B. Sc. 4th Semester (Honours) Examination, 2021

GEOLOGY

Course Id: 42011 **Course Code: SHGEL-401C-8(T)**

Course Title: Metamorphic Petrology

Time: 1 Hour 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* of the following questions: 1x5 = 5
   a. Define metamorphism as per IUGS-SCMR.
   b. What is grade of metamorphism?
   c. Define migmatite.
   d. What is contact aureole?
   e. Name one characteristic mineral of blueschist.
   f. What is orthogneiss?
   g. Define enthalpy (H) of a system.
   h. Give an example of exchange geothermometer.

2. Answer *any two* of the following questions: 5x2 = 10
   a. Briefly describe the role of fluid during metamorphism.
   b. Write a brief note on the crystalloblastic series.
   c. Write short notes on: (i) symplectite, and (ii) corona 2.5x2 = 5
   d. Write a brief note on paired metamorphic belts.

3. Answer *any one* of the following questions: 10x1 = 10
   a. Describe different types of mineral reactions which take place during metamorphism.
   b. State the mineralogical and textural changes that take place during progressive metamorphism of mafic rocks from greenschist facies to granulite facies conditions.

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