

2018

(November)

GEOLOGY

(Major)

Course : 507

(**Surveying and Field Mapping**)

Full Marks : 48

Pass Marks : 19/14

Time : 2 hours

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

UNIT—17.1

(**Surveying**)

(Marks : 24)

1. Write notes on any *two* of the following : $4 \times 2 = 8$

- (a) Compass traversing
- (b) Methods of linear measurement
- (c) Whole circle bearing and quadrant bearing

2. Discuss about the importance of triangulation and traversing in survey. $3+3=6$
3. Answer any *two* of the following : $4 \times 2 = 8$
- (a) Discuss the basic principles of surveying.
- (b) Discuss about the differences between geodetic and plan surveying.
- (c) Write about the methods of plane table surveying.
4. (a) What is levelling? 1
- (b) A for bearing is measured as $N 67^\circ W$. Express its value in whole circle bearing and find the value of back bearing for the same. $\frac{1}{2} + \frac{1}{2} = 1$

UNIT—17.2

(**Field Mapping**)

(Marks : 24)

5. Write notes on any *two* of the following : $4 \times 2 = 8$
- (a) Map reading
- (b) Clinometer
- (c) Base map

6. What is geological mapping? Write about the types of geological mapping. 1+5=6
7. Write on any *two* of the following : 4×2=8
- (a) Plotting of geological data on a base map
 - (b) Importance of field studies
 - (c) Methods of determination of relative ages of rocks in the field
8. (a) What is an exposure? 1
- (b) In the field, which of the following will help in the determination of relative age of rocks? 1
- (i) Lithology
 - (ii) Fossils
 - (iii) Structures

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