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SECOND SEMESTER EXAMINATION 2018/2019 SESSION
COURSE TITLE: APPLIED GEOCHEMISTRY
COURSE CODE: GLS 432
TIME: 2 HOURS

INSTRUCTIONS: Answer two questions from Section A and two from Section B. Diagrams and other illustrations are very important

SECTION A:

Answer any two questions:

1. (a) What are trace metals? (2marks)
(b) Give step by step detailed explanation of the processes involved in the manufacture of cement. (10marks) (c) Discuss micro gas survey (6marks)
2. (a) What are the undesirable effects of CaO , MgO , Na_2O and K_2O in cement. (3marks)
(b) Discuss the aim and principles of the surface methods of geochemical prospecting for hydrocarbon. (Diagram Necessary) (10marks)
(c) Discuss the characteristics of industrial minerals (5marks)
3. (a) Give a detailed description of "process materials" (7marks).
(b) Describe the chemistry of the compounds in a cement mix. (5marks)
(c) What are the environmental importance of cadmium, lead and mercury? (6marks)

SECTION B

Answer any two questions

4. (a) Discuss any three applications of limestone.
(b) Enumerate the six basic investigation targets in Biogeochemical survey.
(c) Discuss the necessity for removing harmful materials from the run-off-mine ore.
5. (a) Zeolites have three major applications. Discuss.
(b) Write on the environment of formation of bauxites
(c) Write exhaustively on the two major applications of feldspar.
- 6 (a) Write briefly on the general requirement for limestone to be used in cement manufacture.
(b) Write briefly on the principal end members of feldspar.
(c) State the importance of storage in ore beneficiation.