

ACTIVITY CODE: 1903108021

B. Sc. 6th Semester (Honours) Examination, October 2020

GEOLOGY

Course ID: 62017

Course Code: SHGEL-604DSE-4(T)

Course Title: Geodynamics

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. Which belt is popularly known as ring of fire?
 - b. What is aulacogen?
 - c. Mention one important ophiolite occurrence in India.
 - d. Who proposes the theory of seafloor spreading?
 - e. What is melange?
 - f. Name two endogenous processes operate in the Earth.
 - g. What is geoid?
 - h. Write the name of the subchron which recorded the last reversal in magnetic field occurred at 20000 years ago.
 - i. What is the most abundant volcanic rock in volcanic arc?
 - j. Write the name of the most recent supercontinent.

 2. Answer *any two* of the following questions: 5X2 = 10
 - a. Describe the important characteristics of hotspots.
 - b. Briefly describe different types of natural remanent magnetisation (NRM) found in rocks.
 - c. Write a brief note on different types of plate boundaries with sketches.
 - d. Briefly describe various ways of interactions of hotspots with the lithospheric plates.
 - e. Write a brief note on seismic and petrological Moho.

 3. Answer *any one* of the following questions: 10X1 = 10
 - a. Describe the Wilson cycle with sketch.
 - b. Describe the important characteristics of different layers of an ideal ophiolite sequence.
 - c. Compare the magmatic activities in ocean ridges and subduction zones.
-