

GUJARAT TECHNOLOGICAL UNIVERSITY**BE – SEMESTER- VII EXAMINATION-SUMMER 2023****Subject Code: 3172214****Date: 19/06/2023****Subject Name: Dimensional Stone Technology****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.
4. Simple and non-programmable scientific calculators are allowed.

Marks

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|------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Q.1 | (a) Write a note on dimensional stone and its importance. | 03 |
| | (b) Write the note on resources of marble and its applicability. | 04 |
| | (c) Describe the procedure for obtaining mining lease. | 07 |
| Q.2 | (a) Write the resource of limestone in the India. | 03 |
| | (b) Define the terms: (a) Exploration (b) Prospecting | 04 |
| | (c) What is reserve? How to estimate it? Explain any one method of it. | 07 |
| OR | | |
| | (c) Write the geology and geographical distribution of sandstone in India with its merits. | 07 |
| Q.3 | (a) Write a note on : Granite and its characteristics | 03 |
| | (b) Write a note on geographical distribution of granite. | 04 |
| | (c) How to do a granite mining? Explain diamond wire saw technique. | 07 |
| OR | | |
| Q.3 | (a) Write a note on : slate and its characteristics | 03 |
| | (b) Write a note on grading of slates. | 04 |
| | (c) Describe the manual method of marble mining. | 07 |
| Q.4 | (a) Write a note on block handling machineries. | 03 |
| | (b) What are the factors to be considered during the selection of mine machinery? | 04 |
| | (c) Describe the diamond wire saw with neat sketch in detail. | 07 |
| OR | | |
| Q.4 | (a) List out the machinery used in processing plant. | 03 |
| | (b) Explain the terms (a) pneumatic bags (b) water bags | 04 |
| | (c) Describe the chain saw in details with neat sketch. | 07 |
| Q.5 | (a) Write a note on quarry waste and its application. | 03 |
| | (b) Write a note on marketing of stone. | 04 |
| | (c) Narrate environmental problems due to marble slurry. | 07 |
| OR | | |
| Q.5 | (a) Write the environmental impact of mining and processing of dimensional stone. | 03 |
| | (b) Write a note on export of marble. | 04 |
| | (c) Narrate sources of noise pollution during excavation and processing of dimensional stone and mentioned necessary control measures for it. | 07 |
