

PRATICE SET

End Semester Examination, December, 2025

Program: BTECH (MINING)

Semester: III

Subject: MINING GEOLOGY I

Subject Code: 8PCCMiE202

Course Outcome:

On the completion of the Course, the students will be able to:

Course Outcomes	Description
CO1	Enhance the technical knowledge on shape, size, mass & density of earth, age of earth, structure of the earth.
CO2	Understand the concept of mineralogy with special light on sulphides, silicates and oxides minerals.
CO3	Explain the process of petrology and formation of rock.
CO4	Understand the concept of paleontology and stratigraphy & coal and oil belts of India.

UNIT I

SECTION A (5 Marks)

1. Define the term "Wind erosion" CO 1 (Remember)
2. Identify the layers of the Earth's interior. CO 1 (Remember)
3. State the primary agents of erosion CO 1 (Understand)
4. Differentiate Ore and mineral with example. CO 1 (Understand)

SECTION B (10 Marks)

5. Give a brief explanation of internal structure of earth. CO 1(Understand)
6. Illustrate the igneous rock formation with a diagram.CO 1 (Understand)
7. Explain how rivers erosion to landscape formation? State Hydrothermal vein. CO 1 (Understand)
8. Elaborate the three Different volcanoes with neat sketch diagram. CO 1 (Understand)
9. Briefly explain the rocks cycle formation with neat sketch diagram? Also describe rock cycle formation process in details. CO 1 (Apply)

SECTION C (20 MARKS)

10. Evaluate the different types of hypothesis of the origin of the earth? Also briefly classify any two hypothesizes in details with diagram. CO 1(Apply)

UNIT II

Section A (5 marks)

11. Identify common silicate minerals. (CO2) (Understand)
12. Write the sequence of Mohr`s scale of hardness. CO 2(Understand)
13. State the any three ores of Iron with its physical properties. CO-2(Remember)

Section B (10 marks)

14. Suggest the classification of minerals & properties of all common silicate minerals group. (CO2) (Understand)
15. Illustrate how can we differentiate between Quartz and Mica with example? CO 2 (Understand)
16. Compare between rock forming minerals and ore forming minerals. With example. CO 2 (Apply)
17. Compare the significance of the polymorphism & Pseudomorphism properties of minerals in detail with suitable examples. CO 2(Apply)
18. Give the classification of minerals & properties of all common Oxide minerals group. (CO2) (Apply)

Section C (20 marks)

19. Can you illustrate the relationship between mineral structure and its physical and chemical properties with neat sketch. (CO2) (Apply)
20. With neat sketch explain the hydrothermal vein. Describe the process of mineral crystallization. (CO 2) (Apply)

UNIT III

Section A (5 marks)

21. What do you understand by magma & Lava? CO 3(Remember)
22. Discuss about the Petrology in brief? CO 3(Understand)
23. Can you be able to differentiate between Extrusive form and Intrusive form. CO 3 (Apply)

SECTION B (10 Marks)

24. State the short notes on
(a) Quartzite
(b) Gabbro`s

- (c) Marble CO 3(Remember)
25. Compare any three activities beneath the earth surface at the time of magma eruption with diagram. CO 3(Apply)
26. Illustrate the metamorphic rock processes of metamorphism? CO 3 (Understand)
27. In your study how we assume the occurrence of igneous rock in earth crust works explain with neat sketch diagram. CO 3(Apply)
28. Describe the classification of common metamorphic rock in brief. CO 3(Understand)
29. Describe the Process of Sedimentary? Also classify the common Sedimentary rocks, Conglomerate, Sandstone, and limestone. CO 3 (Apply)

SECTION C (20 Marks)

30. As a mining Engineer, how do you evaluate texture, structure & formation of Sedimentary rock and classify its common type rocks classifications? CO 3 (Analyze)

UNIT IV

Section A (5 marks)

31. Discuss about the paleontology. CO 4(Understand)
32. Explain concept of stratigraphy? CO 4(Understand)
33. Define Index fossils? CO 4 (Remember)
34. Discuss about the oil & gas petroleum formation. CO 4(Understand)

SECTION B (10 Marks)

35. Discuss the Principal of stratigraphy and principal of Correlation of fossils. CO 4(Understand)
36. Illustrate the concept of Cenozoic Era, Mesozoic Era, Paleozoic Era give its example. CO 4 (Understand)
37. Recommend economic importance of lower & upper gondwana system. CO4 (Apply)
38. Briefly classify the different types of fossils & describe the principle of stratigraphy in brief CO 4(Understand)

SECTION C (20 Marks)

39. Classify the Geological time scale index. Also brief about Condition of preservation of fossils, forms and uses with neat sketch. CO4(Apply)
40. Oil & gas are found below the earth surface. Illustrate the process how Oil petroleum and gases are formed beneath the earth. CO4 (Apply)

SUMMARY SHEET

CO Wise

CO	Q. No	Marks
CO1	1,2,3,4,5,6,7,8,9,10	90
CO2	11,12,13,14,15,16,17, 18,19,20	105
CO3	21,22,23,24,25,26,27, 28,29,30	95
CO4	31,32,33,34,35,36,37,38,39,40	100
Total		365

Unit Wise

Unit	Q. No	Marks
Unit 1	1,2,3,4,5,6,7,8,9,10	90
Unit 2	11,12,13,14,15,16,17, 18,19,20	105
Unit 3	21,22,23,24,25,26,27, 28,29,30	95
Unit 4	31,32,33,34,35,36,37,38,39,40	100
Total		365

Blooms Taxonomy Level (BTL) Wise

BTL	Q. No	Marks
LOT	1,2,5,6,7,8,9,11,12,13,15,16,20,21,22,24,26,27,28,29,31, 32,33,34,35,36,40	170
HOT	4,10,14,17,18,19,23,25,30,37,38,39	195
Total		365

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Disclaimer: - This is a Practice set. The Question in End term examination will differ from the Practice set. This Practice set is meant for practice only.