

Total number of printed pages-3

3 (Sem-5/CBCS) GLG RE

2021

(Held in 2022)

GEOLOGY

(Regular Elective)

Paper : GLG-RE-5016

(Economic Geology and Hydrogeology)

Full Marks : 60

Time : Three hours

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

1. Answer the following as directed : $1 \times 7 = 7$

(a) Define tenor of an ore.

(b) What is water table ?

(c) The subsurface water occurring in the zone of saturation is called _____.

(Fill in the blank)

Contd.

(d) Bauxite ($Al_2O_3 \cdot 2H_2O$) is an ore of :

(i) Copper

(ii) Zinc

(iii) Aluminium

(iv) Iron

(Choose the correct answer)

(e) Water occurring in the confined aquifer exist under pressure more than atmospheric. *(Write True/False)*

(f) What is an aquifer ?

(g) Ore deposits formed simultaneously with respect to the host rock is called _____.
(Fill in the blank)

2. Write short notes on the following : $2 \times 4 = 8$

(a) Piezometric surface

(b) Aquitard

(c) Permeability

(d) Sublimation.

3. Write briefly on the following : *(any three)*
 $5 \times 3 = 15$

(a) Metasomatic replacement

- (b) Confined aquifer with suitable diagram
- (c) Specific yield and specific retention
- (d) Placer deposits
- (e) Perched groundwater.

4. Answer the following questions in detail :
10×3=30

- (a) Vertical distribution of subsurface water.

Or

- (b) Origin and occurrence of coal in North-East India.
- (c) Processes involved in the magmatic origin of economic mineral deposit.

Or

- (d) Subsurface methods of groundwater exploration.
- (e) Write mineralogy, mode of occurrence, origin and uses of Iron and Limestone.

Or

- (f) Origin and occurrence of groundwater.