

Total No. of Printed Pages—4

6 SEM TDC GEO M 7

2 0 1 8

(May)

GEOLOGY

(Major)

Course : 607

(Hydrogeology and Oceanography)

Full Marks : 48

Pass Marks : 19/14

Time : 2 hours

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

UNIT—25.1

(Hydrogeology)

(Marks : 36)

1. Answer the following as directed : 1×3=3

(a) Permeability is measured in units called

_____.

(Fill in the blank)

(b) Name the material which has the highest porosity.

(c) The underground water that occurs within the zone of aeration is termed as

(Fill in the blank)

2. Write explanatory notes on any *two* of the following : 3×2=6

(a) Rainwater harvesting

(b) Specific yield and storage coefficient

(c) Importance of water table contour maps in groundwater study

3. What are the differences between water table and piezometric surface? Describe different methods of groundwater exploration. 3+5=8

4. Describe the different problems of groundwater in coastal areas. How can these problems be solved? 5+3=8

5. Write briefly on any *three* of the following : 2×3=6

(a) Aquifer and aquiclude

(b) Transmissivity

(c) Storage coefficient and storativity

(d) Problems of arsenic in groundwater

(3)

6. What is Darcy velocity and how does it differ from average interstitial velocity? Explain why Darcy velocity is always less than average interstitial velocity of an aquifer.

3+2=5

UNIT—25.2

(**Oceanography**)

(*Marks : 12*)

7. Fill in the blanks :

1×2=2

- (a) A long, narrow and deep depression on the ocean floor is called ____.
- (b) Submarine earthquakes are mainly responsible for ____.

8. Write short notes on any *three* of the following :

2×3=6

- (a) Mid-oceanic ridge
- (b) Bathymetry
- (c) Origin of continental shelf
- (d) Transitional wave
- (e) Gulf stream
- (f) Lagoon

9. Define oceanography. Mention different scopes of studying oceanography. 4

Or

Describe the different topographical features of the ocean floor. 4
