

Roll No:					

The Assam Royal Global University, Guwahati

Royal School of Environmental & Earth Sciences UG (Generic Elective 4/8) 2nd /4th /6th Semesters Semester End Examination, June 2023 Course Title: EARTH SCIENCES

Course Code: GEOL162G202
Time: 3 Hours

Maximum Marks: 70

Note: Attempt all questions as per instructions given.

The figures in the right-hand margin indicate marks.

Section - A

1. Attempt all questions. (Maximum word limit 50)

2 x 8

- a. Define crust and mantle.
- b. What is transform fault boundary?
- c. Define gorges.
- d. Define littoral zone.
- e. What is paraffin? Give example.
- f. Differentiate between coking and non-coking coal.
- g. Define water table.
- h. Define permeability. How can porosity be expressed?

Section - B

2. Attempt any two of the following:

6x 2

- a. What is the age of earth? Describe geological time scale.
- b. Define magma and lava. Illustrate the interior of the earth showing both mechanical and chemical layers.
- c. Differentiate between plate boundary and plate margin. Why is divergent boundary also called constructive boundary? Explain.

3. Attempt any two of the following:

7 x 2

- a. Define disintegration of rocks. Analyse the different factors controlling the rates of weathering.
- b. Describe the different erosional features of stream.
- c. What is base level of erosion? Explain the different drainage patterns.

4. Attempt any two of the following:

7 x 2

- a. What is crude oil? Describe the rank of coals.
- b. Define source rock. Explain the role of a good cap rock.
- c. Define hydrocarbon trap. Explain the causes of migration of petroleum.

5. Attempt any two of the following:

7 x 2

- a. What is cal de sac pore? Differentiate between confined and unconfined aquifer.
- b. Explain the vertical distribution of ground water.
- c. Define artificial recharge. Explain the various components of rain water harvesting.