

**16P440**

(Pages:2)

Name.....

Reg. No.....

**FOURTH SEMESTER M.Sc. DEGREE EXAMINATION, MARCH 2018**

(Regular/Supplementary/Improvement)

(CUCSS - PG)

**CC15 PGEL 4C13–GEOCHEMISTRY AND SEDIMENTOLOGY**

(Applied Geology)

(2015 Admission onwards)

Time: Three Hours

Maximum:36 Weightage

**Section A**

(Short answer type questions.)

Answer *all* questions. Each question carries *1* weightage.

1. Cosmic abundance of elements.
2. Composition of earth's core.
3. Entropy.
4. Free energy.
5. First law of thermodynamics.
6. Eh - pH.
7. Stable isotopes of Hydrogen.
8. Fission track dating.
9. Weathering.
10. Diagenesis.
11. Argillaceous rocks.
12. Sieve analysis.
13. Non-clastic sediments.
14. Mineralogical maturity.

(14 x 1= 14 weightage)

**Section B**

(Write Short Essays)

Answer any *seven* questions. Each question carries *2* weightage

15. Geochemical classification of elements.
16. Gibb's phase rule.
17. Geochemical constitution of earth's crust and mantle.
18. Geochemical cycle.
19.  $^{14}\text{C}$  dating.
20. Grain size classification.
21. Heavy minerals and their significance.
22. Arenaceous rocks.

23. Textures in sedimentary rock.  
24. Statistical parameters in the study of sediments.

**(7 x 2 = 14 weightage)**

**Section C**

(Write essays)

Answer *two* questions. Each question carries **4** weightage.

25. Give an account of the Rb-Sr isotopic systematics. Add a note on its petrogenetic significance.

or

26. Describe the principle of Atomic Absorption Spectrometer and Flame photometer.

27. Explain the different structures in sedimentary rock. Add a note on their significance.

or

28. Describe the different sedimentary basins in India.

**(2 x 4 = 8 weightage)**

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