C14-MNG-105

4056

BOARD DIPLOMA EXAMINATION, (C-14)
OCTOBER/NOVEMBER-2018
DMNG-FIRST YEAR EXAMINATION

ELEMENTS OF MINING

Time : 3 Hours] [Total Marks: 80

PART-A

4X10=40

Instructions : 1. Answer **All** questions.
2. Each question carries FOUR marks
3. Answer should be brief and straight to the point

1. (a) State the post mining operations.

   (b) Define the term ore..

2. (a) List the different types of entry to mineral deposits.

   (b) Define the term shaft with sketch..

3. Define (a) reserve station (b) cross cut.

4. Define terms (a) Sludge (b) Core.

5. Define the terms (a) Low Explosive and (b) high explosive

6. (a) State the composition of detonator.

   (b) List the types of initiations of explosive.

7. Define the terms (a) Cap sensitive explosives (b) non-cap sensitive explosives.

8. (a) List the poisonous mine gases.

   (b) State the composition of mine air.

9. (a) List the methods of detection of CO.

   (b) List the inflammable mine gases.

10. (a) List the reasons for changes in the composition of air while passing through mine workings.

(b) List the different devices used for detecting fire damp.

PART-B

10X4=40

Instructions : 1. Answer any **four** questions. Each question carries **ten** marks.

2. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

11. (a) Explain the different mining operations.

(b) State the applicable conditions for shaft and incline.

12. (a) Compare underground mining and opencast mining in any tem aspects.

(b) Give the classification of coal seams based on inclination and gassiness.

13. (a) Explain the screw feed mechanism.

(b) State the reasons for deviation of bore holes.

14. (a) State the purpose of mud flushing.

(b) List the different methods of core recovery.

15. (a) Explain the characteristics of explosives.

(b) Mention the field of application of each kind of detonators.

16. (a) Define the term permitted explosives.

(b) Classify permitted explosives.

(c) List the applicabilities of permitted explosives.

17. (a) Explain the working principle of flame safety lamp.

(b) Explain the percentage test with flame safety lamp.

18. (a) Explain the accumulation and percentage tests conducted with flame safety lamp.

(b) List the changes for reduction of percentage of oxygen in mine air.

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