

2021

ZOOLOGY (Honours)

Paper Code : X - 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
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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
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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 : X - A

Full Marks : 10

Time : Thirty Minutes

Choose the correct answer.

Each question carries 1 mark.

1. Which phase of bacterial growth curve shows the reproduction rate equal to the equivalent death rate?
 - (A) Log phase
 - (B) Stationary phase
 - (C) Death phase
 - (D) Lag phase

2. Toll-like receptors are found on _____.
 - (A) Macrophages
 - (B) T lymphocytes
 - (C) B lymphocytes
 - (D) Mast cells

3. Which one of the following antibodies can cross placenta?
 - (A) IgA
 - (B) IgE
 - (C) IgM
 - (D) IgG

4. Pattern recognition receptors (PRR) include —
 - (A) LPS (lipopolysaccharide)
 - (B) Unmethylated CpG sequences
 - (C) Lipoteichoic acid
 - (D) Lectin-like molecules

5. Secondary antibody conjugate is used in —
- (A) Sandwich ELISA
 - (B) Direct ELISA
 - (C) Indirect ELISA
 - (D) Both A & C
6. In Chagas disease, Reduviid bugs function as —
- (A) Intermediate host
 - (B) Reservoir host
 - (C) Accidental host
 - (D) Primary host
7. Malaria can be prevented using —
- (A) Zinc tablet
 - (B) Chloroquine
 - (C) Inactivated vaccine
 - (D) Mebendazole
8. 'Antigenic variation' is an example of —
- (A) parasitic adaptation
 - (B) parasitic development
 - (C) pathogenicity
 - (D) host-parasite interaction

9. The infective stage of *Toxocara* sp. is —
- (A) Adult larva
 - (B) Embryonated egg with L3 larva
 - (C) Unembryonated egg
 - (D) Both B and C
10. _____ is the infective stage of *Taenia solium*.
- (A) Rhabditiform larva
 - (B) Microfilaria
 - (C) Metacercaria
 - (D) Cysticercus
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P - III (1+1+1) H / 21 (N)

2021

ZOOLOGY (Honours)

Paper Code : X - 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

(Microbiology and Immunology)

1. Answer any *two* questions : 4×2=8
 - (a) Write a short note on capsid of a virus.
 - (b) Compare B-lymphocytes and T-lymphocytes.
 - (c) Write a short note on bacterial plasmid.
 - (d) Write briefly on transmission and control of Typhoid.

2. Answer any *one* question : 12×1=12
 - (a) Describe briefly sandwich ELISA and mention its utility. Add a note on BCG vaccine. (5+3)+4=12
 - (b) Diagrammatically describe the various stages of bacterial growth curve. Define solid and liquid media. What is agar? 6+2+4=12

- (c) Draw a labeled diagram of an immunoglobulin molecule. What are Fab and Fc? Briefly describe the steps involved in the production of monoclonal antibodies by Hybridoma technology. $2+3+7=12$

Unit - 2

(Parasitology and Medical Zoology)

3. Answer any *two* questions : $4 \times 2 = 8$
- (a) Point out the major clinical symptoms and treatment of taeniasis. $2+2=4$
- (b) Define with example : obligatory parasite and facultative parasite. $2+2=4$
- (c) Write a short note on biological vector. 4
- (d) What do you mean by *Toxocara* infection? 4
4. Answer any *one* question : $12 \times 1 = 12$
- (a) Name two vector species of Malaria. Briefly describe their biology, role in disease transmission and control measures. $2+(5+3+2)=12$
- (b) What is zoonosis? Briefly discuss the parasitic adaptations of helminthes. Write a note on host-parasite interaction. $2+5+5=12$
- (c) Briefly describe the life cycle of the causative agent of African sleeping sickness. Write down its clinical features, preventive measures and treatment. $5+3+2+2=12$
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