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3 (Sem-4/CBCS) GLG SE

2023

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 : $1 \times 4 = 4$

(a) The basic unit of biostratigraphy is

(i) subzone

(ii) zone

(iii) chrone

(iv) system

Contd.

(b) Mold and cast are

- (i) - ve impression
- (ii) + ve impression
- (iii) - ve and + ve impression
- (iv) + ve and - ve impression

(c) In a sequence of layered rock the bedding plane indicates a single minor period of

- (i) erosion
- (ii) non-deposition or scour
- (iii) subelevation
- (iv) peneplanation

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

- (i) Ripple marks
- (ii) Mold cracks
- (iii) Graded bedding
- (iv) Rainprint

2. Answer briefly the following questions :

2×3=6

- (a) Define 'group'. Give example.
- (b) Write on fossilization.
- (c) Define state. What is the difference between 'lamina' and 'bed'.

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

- (a) Penecontemporaneous deformation structure
- (b) Organic evolution
- (c) Lithostratigraphic units
- (d) Absolute and relative dating

4. Answer the following questions : (**any three**)

10×3=30

- (a) Define fossil. What are the conditions required to be considered as fossil? Discuss in detail about the mode of preservation of fossil. 1+2+7=10
- (b) Discuss about sedimentological and palaeontological sampling techniques in field.

- (c) Define correlation. Elaborate palaeontological and non-palaeontological correlation. $2+8=10$
- (d) Define 'biostratigraphy'. Discuss about different biostratigraphic zones (biozones). $2+8=10$
- (e) Explain the importance of fossil in the context of evolutionary and biostratigraphic studies.
- (f) Write short notes on : $5+5=10$
- (i) Standard symbols used in geological studies
 - (ii) Index fossil with proper example