

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VIII • EXAMINATION – SUMMER 2014

Subject Code: 182203

Date: 03-06-2014

Subject Name: Mining & processing of Dimensional stone

Time: 10:30 am TO 01:00 pm

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

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|-----------|--|----|
| Q-1 | (a) Explain resources of sandstone and marble as dimensional stone in India. | 07 |
| | (b) Explain geotechnical and mineralogical properties of dimensional stone. | 07 |
| Q-2 | (a) Describe quarry waste and processing waste with its application as environmental aspect of stone industry. | 07 |
| | (b) Write a short note on marble deposits of Rajasthan and Gujarat. | 07 |
| OR | | |
| | (b) Write a short note on abrasive properties of dimensional stone. | 07 |
| Q-3 | (a) List out machinery used for dimensional stone mining and processing. Which are the factor to be considered while selecting it? | 07 |
| | (b) Describe working of derrick crane machine with its sketch. | 07 |
| OR | | |
| Q-3 | (a) Explain mine layout of marble and granite mine with use of diamond wire saw cutting methods. | 07 |
| | (b) Explain various types of polishing machine. | 07 |
| Q-4 | (a) Explain various criteria for selection of dimensional stone deposit. | 07 |
| | (b) Write short note on : Automatic tiling plant. | 07 |
| OR | | |
| Q-4 | (a) Describe environmental impact of mining and processing of dimensional stones. | 07 |
| | (b) Explain allotment procedure for quarry licence / grant of mining lease and other legal aspects for granite mineral . | 07 |
| Q-5 | (a) Explain blasting method used for dimensional stone mining. | 07 |
| | (b) Describe preparation & mounting of blade / discs used for dimensional stone mining. | 07 |
| OR | | |
| Q-5 | (a) Advantages and disadvantages of flame jet cutting method used for Dimensional stone mining. | 07 |
| | (b) Explain the uses and marketing / export of dimensional stone. | 07 |
