

Department of Botany
School of Chemical & Life Sciences
Jamia Hamdard, New Delhi-110062

B.SC. (HONS.) / B.SC. (HONS WITH RESEARCH) – BOTANY
II SEMESTER EXAMINATION 2023

Paper Name: **Archegoniate**

Paper Code: **BBO-DSC201**

Time: **2 ½ hours**

Maximum Marks: **60**

Note: This paper has 3 sections A, B, and C.

Section A: Answer all the questions.

Section B: Attempt any **FOUR** Out of Five

Section C: Attempt any **TWO** out of Three

Instructions: Draw well-labelled diagrams wherever necessary

BLT-Bloom's Taxonomy Levels

1- Remembering, 2-Understanding, 3-Applying, 4-Analyzing, 5-Evaluating, 6-Creating

SECTION A

Very Short Type Question (15 questions)

15 x 1 = 15 marks

Q.No.	Question	Marks	BTL
1.	Why <i>Sphagnum</i> is known as bog moss?	1	2
2.	Highlight any two affinities of <i>Anthoceros</i> with angiosperms?	1	2
3.	Mention an important difference between pseudo-elaters and elaters?	1	2
4.	What is the economic importance of pteridophytes?	1	2
5.	Define telome.	1	1
6.	Mention any two significant contributions of Birbal Sahni.	1	2
7.	What are the functions of carinal canal and vallecular canal in <i>Equisetum</i> ?	1	2
8.	Define sorus in fern?	1	1
9.	Mention the scientific name for the gymnosperm commonly known as 'Sago Palm'.	1	1
10.	Enlist two chief morphological features of <i>Gnetum</i> which make it similar to angiosperms?	1	2
11.	What are retort cells?	1	2
12.	Mention the evolutionary time-period during which gymnosperms evolved?	1	2
13.	What is protonema stage in mosses?	1	1
14.	Name a living fossil among pteridophytes.	1	1
15.	Why bryophytes are ecologically important?	1	2

SECTION B

Short Type Question (Attempt any **FOUR** out of five)

4 x 5 = 20 marks

Q.No.	Question	Marks	BTL
1	Briefly discuss the concept of heterospory and seed habit in <i>Selaginella</i> .	5	3
2	Write a detailed account on structure of sporophyte in <i>Anthoceros</i> or <i>Marchantia</i> .	5	3
3	Provide the details of morphological and anatomical structure of coralloid roots of <i>Cycas</i> .	5	3
4	Write an account on <i>Rhynia</i> in relation to understanding of plant evolution.	5	3
5	Elaborate on economic importance of gymnosperms.	5	4

SECTION CLong type Question (Attempt any **TWO** out of Three)

2 x 12.5 = 25 marks

Q.No.	Question	Marks	BTL
1	Elaborate on the stelar evolution among Pteridophytes with suitable examples and diagrams.	12.5	4
2	Discuss the morphology and reproduction in <i>Pinus</i> .	12.5	4
3	Write a note on types and process of fossilization. Also discuss any two methods of fossil study.	12.5	4

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