

# SEMESTER V

## MAJOR COURSE – MJ 10

### PALEONTOLOGY

Full Marks: 75    Time: 3 Hours

#### GROUP – A

##### Q1. Choose the correct answer:

1. Which of the following is a mode of fossil preservation? **(1 mark)**  
A. Replacement    B. Folding    C. Faulting    D. Melting
2. The theory explaining change in organisms through successive generations is called: **(1 mark)**  
A. Organic evolution    B. Uniformitarianism    C. Isostasy    D. Catastrophism
3. Cephalopods and gastropods are members of: **(1 mark)**  
A. Mollusca    B. Arthropoda    C. Echinodermata    D. Annelida
4. Gondwana Flora is mainly associated with: **(1 mark)**  
A. Ancient plant fossils    B. Marine mammals    C. Trilobites only    D. Recent plants
5. Palynology primarily deals with the study of: **(1 mark)**  
A. Fossil pollen and spores    B. Fossil bones    C. Igneous rocks    D. Metamorphic minerals

**Q2.** What is fossilisation? Briefly describe any two processes of fossilisation. **(5 marks)**

**Q3.** Write a short note on Ichnology and explain the significance of trace fossils. **(5 marks)**

#### GROUP – B

##### Answer any four questions.

**Q4.** Discuss the nature, importance and limitations of the fossil record and explain the principal modes of fossil preservation. **(15 marks)**

**Q5.** Explain taxonomy and the species concept with special reference to palaeontology. Discuss the evidence for organic evolution. **(15 marks)**

**Q6.** Describe the morphology and geological history of Gastropoda, Cephalopoda and Lamellibranchia. **(15 marks)**

**Q7.** Discuss vertebrate palaeontology with special reference to human evolution and the evolution of the horse. Mention intercontinental migration. **(15 marks)**

**Q8.** Explain palynology, biozones, index fossils and correlation. Discuss how fossils are applied in stratigraphic studies. **(15 marks)**

**Q9.** Discuss fossils as indicators of palaeoclimate, palaeogeography and palaeoecology. Explain biogeographic provinces and the role of microfossils. **(15 marks)**