

S.No. 3492

16 SMBGLI

(For candidates admitted from 2016–2021 batch)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2023.

Part III — Geology – Major Based Elective

ENGINEERING AND MINING GEOLOGY

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20)

Answer ALL questions.

1. What are the engineering properties of rocks?
2. Draw a neat sketch of Arch dam.
3. What is Soil stabilization?
4. Name any two types of Tunneling.
5. Define Sampling.
6. What is Percussion Drilling?
7. Define Panning.
8. Define Stopping.

9. Write down the definition for the following mining terms.
- (a) Shaft
 - (b) Tunnel
 - (c) Raise
 - (d) Winze
10. What is Augering?

PART B — ($5 \times 5 = 25$)

Answer ALL questions, choosing either (a) or (b).

11. (a) Shortly explain the discontinuities in Rock.
- Or
- (b) What are the geological investigation taken in dam site?
12. (a) What are the geological problems in road construction?
- Or
- (b) What are the types of Tunneling?
13. (a) Give an short notes on Core samples and their methods of preservation.
- Or
- (b) Shortly explain the geological logging of borehole samples.

14. (a) Write an short note on explosives used in mining operations.
- Or
- (b) Give an short notes on Alluvial mining.
15. (a) Shortly explain the Stopping method in underground mining.

Or

- (b) Shortly explain the caving methods in underground mining.

PART C — ($3 \times 10 = 30$)

Answer any THREE questions.

16. What is an Dam? Write the types of dams with an neat sketch.
17. Briefly explain about the geological investigations on Landslides.
18. Give an brief account on Drilling methods used in mining operations.
19. Brief explain about the Open cast mining.
20. Give an detail account on coal mining methods.