

5(Sc)

UG-II/Bot.-V(H)/21

2021
BOTANY
[HONOURS]
Paper : V

Full Marks : 75

Time : 4 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.

Answer all the questions.

GROUP-A

(Systematics of Angiosperms)

[Marks : 50]

1. Answer any **two** of the following: 1×2=2
 - a) Write the name of a plant belongs to Alismataceae.
 - b) Name one economically important plant of Rubiaceae.
 - c) Define systematics.
 - d) Write full form of OTU.
2. Answer any **five** of the following: 2×5=10
 - a) What is Artificial system of classification?
 - b) What is herbarium? Write acronym of a herbarium.
 - c) Draw the floral diagram of the family Malvaceae.

- d) Write economic importance of the family Palmae.
 - e) What is Pioneer phase of taxonomy?
 - f) Write the purposes of scientific names.
 - g) What is Author citation? Write an example.
3. Answer any **three** of the following: 6×3=18
 - a) What is type? Write different types you have studied. 1+5
 - b) Define cladistics. Describe the concept of apomorphy and plesiomorphy. 1+5
 - c) Name the family where the ovary is obliquely placed. Write economic importance of that family. 1+5
 - d) What is ICN? Write the objectives of Taxonomy. 1+5
 - e) What is IAPT? Write the principles of ICBN. 1+5
 4. Answer any **two** of the following: 10×2=20
 - a) Compare the floral characters of Magnoliaceae and Ranunculaceae. Write down the economic importance of the family Euphorbiaceae. 7+3
 - b) Write down the systematic position of Orchidaceae according to Cronquist. State the diagnostic features with sketches and write economic importance of Orchidaceae. 2+5+3

[Turn over]

5(Sc)

[2]

- c) When a publication is called Effective and when it would be Valid? Write about Retention and Rejection of names. 5+5
- d) What is natural system of classification? Broadly outline any natural system studied by you. Write the merits of any phylogenetic system of classification. 2+5+3

GROUP-B

(Angiosperm's Morphology and Embryology)

[Marks : 25]

5. Answer any **three** of the following: 1×3=3
- a) What is the edible part of litchi?
- b) What is pappus?
- c) Write an example of epihydrogamous flower.
- d) What is epicalyse?
- e) What is tepal?
6. Answer any **three** of the following: 2×3=6
- a) What is apospory?
- b) Draw an imbricate placentation. Give an example where it is found.
- c) What is the embryological nature of coconut milk? Write the type of coconut fruit.

- d) What is mixed type of inflorescence? Write an example.
- e) Draw and label an orthotropous ovule.

7. Write short note on any **one** of the following:

6×1=6

- a) Write merits, demerits and contrivances of self pollination.
- b) Draw and cite examples of cohesion and adhesion of stamens.

8. Answer any **one** of the following: 10×1=10

- a) Define fruit. What is the difference between false fruit and true fruit? Write briefly with example different types of fruits. 1+1+8
- b) What is endosperm? Write down the ploidy level of endosperm in angiosperm. What is the reason of such ploidy level? With suitable sketches write different types of endosperm of angiosperm. 1+1+1+7
