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6 SEM TDC GEO M 7

2019

(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) The zone where pore spaces are half-filled by water and the other half is filled by air is called zone of aeration/saturation.

(Choose the correct one)

(2)

(b) Transmissivity = _____ \times thickness.
(Fill in the blank)

(c) The permissible limit of arsenic in groundwater is _____.
(Fill in the blank)

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

(a) Specific yield and specific retention

(b) Rainwater harvesting

(c) Groundwater recharge

3. Define aquifer. Explain its types with schematic diagrams where necessary. 2+6=8

4. Write a note on groundwater provinces of India with a map. 6+2=8

5. Write in brief on any *three* of the following : 2 \times 3=6

(a) Storage coefficient and storativity

(b) Problems of arsenic in Assam

(c) Water table and piezometric surface

(d) Movement of groundwater

6. What is spring? Write a brief note on the types of spring. 2+3=5

(3)

UNIT—25.2

(**Oceanography**)

(Marks : 12)

7. Fill in the blanks : 1×2=2

- (a) Flat-topped seamounts are called _____.
- (b) Ocean surface currents are driven by the wind, sub-surface currents are driven by the _____.

8. Write short notes on any *three* of the following : 2×3=6

- (a) Deep sea trench
- (b) Ekman transport
- (c) Spring tide
- (d) Tsunami
- (e) Ooze
- (f) Coral reefs

9. Describe the theories of origin of ocean basin. 4

Or

Describe the methods and instruments used for study of topography of the ocean floor. 4

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