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UG/2nd Sem/Geolo/H/19 (Pr.)

2019

B.Sc.

2nd Semester Examination

**GEOLOGY (Honours)**

**Paper - C4P**

**(Elements of Geochemistry)**

**[Practical]**

Full Marks : 20

Time : 3 Hours

*The figures in the margin indicate full marks.  
Candidates are required to give their answers  
in their own words as far as practicable.*

Answer the following questions.

1. Interpret the given geological map with the help of strike lines, dip of the beds. Draw a suitable profile section and describe the stratigraphic sequence accordingly (Map attached). 5
2. Three vertical bore holes are driven on a level country at three points A, B and C. C is situated 500 m west of A and B is situated 400 m NNW

[ Turn Over ]

( 2 )

of C. Three vertical bore holes intersect Coal Seam at depth of 360 m, 280 m and 150 m respectively. Find the attitude of the Coal Seam.

Another borehole x is driven at a distance of 800 m from C towards true dip direction of the coal seam. At which angle, a bore hole should be driven to reach the coal seam attaining minimum depth ?

3. A planar fault contact contains Slickenside lineations that trend  $N60^{\circ}W$ . The fault contact has an attitude of  $N10^{\circ}E, 80^{\circ}NW$ . Find out the following :

(a) What is the plunge of the lineation ?

(b) What is the rake angle of the lineation relative to the fault contact ?

4. Laboratory Note Book. 2
5. Viva-voce. 3
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