GUJARAT TECHNOLOGICAL UNIVERSITY

| BE - SEMESTER-VII (OLD) - EXAMINATION - SUMMER 2017 | | | | |
|--|-------------|---|------------------|--|
| Su | bject | Code: 172201 Date: 09/05/202 | Date: 09/05/2017 | |
| Subject Name: Mine Planning | | | | |
| | | | Total Marks: 70 | |
| Instructions: | | | | |
| | | Attempt all questions. | | |
| | | Make suitable assumptions wherever necessary. | | |
| | 3. | Figures to the right indicate full marks. | | |
| Q.1 | (a) | What is mine planning? What are the components of mine planning? | 07 | |
| | (b) | Write a short note on Taylor's mine life rule. | 07 | |
| Q.2 | (a) | Explain Bench Geometry and its layout with illustrative diagram. | 07 | |
| • | (b) | Explain grade tonnage curve. | 07 | |
| | | OR | | |
| | (b) | Describe parameters affecting design of haul road. | 07 | |
| Q.3 | (a) | Explain mine system and sub-system. | 07 | |
| | (b) | What is advantage & disadvantage of underground mine working | 07 | |
| | | OR | | |
| Q.3 | (a) | Describe various methods of reserve estimation. | 07 | |
| | (b) | What do you mean by cutoff grade? How do you determine the Cutoff grade for Copper ore? | 07 | |
| Q.4 | (a) | What is merits & demerits of open cast mine working? | 07 | |
| c | (b) | What is role of feasibility study report for metallic & non-metallic minerals? OR | 07 | |
| Q.4 | (a) | Write a note on rate of production and mining losses | 07 | |
| | (b) | What are various economic considerations for optimization of mine design? | 07 | |
| Q.5 | (a) | Explain (1) Stripping ratio (2) Break even stripping ratio. | 07 | |
| | (b) | Write a short note on Dump Planning. | 07 | |
| | | OR | | |
| Q.5 | (a) | Explain the planning and scheduling of production in an open cast mine. | 07 | |
| | (b) | Write a note on Ultimate pit configuration. | 07 | |
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