P - III (1+1+1) H / 20 (N)

2020

ZOOLOGY (Honours)

Paper Code : XI - A & B

[New Syllabus]

Full Marks : 50 Time : Two Hours

Important Instructions for Multiple Choice Question (MCQ)

- Write Subject Name and Code, Registration number, Session and Roll number in the space provided on the Answer Script.

  Example : Such as for Paper III-A (MCQ) and III-B (Descriptive).

  Subject Code : | III | A | & | B |

  Subject Name : | |

- Candidates are required to attempt all questions (MCQ). Below each question, four alternatives are given [i.e. (A), (B), (C), (D)]. Only one of these alternatives is 'CORRECT' answer. The candidate has to write the Correct Alternative [i.e. (A)/(B)/(C)/(D)] against each Question No. in the Answer Script.

  Example — If alternative A of 1 is correct, then write :
  1. — A

- There is no negative marking for wrong answer.

মাল্টিপল চয়েস প্রশ্নের (MCQ) জন্য জরুরী নির্দেশাবলী

- উত্তরপত্রে নির্দেশিত স্থানে বিষয়ের (Subject) নাম এবং কোড, রেজিস্ট্রেশন নম্বর, সেশন এবং রোল নম্বর লিখতে হবে।

  উদাহরণ — যেমন Paper III-A (MCQ) এবং III-B (Descriptive)।

  Subject Code : | III | A | & | B |

  Subject Name : [ ]

- পরীক্ষার্থীদের সবগুলি প্রশ্নের (MCQ) উত্তর দিতে হবে। প্রতিটি প্রশ্নে চারটি করে সম্ভাব্য উত্তর, যথাক্রমে (A), (B), (C) এবং (D) করে দেওয়া আছে। পরীক্ষার্থীকে তার উত্তরের স্বপক্ষে (A) / (B) / (C) / (D) সঠিক বিকল্পটিকে প্রশ্ন নম্বর উল্লেখসহ উত্তরপত্রে লিখতে হবে।

  উদাহরণ — যদি **1** নম্বর প্রশ্নের সঠিক উত্তর **A** হয় তবে লিখতে হবে :

  1. — A

- ভুল উত্তরের জন্য কোন নেগেটিভ মার্কিং নেই।

Turn Over

Paper Code : XI-A

Full Marks : 10 Time : Thirty Minutes

Choose the correct answer.

Each question carries 1 mark.

1. Population density is affected by
   (A) Natality
   (B) Mortality
   (C) Immigration and emigration
   (D) All of the above

2. The carrying capacity of a population is determined by its
   (A) Population Growth Rate
   (B) Natality
   (C) Mortality
   (D) Limiting Resources

3. Organisms with very high intrinsic growth rates have
   (A) Long generation times
   (B) Short generation times
   (C) No courtship behaviours
   (D) No carrying capacities

Turn Over

4. The geographic limits within which a population exists is its-

(A) Niche

(B) Habitat

(C) Range

(D) Territory

5. Which one of the following is the correct sequence of the process of succession ?

(A) Migration-Nudation-Competition-Reaction-Stabilization

(B) Nudation-Migration-Ecesis-Competition-Reaction-Stabilization

(C) Ecesis-Migration-Competition-Stabilization-Reaction

(D) Nudation-Ecesis-Migration-Competition-Reaction-Stabilization

6. A group of individuals of the same age within a population is called —

(A) Clone

(B) Cline

(C) Cohort

(D) Community

7. Each successive trophic level has

(A) Less total energy

(B) More total energy

(C) Increased total energy

(D) Non-estimated energy contents

8. Itai-Itai disease is caused by

(A) Cd

(B) Hg

(C) Pb

(D) As

9. Botulism is caused by-

(A) Bacteria

(B) Virus

(C) Protozoa

(D) Helminth

10. Which of the following is a secondary pollutant?

(A) CO_2

(B) SO_2

(C) PAN

(D) None of the above

2020

ZOOLOGY (Honours)

Paper Code : XI-B

[New Syllabus]

Full Marks : 40 Time : One Hour Thirty Minutes

The figures in the margin indicate full marks.
Write your answer maximum within one page for the questions carrying 4 *marks each and maximum within three pages for the questions carrying* 12 *marks each.*

Unit - 1

(Ecology)

1. Answer any ***two*** questions: 4x2 = 8

   (a) Explain commensalism and mutualism with examples.

   (b) Comment on J-shaped and S-shaped growth curves.

   (c) Write a short note on "Biotic Potential".

   (d) Briefly describe the components of 'Universal model' of energy flow.

2. Answer any ***one*** question: 12x1=12

   (a) What do you mean by Grazing and Detritus Food chains? Explain Y-shaped energy flow model with its components and significance.Differentiate r-selected and k-selected species. (2+6+4=12)

Turn Over

(b) Define indicator species. Describe survivorship curves based on survivors and age with examples.Briefly explain the carbon cycle. (1+6+5=12)

(c) What do you mean by fundamental and realized niche? Define "Resource Partitioning". Write in detail about different types of population interactions. 2+2+8=12

Unit-2

(Environmental Biology and Toxicology)

3. Answer any ***two*** questions: 4x2 = 8

(a) ExplainBio-magnification and its effects.

(b) Comment on acute and chronic toxicity

(c) Why BOD and COD are important for aquatic environment?

(d) Write a short note on "Automobile emission as health hazard".

4. Answer any ***one*** question: 12x1=12

(a) Define water pollution. What are the sources and effects of water pollution? Add a note on photochemical smog. (2+6+4=12)

(b) Define Habitat. Explain the nature of destruction of wetlands in our country along with its consequences. Comment on ecological impacts of tourism. 2+6+4=12

(d) Define Heavy Metals. Explain in detail the adverse effects of Lead and Cadmium poisoning in the ecosystem. What is the mechanism of arsenic toxicity in humans? 2+6+4=12
