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C14-MNG-**105**

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BOARD DIPLOMA EXAMINATION, (C-14)
MARCH/APRIL-2019
DMNG - I 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 (Two marks for each bit).
3. Answer should be brief and straight to the point and shall not exceed five simple sentences.

1. (a) List any four mining industries in the country
   (b) Define the term ore
2. (a) List various post mining operations
   (b) Define the term incline with sketch
3. (a) Define the term face
   (b) Define the term barrier
4. (a) What is the purpose of sludger in drilling
   (b) Define the term core
5. (a) Define the term explosive
   (b) State the composition of low explosive
6. (a) Define the high explosive
   (b) Define the term booster
7. (a) Classify the permitted explosives
   (b) List the types of initiations
8. (a) State the composition of surface air
   (b) Give the classification of mine gasses
9. (a) List an two inflammable mine gases
   (b) State any two reasons for changes in the composition of mine air while passing through the mine workings
10. (a) List any two detectors used for detecting inflammable gases in mines
    (b) List any two noxious gases occur in mines

PART-B

10X4=40

Instructions : 1. Answer any **FOUR** questions.
2. Each question carries **TEN** marks.
3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

11. (a) Elaborate the contribution of mining activity in the cause of human civilization 5 M
    (b) Explain the various stages of pre mining operations 5 M
12. (a) Give the classification of coal seams based on depth and gassiness 5 M
    (b) Compare underground mining vs opencast mining 5 M
13. (a) list and five uses of boreholes in mining industry 5 M
    (b) List the drilling tools used in rotary method of drilling and write the purpose of any five tools 5 M
14. (a) Describe screw feed mechanism with a neat sketch 5 M
    (b) Explain single tube core barrel 5 M
15. (a) State the uses of explosives in mining industry 5 M
    (b) Compare high explosive vs low explosive 5 M
16. (a) Describe constructional details safety fuse 5 M
    (b) Describe constructional details delay detonator with sketch 5 M
17. (a) State the occurrence and physiological effects of white damp 5 M
    (b) Explain the constructional details of bottom feed flame safety lamp with sketch 5 M
18. (a) Explain the accumulation test conducted with flame safety lamp 5 M
    (b) State the purpose of safety lamp in mines 5 M

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