

2020

BOTANY (Honours)

Paper Code : V - 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 : V - A

Full Marks : 14

Time : Twenty Minutes

Choose the correct answer.

Each question carries 1 mark.

1. In an ecosystem, which of the following shows one way passage?
 - (A) Carbon
 - (B) Nitrogen
 - (C) Minerals
 - (D) Free energy

2. Valley of flowers is located in —
 - (A) Nilgiri
 - (B) North East Himalayas
 - (C) Satpura Hills
 - (D) North West Himalayas

3. Species most vulnerable to extinction from human activities are those with —
 - (A) Low carrying capacity
 - (B) High population growth rate
 - (C) Large niches
 - (D) Many natural predators

4. The breakdown of detritus into small particles by earthworm is a process called —
 - (A) Fragmentation
 - (B) Mineralization
 - (C) Catabolism
 - (D) Stratification

5. The plant generally found in Alpine vegetation is —
- (A) *Rhododendron*
 - (B) *Tectona*
 - (C) *Leea*
 - (D) *Adina*
6. Which of the following is mismatched?
- (A) Halosere – Marshy habitat
 - (B) Lithosere – Rock surface
 - (C) Psammosere – Aquatic habitat
 - (D) Hydrosere – Hydrach
7. *Spermacoce stricta* is a indicator of —
- (A) Climate
 - (B) Pollution
 - (C) Iron-rich soil
 - (D) Petroleum deposits
8. Histogen tissues are classified on the basis of —
- (A) Plane of division
 - (B) Type of cells they form
 - (C) Position
 - (D) Origin
9. In hydrophytes —
- (A) Root system is well developed
 - (B) Vascular system is well developed
 - (C) Root system is partly developed
 - (D) Vascular system is poorly developed

10. Phellogen and phellem respectively denote —
- (A) Cork and cork cambium
 - (B) Cork cambium and cork
 - (C) Secondary cortex and cork
 - (D) Cork and secondary cortex
11. Atactostele is found in —
- (A) Dicot stem
 - (B) Monocot stem
 - (C) Dicot root
 - (D) Monocot root
12. Heart wood differs from sap wood in —
- (A) Presence of ray fibers
 - (B) Absence of vessel and parenchyma
 - (C) Having dead and non-conducting elements
 - (D) Being susceptible to pests and pathogens
13. Ovule is attached to the placenta of ovary wall by —
- (A) Chalaza
 - (B) Raphe
 - (C) Hilum
 - (D) Funicle
14. Formation of embryo directly from nucellus and integument is —
- (A) Adventitive polyembryony
 - (B) Apospory
 - (C) Apogamy
 - (D) Apomixis
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P - II (1+1+1) H / 20 (N)

2020

BOTANY (Honours)

Paper Code : V - B

[New Syllabus]

Full Marks : 56

Time : Two Hours Forty Minutes

The figures in the margin indicate full marks.

Group - A

1. Answer any *two* of the following : 4×2=8
 - (i) Write a short note on hypervolume niche. 4
 - (ii) Differentiate between food chain and food web. 4
 - (iii) Briefly discuss the process of ecological succession in a hydrosere. 4
 - (iv) Write the values of Biodiversity. 4

2. Answer any *two* of the following : 10×2=20
 - (i) What is cryopreservation? Describe different ex situ conservation strategies for endangered plant species. 2+8=10
 - (ii) Give a brief account on species composition of Sundarban vegetation. Briefly discuss the age and area hypothesis of endemism by J.C. Willis. 6+4=10
 - (iii) Describe the different components of ecosystem. Describe the pyramid of number with diagram. 7+3=10
 - (iv) Write notes on : 5×2=10
 - (a) Carrying capacity
 - (b) Biodiversity Hotspots

Group - B

3. Answer any *two* of the following : 4×2=8
- (i) Describe different types of stomata. 4
 - (ii) Give an account on the chemical composition of plant cell wall. 4
 - (iii) Describe anatomical features of Xerophytes. 4
 - (iv) Discuss different types of megagametogenesis. 4
4. Answer any *two* of the following : 10×2=20
- (i) Describe the anomalous secondary growth of *Bignonia* and *Dracaena* with diagram. 5+5=10
 - (ii) Give a detail account on the organization of shoot and root apex in dicot. 5+5=10
 - (iii) What is double fertilization? Describe the development of embryo in *Capsella bursapastoris* with labeled diagram. 2+8=10
 - (iv) Write notes on : 5×2=10
 - (a) Origin and function of cambium
 - (b) Types and development of pits
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