

2019 VI 13

1430

Seat No.

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Time : 2½ Hours

GEOLOGY

Subject Code

H	7	0	6
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Total No. Of Questions : 5

(Printed Pages : 6)

Maximum Marks : 55

INSTRUCTIONS : (i) All questions are compulsory.

(ii) Answer each question on a fresh page.

(iii) Figures to the right indicate full marks.

(iv) Draw neat labelled diagram wherever necessary.

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

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

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

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

(ix) Select the correct alternative for the multiple choice questions and rewrite the statement.

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

The Volcanic equivalent of syenite is

- Pegmatite
- Basalt
- Trachyte
- Rhyolite

- (B) Which type of stress is responsible for the development of foliation in metamorphic rocks ? 1

- (C) What are essential minerals ? State the essential minerals in rock Granite. 2

- (D) Distinguish between conglomerate and limestone based on their texture and mineral composition. 2

Or

Distinguish between Slate and Gneiss based on their texture and mineral composition.

- (E) What do you understand by the term metamorphic aureole ? State the type of metamorphism associated with it. 2

- (F) Explain the following : 3

- Poikilitic texture
- Residual sedimentary rocks.

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

The oldest group of Cuddapah supergroup is

- Cheyair group
- Nallamalai group
- Papaghani group
- Kistna group

- (B) State the various time units. 1

- (C) Arrange the following Eras of the Standard Geological Time scale in an chronological order and state the periods of Mesozoic Era in chronological order : 2

Cenozoic Era, Paleozoic Era, Quaternary Era Mesozoic Era.

- (D) How are fossils useful in deducing paleoclimate of an area ? 2

- (E) State the classification of Vindhyan Supergroup and also state its age. 2

- (F) Explain any *three* principles of stratigraphy. 3

Or

Explain any *three* modes of preservation of fossils.

3. (A) Complete the following statement by choosing the correct alternative given below the statement and write the completed statement : 1

If the intensity of an earthquake at its epicentre is VII, then the intensity 700 kms away from epicentre will likely to be

- IX
- XII
- VIII
- IV

(B) What are pyroclastics ? 1

(C) Name the point within the earth where the elastic waves are generated ? What is the structural feature associated with that point ? 2

(D) Explain Pelean type of volcanic with its features. 2

(E) Explain with an example the collision of an ocean plate with a continental plate. 2

(F) Explain in brief the "Elastic Rebound Theory". 3

Or

Explain in brief the "formation of fold mountains" with reference to Geosynclinal theory.

4. (A) Complete the following statement by choosing the correct alternative given below the statement and write the completed statement : 1
- A block of the rock that lies above the fault plane is termed as
- Sickensides
 - Foot wall
 - Fault surface
 - Hanging wall
- (B) Draw a neat labelled diagram of a step fault. 1
- (C) With neat labelled diagram explain the formation of nonconformity. 2
- (D) Explain the following : 3
- Strike joint
 - Hade
 - Conformable sequence
- (E) Explain with neat labelled diagram the various elements of folds. 4

Or

Explain with neat labelled diagram the various elements of faults.

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

The impermeable layer responsible for trapping of oil is known as

- Sandstone
- Anticline
- Cap rock
- Natural gas

- (B) Define the term ore. 1

- (C) Write a note on distribution of Gold deposits in India. 2

- (D) How are placer deposits formed ? 3

- (E) Explain the following : 4

- Formation of coal deposits
- Formation of economic mineral by the process of weathering.