

U.G. 1st Semester Examination - 2024**BOTANY****[MAJOR]****Course Code : BOT-MJ-CC-T-01****[NEP-2020]**

Full Marks : 40

Time : 2 $\frac{1}{2}$ Hours*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any five questions : 2×5=10
- a) Who first crystallized virus? Name one example of a beneficial bacteria in human gut.
 - b) Which virus is known for its ability to cause cancer? What is the difference between DNA virus and RNA virus?
 - c) Name one example of a seaweed used in the production of cosmetics. Which algae group is known for producing β - Carotene?
 - d) Name one example of a fungus used in the production of antibiotics. What is the difference between a fungal hypha and pseudo-hypha?

[Turn over]

- e) Name two botanical gardens established during 18th century.
- f) Write two economically important pteridophytes with their uses.
- g) What is the primary purpose of a herbarium and how does it contribute in taxonomic research?
- h) What are isidia and soredia?

2. Answer in brief (any two) : 5×2=10

- a) State characteristics features of Rhodophyceae.
- b) How do land plants originate from aquatic life?
- c) Describe ecological and economic importance of Bryophytes.
- d) Describe the affinity of Angiosperms with Gymnosperms.

3. Answer any two questions : 10×2=20

- a) What is VAM? How does it differ from other types of mycorrhizae association? Describe the role of fungi in ecology. Write down general structure of the virus. 1+2+3+4
- b) Write down the distribution of algae with example. Add a note on toxic algae. 6+4
- c) Mention the salient features of psilophyta and filicophyta with example. 5+5
- d) Write short notes on: 5+5
 - i) Floral characteristics of Angiosperms
 - ii) Characteristics features of archegoniate.