

3 SEM TDC GEO M 1

2017

(November)

GEOLOGY

(Major)

Course : 301

(Structure and Tectonics)

Full Marks : 48

Pass Marks : 19/14

Time : 2 hours

*The figures in the margin indicate full marks
for the questions*

(Structural Geology)

(Marks : 30)

1. What is an unconformity? Describe about different types of unconformities. How can it be recognised in the field? 1+4+4=9
2. Write notes on any *two* of the following : 4½×2=9
 - (a) Diastrophic and non-diastrophic structure

(b) Geometric, kinematic and dynamic aspects of structural geology

(c) Genetic classification of fault

3. What is joint? Describe about the origin of joints in rocks. Write the classification of joints.

1+4+4=9

Or

Write about the relation among the following :

4½×2=9

- (a) Joints with major structures
(b) Foliation and lineation with fold

4. (a) Draw an anti-formal syncline. 1

(b) Which of the following indicates top and bottom of beds?

- (i) Graded bedding
(ii) Ripple mark
(iii) Current bedding
(iv) All of the above

(Choose the correct answer) 1

(c) Morphological classification of fold is based on the variation of ____ of a fold.

- (i) angles of limbs
(ii) position of fold axis
(iii) orthogonal thickness

(Choose the correct answer) 1

(**Tectonics**)

(Marks : 18)

5. Write about the plate boundaries and their characteristics. 8

Or

Describe the tectonic framework of India with respect to the physiographic divisions.

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

(a) Island arc

(b) Earthquake and volcanic belt

(c) Dauki Tear Fault and Disang thrust

7. Answer the following : 1×2=2

(a) Which river of Assam is believed to flow along Jorhat fault?

(b) Name the fault which separates the Assam shelf from Naga hills.

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