

**5 SEM TDC GEO M 7**

**2 0 1 3**

( November )

**GEOLOGY**

( Major )

Course : 507

( **Surveying and Field Mapping** )

Full Marks : 48

Pass Marks : 19

Time : 2 hours

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

( **Surveying** )

( Marks : 24 )

1. Define surveying. Write about the importance of surveying in geology. 1+5=6

Or

Describe the compass survey methods. 6

2. Describe the plane table intersection survey method. Write three advantages and three disadvantages of plane table survey.  $4\frac{1}{2}+1\frac{1}{2}=6$

Or

What do you understand by levelling? How is levelling carried out in the field?  $1+5=6$

3. Write short notes on any *three* of the following :  $3\times 3=9$

(a) Plane survey and geodetic survey

(b) Triangulation and traversing

(c) The instruments used in plane table survey

(d) Importance and advantage of survey techniques in the field

4. For large-scale survey, which of the following surveys is suitable? (Compass/Plane table) 1

5. Convert the quadrant bearing S 30° W into whole circle bearing. 1

6. What is the difference between surveying and levelling? 1

( Field Mapping )

( Marks : 24 )

7. What are the main useful data essential for preparation of a geological cross section? Write about the procedure of drawing geological cross section. 2+6=8

8. Discuss the various types and methods of geological mapping. 7

Or

Write a note on observation, measurement and collection of useful information from field studies of the outcrops of rocks.

9. Write about the procedure of preparing a geological report from the field data collected during field geological investigation. 7

10. Clinometer compass is used for determination of — and —. 1  
(Fill in the blanks)

11. To keep the Brunton compass in horizontal position — is used. 1  
(Fill in the blank)

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