(c) The erosional contact between pluton and sedimentary layer is called _____ .

(d) Value of apparent dip along strike is _____ .

2. Define any *three* of the following :   1×3=3

   (a) Stretch

   (b) Dilation

   (c) Plane strain

   (d) Pure shear

3. Write short notes on any *three* of the following :   3×3=9

   (a) Deviatoric stress

   (b) L-S tectonite

   (c) Hooke's law and proportionality limit

   (d) Scale of geological structure

4. Write about the elements of a folded structure with suitable diagram.   7

5. Write descriptive notes on any *two* of the following :   7×2=14

   (a) Joints and rock cleavage

   (b) Geometric classification of fold

   (c) Types of unconformities

   (d) Fold-fault structures

(Continued)

(Tectonics and Geodynamics)

(Marks : 17)

6. Fill in the blanks (any *two*) :   1×2=2

   (a) Major fault that marks the southern edge of Meghalaya plateau is known as _____.

   (b) Failure arm of triple junction rifting is called as _____.

   (c) Depth of challenger deep is _____ m below sea level.

7. Write short notes on any *two* of the following :   3½×2=7

   (a) Association of volcanic belts with plate boundaries

   (b) Association of transformed faults with divergent plate boundaries

   (c) Differences between island arc and volcanic arc systems

8. How do plate tectonics control the landforms? What is the structural setup of NE India? Write the major physiographic subdivisions of Indian subcontinent.   3+3+2=8

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(June/July)

GEOLOGY

(Core)

Paper : C–4

(Structural Geology and Tectonics and Geodynamics)

Full Marks : 53
Pass Marks : 21

Time : 3 hours

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

(Structural Geology)

(Marks : 36)

1. Fill in the blanks (any *three*) :　　　　1×3=3

    (a) A fold with interlimb angle of 53° is a
    _____ fold.

    (b) State of stress at a point is _____ order
    tensor.