Total No. of Printed Pages—4

3 SEM TDC GEOH (CBCS) C 6

2021

(Held in January/February, 2022)

GEOLOGY

(Core)

Paper : C–6

(Sedimentary Petrology)

Full Marks : 53
Pass Marks : 21

Time : 3 hours

The figures in the margin indicate full marks for the questions

UNIT—1

(*Marks* : 8)

1. Write briefly about the transport mechanism of sediments by flowing water. 5

2. Write a short note on any *one* of the following : 3

(a) Provenance and its concepts

(b) Heavy minerals and their significances

UNIT—2

(*Marks* : 10)

3. *(a)* Define the concept of grain size and size grade scales. 3

(b) Write on the graphical presentation of grain size data. 3

(c) Write briefly on the particle shape and fabric. 4

UNIT—3

(*Marks* : 5)

4. Write an explanatory note on any *one* of the following : 5

(a) A classification scheme of sandstone

(b) A practical classification scheme of limestone

UNIT—4

(*Marks* : 18)

5. What do you mean by sedimentary environment? Write briefly about the processes and the characteristics of sediments deposited by meandering or braided river system. 2+8=10

(*Continued*)

6. Write short notes on any *two* of the following : 4×2=8

(a) Diagenesis of sandstone

(b) Walther's law of facies

(c) Paleocurrent indicators and their uses

(d) Chemical weathering

UNIT—5

(*Marks* : 12)

7. *(a)* Write petrographic notes on any *two* of the following : 5×2=10

(i) Arenite

(ii) Lithic graywacke

(iii) Limestone

(iv) Mudstone

(b) Choose the correct answer : 1×2=2

(i) Clay is a course-grained/fine-grained/ medium-grained clastic sediment.

(ii) Fine sand size fraction has a size range between 0·5–0·25 mm/ 0·25–0·125 mm/1–0·5 mm.

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