecosystem (iv) Grassland ecosystem
2. Choose the terminology that refers to the number of deaths due to old age.
(i) Natality (ii) Mortality (iii) Density (iv) Dispersal
3. Identify the following one is a conventional energy resource.
(i) Petroleum (ii) Wood (iii) Cow dung (iv) Hydropower
4. Which type of forest is the most fertile reservoir of wildlife?
(i) Temperate forest (ii) Boreal forest
(iii) Tropical rain forest (iv) All of the above
5. What are bio-monitors?
(i) the animals that can be used to monitor pollutants
(ii) the plants that can be used to monitor pollutants
(iii) the non-living things that can be used to monitor pollutants
(iv) all of the above

SECTION-B (15 Marks)

Answer ALL Questions

ALL Questions carry EQUAL marks (5 X 3=15)

6. a) Explain the types of food webs.
(OR)
b) Justify any three characteristics of a predator.
7. a) Classify the types of growth curves.
(OR)
b) Illustrate the categories of life tables.
8. a) Discuss the adaptations of muddy shore flora and fauna.
(OR)
b) State the advantages of wind energy.
9. a) Analyse the principles of conservation.
(OR)
b) Explain the objectives of biosphere Programme.
10. a) Evaluate the biological effect of air pollution on animals.
(OR)
b) Recommend your suggestions to minimize the water pollution.

SECTION-C (30 Marks)

Answer ALL Questions

ALL Questions carry EQUAL marks (5 X 6 =30)

11. a) Justify the types of Ecological pyramids.
(OR)
b) Interpret the influence of competition.

12. a) Differentiate between Natality and Mortality.

(OR)

b) Assess the basic steps in phosphorus cycle.

13. a) Enumerate the chemical characteristics of marine environment.

(OR)

b) Analyse the types of non-conventional sources of energy.

14. a) Elucidate the ecological basis of wild life conservation and management.

(OR)

b) Compare the Germplasm conservation with cryopreservation.

15. a) Interpret the biological effect of noise pollution in human body.

(OR)

b) Evaluate the role of bio-indicators in environmental monitoring.

Z-Z-Z END