

**B.Sc. 1st Semester (Honours) Examination, 2019 (CBCS)****Subject : Botany****Paper : CC-II****Time: 2 Hours****Full Marks: 40***The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer *any five* questions from the following: 2×5=10
- (a) How can you differentiate between bryophytes from algae in the light of reproductive structures? 2
- (b) Differentiate between eleter and pseudoeleter. 2
- (c) Name one pteridophyte where eleter is found? What is its function? 1+1=2
- (d) Write two unique characters of pteridophytes. 2
- (e) What is transfusion tissue? Where it is found? 2
- (f) What is incipient heterospory? Where it is found? 2
- (g) Distinguish between the rhizoids of a liverwort and a moss. 2
- (h) Name one anticancerous drug yielding gymnosperm. What is amber? 1+1=2
2. Answer *any two* questions from the following: 5×2=10
- (a) Write a short note on alteration of generations found in Bryophytes. 5
- (b) Write down the angiospermic characters of *Gnetum* sp. 5
- (c) What is corradoid root? What do you mean by girdle leaf trace? Comment on the female fructification of *Cycas*. 1+1+3=5
- (d) Describe the spore producing structure of *Pteris* with suitable diagram. Name one gold indicator pteridophyte. (2½+1½)+1=5
3. Answer *any two* questions from the following: 10×2=20
- (a) Draw and describe the different kinds of steles found in the genus *Lycopodium* with example. 5+5=10
- (b) What is heterospory? What is apospory & apogamy? Write down the seed habit characters found in the genus *Selaginella* sp. 2+3+5=10
- (c) Describe the gametophyte of *Marchantia* with labeled sketches and its anatomy. Discuss the sporophyte of *Anthoceros* with labeled diagram. Comment on the advanced features of this sporophyte. 4+4+2=10
- (d) With suitable diagram briefly describe the ovule structure of *Cycas* sp. Briefly describe with suitable diagram the development of male gametophyte of *Pinus* sp. 6+4=10