

Total No. of Questions—8]

[Total No. of Printed Pages—3

| | |
|-------------|--|
| Seat No. | |
|-------------|--|

[5252]-110

S.E. (Civil Engineering)(Second Semester)

EXAMINATION, 2017

ENGINEERING GEOLOGY

(2012 PATTERN)

Time : Two Hours

Maximum Marks : 50

N.B. :— (i) Solve/Write the answers to any *four* questions in single answer-book only.

(ii) Neat diagrams must be drawn wherever necessary.

(iii) Figures to the right indicate full marks.

(iv) Assume suitable data, if necessary.

1. (a) What are Sedimentary Rocks ? Distinguish between White sandstone and Ferruginous Sandstone. [6]

(b) What is overlap ? Describe inlier and outlier with neat sketches. [6]

Or

2. (a) What is Metamorphism ? Describe two-parallel textures represented by metamorphic rocks. [6]

(b) What is folding ? Give nomenclature of the fold. Describe any *two* types of folds. [6]

P.T.O.

3. (a) Describe any *three* features developed by River Erosion. [6]
- (b) Why observations and precautions are necessary in the core drilling process ? [6]

Or

4. (a) Write a note on 'physiographic divisions of India'. [6]
- (b) How nature of the rocks can be assessed on number of pieces present in one RUN ? [6]
5. (a) Describe any *two* geological conditions leading to natural springs. [7]
- (b) Write notes on feasibility of Tunelling through : [6]
- (i) Anticline
- (ii) Syncline.

Or

6. (a) Explain with appropriate example feasibility of dam alignment across a fracture. [7]
- (b) Explain the product of volcanoes. [6]
7. (a) What are Natural and Artificial causes of Landslides ? Enlist measures to prevent landslide. [7]
- (b) What Geological studies are required to be carried out in reservoir area of proposed dam site. [6]

Or

8. (a) What are Core Recovery and RQD ? On the basis of the following data calculate core recovery and RQD. [7]

| Run in Meters | Piece no. | Length of each piece in 'cm' | Nature of Fracture at lower end | Remark |
|------------------|-----------|---------------------------------|---------------------------------------|------------------|
| 3 m to 6 m | 1 | 10 | M | Granite rocks |
| | 2 | 09 | J | |
| | 3 | 09 | M | |
| | 4 | 30 | J | |
| | 5 | 34 | J | |
| | 6 | 51 | J | |
| | 7 | 55 | J | |
| | 8 | 60 | J | |
| | 9 | 42 | J | |

- (b) Describe feasibility of dam in folded areas. Draw neat diagrams.

[6]