



2018 VI 13

1430

Seat No. :

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Time : 2½ Hours

GEOLOGY (New Pattern)

Subject Code

H	7	0	6
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Total No. of Questions : 5

(Printed Pages : 4)

Maximum Marks : 55

INSTRUCTIONS : i) **All** questions are **compulsory**.

ii) **Draw** neat labelled diagram **wherever** necessary.

iii) Answer **each** question on a **fresh** page.

iv) Write the numbers and sub-question numbers **clearly**.

v) Figures to the **right** indicate **full** marks.

vi) Answers to the questions carrying 1 mark should be written in **1 to 10** words.

vii) Answers to the questions carrying **2** marks should be written in about **50** words.

viii) Answers to the questions carrying **3** marks should be written in about **80** words.

ix) Answers to the questions carrying **4** marks should be written in about **120** words.

x) Select the proper alternative for multiple choice questions.

1. A) Complete the following statement by choosing the alternative given below the statement and write the completed statement : [1]

The metamorphic rock that shows composite foliation is

- Marble
- Slate
- Banded hematite quartzite
- Gneiss.

B) State the term used for the grain size of sandstone. [1]

C) Which igneous rock shows orientation of laths of plagioclase feldspars in the direction of lava flow ? State the type of texture involved in the rock. [2]



D) Explain the terms schistosity and gneissosity in the metamorphic rocks. [2]

OR

D) Explain the terms clastic and crystalline in the sedimentary rocks. [2]

E) Based on silica percentage and grain size distinguish between [2]

- Basalt and Dunite.

F) Write short notes on : [3]

- Temperature as an agent of metamorphism.
- Rudaceous sedimentary rocks.

2. A) Complete the following statement by choosing the alternative given below the statement and write the completed statement : [1]

To obtain a rock sample from the mantle, drilling will be done through oceanic crust rather than through continental crust because

- Continental crust is softer than the oceanic crust.
- Continental crust is thinner than the oceanic crust.
- Oceanic crust is thicker than the continental crust.
- Oceanic crust is thinner than the continental crust.

B) What is the term used for the largest fragment that are blown out during an volcanic eruption ? [1]

C) Write a note on 'Stromboli Volcano'. [2]

D) Define hypocentre of an earthquake. Which type of seismic waves are generated at the hypocentre ? [2]

E) Explain, with an example the various geological features formed during the collision of two oceanic plates. [2]

F) Explain the following : [3]

- Seismic discontinuities.
- Block mountains.

OR

F) Explain the following : [3]

- Shadow zone.
- Dome mountains.



3. A) Complete the following statement by choosing the alternative given below the statement and write the completed statement : [1]
- The vertical distance between the crest and the trough of a fold is known as
- Axis
 - Amplitude
 - Width
 - Wavelength
- B) What are slickensides ? [1]
- C) With neat labelled diagram explain the following : [2]
- Master Joint
 - Strike Joint
- D) State and explain the various terms for a bed resulting from its unequal uplift. [2]
- E) Write a note on recumbent fold. [2]
- F) With neat labelled diagram explain the movement of hanging wall in the various types of faults. [3]

OR

- F) With neat labelled diagram explain the older series in the various types of unconformities. [3]
4. A) Complete the following statement by choosing the alternative given below the statement and write the completed statement : [1]
- The crystals of mineral Beryl occurs in association with _____ [1]
- Lead deposits
 - Pegmatite deposits
 - Copper deposits
 - Mica deposits.
- B) State the chemical composition of mineral chalcopyrite. [1]
- C) Define ore. Where does the lead-zinc ore mineralisation occur in Rajasthan ? [2]
- D) Explain any three vein type of hydrothermal deposits. [3]
- E) Explain the following : [4]
- Generation of coal.
 - Stratigraphic succession of Goa.



5. A) Complete the following statement by choosing the alternative given below the statement and write the completed statement : [1]

The Mahadeva group belong to _____

- Dharwar supergroup
- Vindhyan supergroup
- Gondwana supergroup
- Cuddapah supergroup

- B) State the fundamental lithostratigraphic unit. [1]

- C) Which era marks the beginning of lava flow in peninsular India ? State the type of lava flowed in the eruption. [2]

- D) When does the standard geological time scale began ? State the various eons and eras of the standard geological time scale. [3]

- E) Explain the various principles of stratigraphy. [4]

OR

- E) Explain the various modes of preservation of fossils.
