

2026
(Regular)
Geology (Core)
Paper Code : GL-CE-2114
Paper Name : Rocks and Minerals

Time : 2 hours

Full Marks : 45

The figures in the margin indicate full marks for the questions.

1. Choose the correct answer of the followings : 1×4=4
- a) Which mineral is the primary constituent of limestone ?
- i) Quartz ii) Calcite
iii) Feldspar iv) Magnetite
- b) Which of these is an example of an extrusive igneous rock ?
- i) Granite ii) Basalt
iii) Gabbro iv) Diorite
- c) Which of the following is considered as monomineralic rock?
- i) Dolerite ii) Granodiorite
iii) Granite iv) Dunite
- d) "Foliation" is most commonly associated with which rock type ?
- i) Clastic sedimentary rocks ii) Intrusive igneous rocks
iii) Metamorphic rocks iv) Chemical sedimentary rocks
2. Answer the following questions : 2×3=6
- a) What do you understand by crystalline and amorphous substance ?

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- b) What is your concept on isotropic and anisotropic mineral ?
- c) What is your concept on texture and structure of rocks ?
3. Write notes on **any three** of the following : 5×3=15
- Polarizing microscope.
 - Composition of common rock forming minerals.
 - Sedimentary textures.
 - Bowen's reaction.
 - Physical properties and chemical composition of Microcline and Calcite.
 - Optical properties of Plagioclase and Biotite.
4. Answer **any two** of the following questions : 10×2=20
- Define metamorphism. Discuss in detail about different agents and types of metamorphism. 1+4+5=10
 - What is magma ? Write your concept on a magmatic differentiation. Explain different mode of occurrences of igneous rock. 1+3+6=10
 - Define a mineral and crystal. Write an explanatory note on various optical properties of minerals with necessary diagram. 2+8=10
 - What do you mean by silicate structure ? Define different types a silicate structures with examples. 2+8=10

