## 53 (CE 305) ENGL

## 2016

## **ENGINEERING GEOLOGY**

Paper: CE 305

Full Marks: 100

Time: Three hours

## The figures in the margin indicate full marks for the questions.

Answer question No. 1 and any four from the rest.

- 1. (a) What is the basic difference between:
  - (i) Dyke and batholith
  - (ii) Arenaceous rocks and rudaceous rocks
  - (iii) Deflation and abrasion
  - (iv) Recumbent fold and plunging fold
  - (v) Rotational landslide and translational landslide
  - (vi) True dip and apparent dip.

(b)	Describ	e th	ie ;	yielding	capacity	of
	igneous	and	sec	dimentary	rocks.	
						0

- 2. (a) What is crystal system? Describe all the crystal systems with suitable examples.
  - (b) Define resource engineering, earthquake and landslide. 5
- 3. (a) Define building stones. What are its essential physical properties?
  - (b) What are concordant bodies? Describe the various concordant bodies. 8
  - (c) Describe briefly the mode of formation of sedimentary rocks in nature. Also give the commonly used sedimentary rocks as building stones.
- 4. (a) What are the engineering consideration of a fault? How faults are taken care of in case of a reservoir?
  - (b) Discuss the classification of faults with diagrams. 15

5.	(a)	Discuss	rock	weathering	and	its	types.
							6

- What is sitting up of a reservoir? (b) Describe the various structural features of a dam site. 14
- Describe the geological work done by (a) 6. 10 glaciers.
  - Define metamorphism and its types. (b) How gneiss and marble are formed and by which metamorphism? 10
- 7. (a) What are the basic causes of folding? Describe the various parts of folding. 12
  - What are shock waves? Discuss its (b) types and manner of propagation. 8