

2020

BOTANY (Honours)

Paper Code : II - 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 : II - A

Full Marks : 14

Time : Twenty Minutes

Choose the correct answer.

Each question carries 1 mark.

1. The production of sporophyte directly from a gametophyte without syngamy or sexual fusion is called —
 - (A) Apogamy
 - (B) Apospory
 - (C) Fertilization
 - (D) Apomixis

2. In *Marchantia* the rhizoids are —
 - (A) Branched unicellular
 - (B) Branched multicellular
 - (C) Unbranched unicellular
 - (D) Unbranched multicellular

3. Bryophytes are amphibians because —
 - (A) They require water for sexual reproduction
 - (B) They occur in damp places
 - (C) They are mostly aquatic
 - (D) All of the above

4. Winged pollen are found in —
 - (A) *Cycas*
 - (B) *Pinus*
 - (C) *Ginkgo*
 - (D) *Gnetum*

5. Gemma as vegetative reproduction unit is present in —
- (A) *Funaria*
 - (B) *Marchantia*
 - (C) Fern
 - (D) *Riccia*
6. Rhynia belongs to a geological period —
- (A) Silurian
 - (B) Devonian
 - (C) Carboniferous
 - (D) Permian
7. Carinal canals are found in —
- (A) *Pteris*
 - (B) *Equisetum*
 - (C) *Selaginella*
 - (D) *Psilotum*
8. Pseudoelaters are found in —
- (A) *Anthoceros*
 - (B) *Funaria*
 - (C) *Marchantia*
 - (D) *Polytrichum*
9. Sterile structure present in the centre of the capsule is called —
- (A) Elater
 - (B) Spore
 - (C) Columella
 - (D) Pseudoelater

10. Telome theory was proposed by —
- (A) Eanaes
 - (B) Zimmermann
 - (C) Sahani
 - (D) Mehta
11. Resin is obtained from —
- (A) *Pinus*
 - (B) *Cycas*
 - (C) *Gnetum*
 - (D) *Ginkgo*
12. The most primitive type of stele is —
- (A) Atactostele
 - (B) Protostele
 - (C) Dictyostele
 - (D) Siphonostele
13. Protonema is found in —
- (A) *Marchantia*
 - (B) *Polytrichum*
 - (C) *Porella*
 - (D) *Anthoceros*
14. Which pteridophyte is called as the “horse-tail fern” ?
- (A) *Equisetum*
 - (B) *Lycopodium*
 - (C) *Marsilea*
 - (D) *Selaginella*
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P - I (1+1+1) H / 20 (N)

2020

BOTANY (Honours)

Paper Code : II - B

[New Syllabus]

Full Marks : 56

Time : Two Hours Forty Minutes

Group - A

(Bryophytes and Pteridophytes)

1. Answer any *two* of the following : 4×2=8
 - (a) Mention four distinguishing characters of bryophyta. 4
 - (b) Explain the function of peristome teeth with suitable diagram? 2+2
 - (c) Distinguish between the eusporangiate and leptosporangiate types of sporangial development. 4
 - (d) Mention the important features to distinguish the strobilus of *Lycopodium* from that of *Equisetum*. Name one Indian species of *Lycopodium*. 3+1

2. Answer any *two* of the following : 10×2=20
 - (a) List the distinctive features of class Hepaticopsida. Describe the structure of mature sporophyte of *Marchantia* with the help of suitable diagram. 3+7
 - (b) Briefly describe the structural features and evolutionary significance of reconstructed genus *Calamites*. Add a note on its geological and geogr distribution. 8+2
 - (c) Describe the morphology of sporophyte in *Dryopteris* with suitable diagram. Describe the sporocarp of *Marsilea*. 6+4
 - (d) What is heterospory? Write a brief note on heterospory and seed habit. 2+8

Group - B
(Gymnosperm and Paleobotany)

3. Answer any *two* of the following : 4×2=8
- (a) Describe the advanced features of *Gnetum*. 4
 - (b) What are fossils? Give an outline classification of fossils based on the mode of preservation. 1+3
 - (c) Write down the economic importance of Gymnosperms. 4
 - (d) Write a short note on the genus *Williamsonia*. 4
4. Answer any *two* of the following : 10×2=20
- (a) Define Palaeobotany? Briefly describe the different process of fossilization. 2+8
 - (b) Give a comparative account of development process of male gametophyte of *Cycas* and *Pinus* with suitable diagrams. 2+8
 - (c) What is geological time scale? Describe the standard geological scale with major sequence of events of plant life. 2+8
 - (d) Write the outline classification of Gymnosperm by Stewart & Rothwell (1993). Write down the important features of gymnosperm. 6+4
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