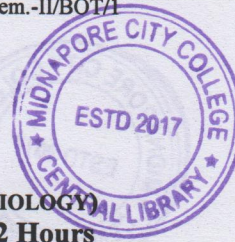


PG (NEW) CBCS
M.Sc. Semester-II Examination, 2019
BOTANY
PAPER: BOT-202

(PALAEOBOTANY, PALYNOLOGY & PLANT REPRODUCTIVE BIOLOGY)

Full Marks: 40

Time: 2 Hours



Use separate Answer-scripts for each unit

BOT 202.1

Palaeobotany

Marks-20

1. Answer any two questions of the following: 2×2=4
 - a) What is meant by index fossil?
 - b) What is lithostratigraphy?
 - c) Distinguish between cast and mould.
 - d) Distinguish between relative dating and absolute dating.

2. Answer any two questions of the following: 4×2=8
 - a) Graphically represent the geological time scale upto period.
 - b) Describe the megafloristics of Rajmahal formation (upper Gondwana).
 - c) Write a short note on Plate tectonics.
 - d) Discuss the role of fossils in stratigraphic deductions between different exposed rock strata.

3. Answer any one question of the following: 8×1=8
 - a) What is continental drift theory? Who is the proponent of this theory?
Write down the evidences in favour of this theory. 2+1+5
 - b) Describe plant succession through geological time scale. 8

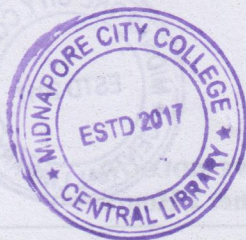
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BOT 202.2

Palynology & plant reproductive biology

Marks-20



4. Answer any two questions of the following: $2 \times 2 = 4$
- What does it mean by aperture of a pollen grain?
 - Name the important component found in pollen wall. Mention its chemical nature.
 - What does it mean by pollen vector?
 - How oblate pollen grain differ from prolate ones?
5. Answer any two questions of the following: $4 \times 2 = 8$
- Write a short note on melissopalynology.
 - Write briefly about extra exinox wall materials of pollen grains.
 - Define herkogamy and dichogamy. Discuss their role in breeding system of plants.
 - Write down the full form of ELISA and discuss the role of ELISA technique in detection of allergens.
6. Answer any one question of the following: $8 \times 1 = 8$
- What is sporoderm? Illustrate different types of surface features found in pollen grains/ spores. $2+6$
 - How simple aperture differ from compound ones? Discuss different types of compound apertures found in pollen grains.
