3 SEM TDC GEO M 1

Or

Describe different structural elements on a . fault with neaft radmayoNi) cuss the simple mechanism of faulting. What are the criteria for recognition YOO'LOAD ive two diagrams for fault lines representing vertical and inclined faults (nrojaMo)neal map provided the topography is uneven. 106 : saruo 9+4+4+2=12

(Structure and Tectonics)

3. Explain the following terms (any two): 3x2=6 Pass Marks : 19 outsile (10)

Time: 2 hoursolenstall

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

(3.1 .: Structural Geology) wanA .

True and appeared hips of an inclined planar surface are measured on a

- 1. What are different types of stresses? Describe different units of stress and strain. What are ductile and brittle behaviour of rocks? What do you mean by plasticity and rigidity in rocks? 2+2+2+3=9
- (c) Powdered, crumbly fault rocks with 2. Describe the geometrical elements in a fold. Discuss the simple mechanism of folding. Describe the geometric and morphological classification of folds od) 3+3+6=12

1x3=3

Describe different structural elements on a fault with neat sketches. Discuss the simple mechanism of faulting. What are the criteria for recognition of faults? Give two diagrams for fault lines representing vertical and inclined faults on a geological map provided the topography is uneven.

2+4+4+2=12

3. Explain the following terms (any two): 3×2=6

Structure and Tectonics

- (a) Foliations and lineations
- (b) Extension joints

S SEM TEC GEO M 1

- (c) Determination of top and bottom of sedimentary sequences
- 4. Answer the following as directed : $1 \times 3 = 3$
 - (a) True and apparent dips of an inclined planar surface are measured on a ----I. What are different types canalquesses? nients bue seems to atmu (Fillbin the blank)

- (b) A cylindrical fold has fold axes. 2+2+2+3=9 (Fill in the blank)
 - (c) Powdered, crumbly fault rocks with biot minor visible rock fragments are known gouge/fault breccia/crust Describe the geometric and (aisopidalogical

(Choose the correct option)

3+3+6=12

(3.2 : Tectonics)

(Marks: 18)

5. Define plate tectonics. What are the volcanic and earthquake belts? What do you mean by the term 'tripple junction'? Describe the features associated with mid-oceanic ridge on the basis of present-day knowledge. What is an 'island arc'?

2+4+2+3+1=12

Or

Write explanatory notes on the following: $3\times4=12$

- (a) Plate boundaries
- (b) Rift valley
- (c) Deep-sea trenches
- (d) Seafloor spreading
- 6. Write short notes on the following (any two):

 $2 \times 2 = 4$

- (a) Belt of Schuppen
- (b) Naga thrust and Disang thrust
- (c) Main boundary fault
- (d) Hot spot and mantle plume

7. Fill in the blanksotooT : S.S)

 $1 \times 2 = 2$

- (a) Convergent boundaries are mainly associated with faults.
- 5. Define plate tectonics What are the volcanic and estimated iliqoN and for shirts and n(d) in by the term 'tapple junction? Describe the features associated with mid-oceanic ridge on the basis of presented with mouledge. What is an fisland are?

 2+4+2+3+1=12

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Write explanatory notes on the following:

- (a) Plate boundaries
 - (D) Rift valley
- ic) Deep-sea trenches
- (et) Seafloor spreading
- Write short notes on the following (airy two): 2×2=4
 - (a) Belt of Schuppen
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 - fell Hot spot and mantle plume