

Reg. No.:



Name:

University of Kerala

U8922

Second Semester FYUGP Degree Examination, April 2025

Discipline Specific Core Course

GEOLOGY

UK2DSCGLY151 - Mineralogy

Academic Level: 100-199

Time: 1 Hour 30 Minutes(90 Mins.)

Max. Marks: 42

Part A. 6 Marks.Time:6 Minutes.(Cognitive Level:Remember(RE)/Understand(UN)) Objective Type. 1 Mark Each.Answer all questions

Qn No.	Question	CL	CO
1	What property of a mineral refers to its ability to resist being scratched?	RE	1
2	What is the hardness of quartz on the Moh's scale Options : A)3 B)5 C)7 D)9	RE	1
3	Pyroxenes and amphiboles have which silicate structure	UN	2
4	What is the term for the process of a mineral breaking along smooth planes?	UN	1
5	The Si: O ratio in this group is 2:5, which is the silicate group?	UN	2
6	Feldspathoids exhibit which type of silicate structure Options : A)Nesosilicate B)Sorosilicate C)Tectosilicate D)Phyllosilicate	UN	2

Part B.8 Marks.Time:24 Minutes.(Cognitive Level:Understand(UN)/Apply(AP))Short Answer. 2 marks each.Answer all questions

Qn No.	Question	CL	CO
7	What are sectile minerals. Give an example	UN	1
8	Explain solid solution with examples	UN	3

Qn No.	Question	CL	CO
9	How does the specific gravity of a mineral relate to its density. Name the mineral known as “heavyspar”	AP	1
10	What is Ionic bonding? How are they different from others and give an example for ionic bonding.	AP	2

Part C. 28 Marks. Time: 60 Minutes (Cognitive Level: Apply (AP)/Analyse (AN)/Evaluate (EV)/Create (CR)) Long Answer: 7 marks each. Answer all 4 Questions choosing among options * within each question

Qn No.	Question	CL	CO
11	A) Explain the physical properties and chemical composition of Quartz. OR B) Discuss about minerals showing characters depending upon cohesion & elasticity	AP	3, 1
12	A) Compare the physical properties of the Mica group with the Feldspar group of minerals. OR B) Analyse the various physical properties of minerals.	AN	3, 1
13	A) Explain polymorphism, isomorphism and pseudomorphism with examples. OR B) Write about the cleavage in minerals, and how does it differ from fracture? Provide examples.	EV	1, 3
14	A) Explain chemical bonding in minerals. Create a diagram illustrating how electrons are shared or transferred in different types of bonding. OR B) Describe the general chemical composition and physical properties of olivine. Evaluate how the composition affects its hardness, color, and density?	CR	1, 3