

2021

ZOOLOGY (Honours)

Paper Code : XI - A & B

[New Syllabus]

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।

Paper Code : XI - A

Full Marks : 10

Time : Thirty Minutes

Choose the correct answer.

Each question carries 1 mark.

1. The largest reservoir of sulphur in the biosphere is the —
 - (A) atmosphere
 - (B) ocean
 - (C) organism
 - (D) rocks

2. K-selected species shows —
 - (A) Low maturity rate
 - (B) Fast mortality
 - (C) Rapid rate of colonisation
 - (D) Fast sexual maturity

3. The transition zone between two ecosystems is termed as —
 - (A) ecad
 - (B) ecoline
 - (C) ecotone
 - (D) none of the above

4. Organism that helps to define an entire ecosystem —
 - (A) Eusocial species
 - (B) Invasive species
 - (C) Flagship species
 - (D) Keystone species

5. Organisms with very high intrinsic growth rates have —
- (A) long generation times
 - (B) short generation times
 - (C) no courtship behaviours
 - (D) no carrying capacities
6. Which of the following do not participate in the formation of photochemical smog?
- (A) NO_2
 - (B) O_3
 - (C) PAN
 - (D) CO_2
7. Median lethal dose (LD_{50}) values are determined by the amount of a substance that —
- (A) kills at least 50 individuals of the test population exposed to the substance
 - (B) kills a test population when given at least 50 ml of the substance
 - (C) kills at least 50% of the test population exposed to the substance
 - (D) kills a test population when given at least 50g of the substance
8. When organisms introduced into new ecosystems, it is called —
- (A) Natality
 - (B) Emigration
 - (C) Immigration
 - (D) Genetic Drif

9. The correct sequence of general process of succession is —

- (A) nudation-invasion-competition-reaction-stabilisation
- (B) nudation-competition-invasion-reaction-stabilisation
- (C) invasion-nudation-competition-reaction-stabilisation
- (D) nudation-competition-invasion-reaction-stabilisation

10. Argyrosis is caused by —

- (A) Hg
 - (B) Cd
 - (C) Ag
 - (D) Pb
-

P - III (1+1+1) H / 21 (N)

2021

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 : 4×2=8
 - (a) Define predation and competition with examples.
 - (b) Write a note on sedimentary cycle.
 - (c) Explain “vertical stratification” in a community with an example.
 - (d) Differentiate between habitat and niche.

2. Answer any *one* question : 12×1=12
 - (a) Diagrammatically explain J shaped and S shaped growth curves. What are environmental resistance and natality? Differentiate between emigration and immigration. 6+4+2=12
 - (b) Why pyramid of energy is not inverted? Why Y-shaped energy flow model is more realistic than any other energy flow models? Briefly discuss the survivorship curve with examples. 3+4+5=12

- (c) Explain niche overlap. Define competitive exclusion. Explain “Gause’s principle of competitive exclusion” with an example. What are ecotone and edge effect? 3+2+4+3=12

Unit - 2

(Environmental Biology and Toxicology)

3. Answer any *two* questions : 4×2=8
- (a) Write briefly on lead poisoning.
 - (b) Differentiate between BOD and COD.
 - (c) Define chronic toxicity with an example.
 - (d) Write a short note on Global warming.
4. Answer any *one* question : 12×1=12
- (a) Define air pollution. What are the sources and effects of air pollution? Add a note on Bio-magnification. 2+6+4=12
 - (b) What is eutrophication? State the impacts of pesticides on human health. Briefly illustrate public health hazards caused by fertilizers. Define LD₅₀ and LC₅₀. 1+4+4+3=12
 - (c) Write short notes on : 4×3=12
 - (i) Drawbacks of Deforestation
 - (ii) Botulism
 - (iii) Environmental Impact Assessment (EIA)
-