2022

BOTANY

[P.G.]

(M.Sc. Second Semester End Examination-2022)

PAPER-202

[Palaeobotany, Palynology and Plant Reproductive Biology]

Full Marks: 40 ***Time: 02 Hrs***

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

Unit-I

F.M=20

1. Answer any four Questions **4x1=04**

a. What is meant by chronostratigraphy?

b. What do you mean by "Pangea"?

c. Mention the periods of Paleozoiera.

d. Define stromatolite.

e. What is amber?

f. What is anindex fossil?

g. What is Coal ball?

2. Write short notes on [Any two] **2x4=08**

a. Briefly describe the Glossopteris flora with suitable examples.

b. Discuss the megafloral elements of Raniganj formation.

c. Describe the process of formation of petrified fossil

d. Write a short note on radiometric dating

3. Answer any one question **1x8=08**

a. Give an overview of continental hypothesis in the light of Plate Tectonics 8

b. Describe briefly the major events of plant life through geologic history 8

Unit-II

F.M=20

1. **Define any four of the following-** **4x1=04**

a. Name two important allergenic pollens of West Bengal

b. What is the function of viscin threads?

c. Give an image of the polar view of a trizono colpate pollen.

d. Mention two important bee plants of West Bengal.

e. Define melissopalynology.

f. What is amb?

g. What is the characteristics of sub-tectate pollen grains?

h. How will you differentiate a pteridophyte spore from an angiosperm pollen?

2. **Write short notes on [any two]** **2x4=08**

a) What is pollenkitt? How is it synthesized within a pollen tetrad? 2+2

b) Write a short note on LO analysis.

c) Describe the mechanism of allergic reactions caused by pollen grains inhuman system.

d) Explain briefly xenogamy. Mention two uses of forensic palynology. 2+2

3. **Answer any one Question** **1x8=08**

a. Discuss the application of palynology in phylogenetic deductions. Mention the different types of pollen vectors? 4+4

b. Discuss the sporoderm structure as per Erdtman. Classify the different types of pollen tetrads found in plants. 4+4