

C 80139

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Name.....31.....

Reg. No.....

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH/APRIL 2015

(UG-CCSS)

Core Course—Geology

GL 6B 17—SEDIMENTARY AND METAMORPHIC PETROLOGY

Time : Three Hours

Maximum : 30 Weightage

I. Objective Type Questions. Answer all *twelve* questions :

- 1 A coarse grained sedimentary rocks composed mainly on angular fragments :
(a) Conglomerate. (b) Breccia.
(c) Agglomerate. (d) Sandstone.
- 2 The grain size of clay :
(a) $< 1/256$ mm. (b) $> 1/256$ mm.
(c) $< 1/356$ mm. (d) $1/126 - 1/256$ mm.
- 3 A high grade metamorphic rocks :
(a) Schist. (b) Phyllite.
(c) Slate. (d) Khondalite.
- 4 A low grade metamorphic facies :
(a) Eclogite. (b) Amphibolite.
(c) Zeolite. (d) Granulite.
- 5 An accumulation of valuable minerals by gravity separation during the sedimentary process.
- 6 A cryptocrystalline sedimentary rock composed of silicon dioxide.
- 7 A metamorphic rock formed from carbonate rock.
- 8 A process of partial melting is known as :
- 9 Regolith is the loose unconsolidated material resting on the bed rocks (T/F).
- 10 Arkose is a detrital sedimentary rock, containing at least 75 % of rock fragments (T/F).
- 11 Mylonite a very distinctive lineated rock formed as a result of Dynamic metamorphism (T/F).
- 12 Evaporates are minerals result from the drying up of enclosed lakes, playas and seas (T/F).

(12 × ¼ = 3 weightage)

Turn over

II. Short Answer Type Questions. Answer *all* nine questions :

- | | |
|---------------------|---------------------------------|
| 13 Terra rossa. | 14 Contact metamorphic aureole. |
| 15 Skarn. | 16 Guano. |
| 17 Oolitic texture. | 18 Granoblastic texture. |
| 19 Ripple marks. | 20 Anatexis. |
| 21 Hornfels. | |

(9 × 1 = 9 weight)

III. Short Essay or Paragraph Questions. Answer any *five* questions :

- | | |
|---------------------------|-----------------------------|
| 22 Ferruginous deposits. | 23 Metamorphic zones. |
| 24 Types of conglomerate. | 25 Retrograde metamorphism. |
| 26 Sandstone. | 27 Charnockite. |
| 28 Cross bedding. | |

(5 × 2 = 10 weight)

IV. Essay Questions. Answer any *two* questions :

- 29 Write an essay on textures of sedimentary rocks with neat sketches.
- 30 Write an essay on metamorphic textures and give examples.
- 31 Write an essay on residual deposits and comment on their genesis.

(2 × 4 = 8 weight)