No. of Printed Pages : 4 **BTPS–039**

INTEGRATED TEACHER EDUCATION PROGRAMME (ITEP) (BSCBED)

Term-End Examination

June, 2026

BTPS-039 : PLANT DIVERSITY

Time : 3 Hours *Maximum Marks : 100*

Note : *(i) Attempt all questions.*

(ii) Draw a labelled diagram wherever necessary.

1. (a) Fill in the blanks : 5×2=10

(i) The complete infective viral particle is called ..... .

(ii) Agar is obtained from ..... .

(iii) Uptake of naked DNA is called ..... .

(iv) Budding is common in ..... .

(v) Aseptate hyphae are also called as ..... .

(b) Define the following : 5×2=10

(i) Plasmid

(ii) Calyptra

(iii) Coralloid roots

(iv) Rachis

(v) Lichen

2. Differentiate any *four* of the following : 5×4=20

(i) Conjugation and Transformation

(ii) *Mucor* and *Rhizopus*

(iii) Bryophytes and Pteridophytes

(iv) Mutualism and Parasitism

(v) *Cycas* and *Pinus*

3. With the help of a suitable labelled diagram explain any *two* of the following : 2×10=20

   (i) Reproduction and economic importance of lichen.

   (ii) The external morphology, internal anatomy and methods of reproduction in *Selaginella* with suitable diagram.

   (iii) A comprehensive account of viruses, including their morphology, types based on genome, and modes of replication in host cell.

4. Write detailed notes on any *two* of the following : 2×10=20

   (i) Needle anatomy, male and female cones of *Pinus* along with a suitable diagram.

   (ii) Cell structure and different types of reproduction methods in bacteria along with their application in various fields.

   (iii) Evolutionary trends in Pteredophytes with special reference to seed habit and stelar system.

5. (i) Give a comprehensive account of *Polysiphonia*, including its external morphology, internal structure, modes of reproduction, and Tri-phasic life cycle. 10

(ii) Describe life cycle of *Puccinia* in detail along with a well labelled suitable diagram. 10

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