SH-II/Geology/201/C-T3/19

B.Sc. 2nd Semester (Honours) Examination, 2019

GEOLOGY

(Elements of Geochemistry)

Paper : 201/C-T3

Course ID : 22011

Time: 1 Hours 15 Minutes **Full Marks: 25**

The figures in the right hand side margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer *any five* questions of the following: 1×5=5

(a) Name two minerals found in meteorites.

(b) State the basic law of radiometric dating.

(c) What are atmophile elements?

(d) Name one mineral in which ionic bond is present.

(e) Name one refectory and lithophile element.

(f) Name a method of dating applicable for sedimentary rocks.

(g) Name the most abundant element in the earth crust.

(h) What is petrographic province?

2. Answer *any two* questions of the following: 5×2=10

(a) Write a short note on chemical bonding with special emphasis on mineral composition.

(b) Briefly describe about the properties of siderophile and chalcophile elements.

(c) Write briefly the significance of distribution coefficient (K_d) in geochemistry.

(d) Write a brief note on classification of meteorites.

3. Answer *any one* question from the following : 10×1=10

(a) Briefly describe the geochemical behaviour of silicon and aluminium.

(b) What are the different types of decay of radioactive elements? Give examples. Briefly discuss about the principle of radiometric dating by Rb-Sr method. 2+2+6=10

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