

B.Sc. Semester-V Examination, 2022-23**GEOLOGY [Honours]****Course ID : 52016 Course Code : SH/GEL/503/DSE-1(T)****Course Title : Fuel Geology**

Time : 1 Hour 15 Minutes

Full Marks : 25

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any **five** of the following questions: $1 \times 5 = 5$
- What is maceral?
 - What is humic coal?
 - What is Thermal Alteration Index (TAI)?
 - Name two petroliferous basins of western India.
 - What is Gas Hydrate?
 - Define oil-shale.
 - Which geological age is most significant for petroleum generation?
 - Which rock is most efficient as a cap rock?

2. Answer any **two** of the following questions: $5 \times 2 = 10$
- Compare between coal-ball and ball-coal.
 - Briefly describe the major characteristics of anthracite and bituminous coal.
 - State the essential condition of depositional environment for hydrocarbon formation.
 - What are the different factors of hydrocarbon maturation?
3. Answer any **one** of the following questions: $10 \times 1 = 10$
- What is trap? Describe with neat sketches about different types of traps for petroleum occurrences. $2 + 8 = 10$
 - Briefly discuss the in-situ theory and drift theory of coal formation.