3 (Sem–4/CBCS) GLG SE

2024

GEOLOGY

(Skill Enhancement Course)

Paper : GLG–SE–4034

(Stratigraphy and Palaeontological Field Work)

Full Marks : 50

Time : Two hours

The figures in the margin indicate full marks for the questions.

1. Choose the correct answer from the following questions : 1×4=4

   (a) Palaeozoic is the era of

   (i)   reptiles

   (ii) corals

   (iii) mammals

   (iv) trilobites

(b) Which of the following sedimentary structures is the best indicator of determination of flow direction ?

    (i) mud cracks

    (ii) ripple marks

    (iii) graded bedding

    (iv) rain prints

(c) The most favourable environment for the preservation of *calcarious* fossils are

    (i) shallow marine

    (ii) lacustrine

    (iii) fluvial

    (iv) swamp

(d) Geological ranges of *foraminifera* is

    (i) Cambrian to Recent

    (ii) Permian to Recent

    (iii) Triassic to Recent

    (iv) None of the above

2. Answer briefly the following questions : *(any three)*   2×3=6

    (a) What is formation ? Give an example.

    (b) What is a range zone ?

    (c) What are the conditions of fossilization ?

    (d) What is an index fossils ?

3. Write short notes on the following : *(any two)*   5×2=10

    (a) Principles of stratigraphic correlation

    (b) Preparation of lithology

    (c) Modes of preservation of fossils

    (d) Standard geological time scale

4. Answer the following questions : *(any three)*   10×3=30

    (a) Define fossil. Describe the importance of fossils in the study of evolutionary history, paleogeography and paleoenvironment.

    (b) What is biostratigraphy ? Discuss different kinds of 'biozones' with suitable sketches.

(c) What is lithostratigraphy? Discuss different units of lithostratigraphy with suitable Indian example.

(d) Discuss about chronostratigraphic divisions and units. What are the applications of chronostratigraphy?

(e) Discuss about sedimentological and palaeontological sampling techniques in the field.

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