The Assam Royal Global University, Guwahati
ROYAL SCHOOL OF LIFE SCIENCES
B.Sc. BOTANY 1ST SEMESTER
Semester End Examination, February 2022
Course Title : BIODIVERSITY IN PLANTS
Course Code: BOT142G101

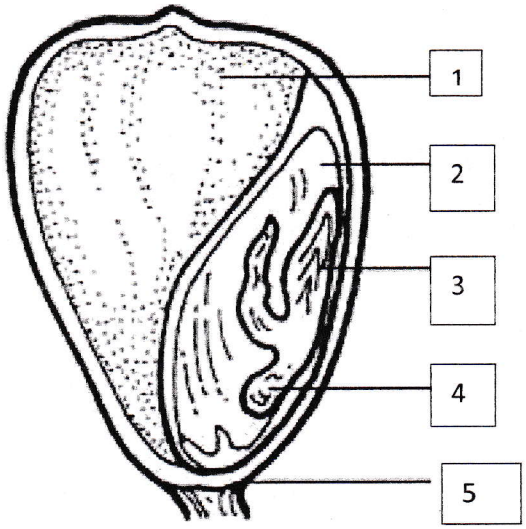
Time: 3 Hours **Maximum Marks: 70**

Note: Attempt all questions as per instructions given.
The figures in the right-hand margin indicate marks.

Section – A

1. Attempt **all questions**. (Maximum word limit 50) **2 x 8**

a. Who is known as A) Father of Bacteriology and B) Father of Medical Microbiology?
b. Name the genetic recombination methods in Bacteria.
c. Name the pigments found in red and brown algae.
d. What are Mycorrhiza?
e. Why are bryophytes known as the amphibians of land plants?
f. Name the 3 groups of pteridophytes with examples?
g. Name one living fossil belonging to plant kingdom. Where will you find it in North East India?
h. Label the parts of the seed as shown in the picture below:



Section – B

2. Attempt **any one** of the following: **12 x 1**

a. Illustrate and describe the morphology of Bacterial cell. Illustrate the growth curve of a bacteria in a culture medium. 10+2
b. How do viruses differ from Bacteria? Why are virus called non – living as well as living? Draw a labelled structure of bacteriophage. 3+5+4

3. Attempt **any two** of the following: **7 x 2**

a. Discuss with illustrations the range of fungus mycelium.
b. Briefly discuss the unusual habitats of algae with examples.

c. What are Lichens? Mention the types of lichens are found based on their structure and fungal partner. 2+5

4. Attempt **any two** of the following: **7 x 2**

a. Give a comparative account on Bryophytes and Pteridophytes.
b. Write short notes on ecological and economical importance of Pteridophytes.
c. Mention the general characteristics of Pteridophytes? Briefly discuss the reproductive methods in pteridophytes. 4+3

5. Attempt **any two** of the following: **7 x 2**

a. Discuss the economic importance of a leaves with examples
b. Give a comparative account of pteridophytes and gymnosperms.
c. Illustrate angiosperm plant body giving emphasis to the parts of a typical flower