

(4)
GROUP—B

5. Answer *any two* questions from the following :

4×2=8

- (i) Write down the floral characteristics of bee and fly pollinated flowers.
- (ii) Write briefly about pollenkit and viscin threads.
- (iii) What are LO analysis and Edge analysis?
- (iv) Write a brief note on melissopalynology.

GROUP—C

6. Answer *any one* question from the following :

8×1=8

- (i) What is sporopollenin? Mention its chemical nature. Diagrammatically discuss different types of depressions found in the walls of the pollen grains. 1+1+6=8
- (ii) What is meant by allergic rhinitis? Why pollen grains cause allergy? Discuss the mechanism of allergic reactions in human system caused by pollen grains. 2+2+4=8

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2024

M.Sc. 2nd Semester Examination

BOTANY

PAPER : BOT-202

Full Marks : 40

Time : 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.

Illustrate the answers wherever necessary.

Answer from both the Sections.

Section—I

(202.1 : Palaeobotany)

(Marks : 20)

GROUP—A

1. Answer *any two* questions from the following :

2×2=4

- (i) What is meant by formation? How does it differ from a bed?

(2)

- (ii) What is meant by principle of superposition of rocks?
- (iii) Name two megafloral elements of Parsora formation.
- (iv) What is *Kakabekia umbellata*?

GROUP—B

2. Answer *any two* questions from the following :
4×2=8

- (i) Define fossil. In which kind of rocks fossil are being found? Enumerate the process of formation of rocks from where fossils are being unearthed? 1+1+2=4
- (ii) Write a short note about the formation of petrified fossils. 4
- (iii) How plant fossils can be dated by using isotope of carbon (C¹⁴)? 4
- (iv) Write down the important megafloral elements of Rajmahal formation. 4

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(Continued)

(3)

GROUP—C

3. Answer *any one* question from the following :
8×1=8

- (i) What is meant by Indian Gondwana sequence? Discuss the megafloristics of Talchir and Raniganj formations of Damodar Valley Basin. 2+3+3=8
- (ii) Discuss with suitable evidences the continental drift hypothesis in the light of plate tectonics. 8

Section—II

(202.2 : Palynology Pollination Ecology)

(Marks : 20)

GROUP—A

4. Answer *any two* questions from the following :
2×2=4

- (i) Differentiate colpate type of pollen grain from that of sulcate ones.
- (ii) Write down the differences between oblate and prolate type of pollen grains.
- (iii) What are stenopalynous taxa? Cite examples.
- (iv) What are allogamous flowers? Mention different types of allogamous flowers found in nature.

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(Turn Over)