

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – SUMMER 2024****Subject Code:3172214****Date:01-06-2024****Subject Name:Dimensional Stone Technology****Time:02:30 PM TO 05:00 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) Explain the resources of dimensional stones in India. | 03 |
| | (b) What do you mean by dimensional stones? Explain its uses and application. | 04 |
| | (c) What do you mean by prospecting & Exploration? Discuss any one method | 07 |
| | | |
| Q.2 | (a) Name the factors affecting the quality and exploitability of a dimension stone deposit. | 03 |
| | (b) Write a procedure for obtaining mining lease. | 04 |
| | (c) Write short note on the following with a neat sketch (ANY TWO): | 07 |
| | a) Derrick Crane b) Front Loader c) Hydraulic Jacks | |
| | OR | |
| | (c) Explain the following terms: a) Gang saw b) Chain saw | 07 |
| | | |
| Q.3 | (a) Name the machineries used for processing of dimensional stones. | 03 |
| | (b) Write a note on slab mining. | 04 |
| | (c) Write a brief note on granite and its mining method. | 07 |
| | OR | |
| Q.3 | (a) What are the Physico-mechanical properties of slate? | 03 |
| | (b) Discuss the strategies of dimensional stone mining. | 04 |
| | (c) Write a brief note on marble and its mining method. | 07 |
| | | |
| Q.4 | (a) Name the places or areas of limestone deposit in India. | 03 |
| | (b) What do you mean by block mining? | 04 |
| | (c) How in-situ sawing is done by diamond wire saw? Explain briefly with neat sketch. | 07 |
| | OR | |
| Q.4 | (a) What do you mean by diamond segments? | 03 |
| | (b) Explain the processing of dimensional stone with flow chart. | 04 |
| | (c) What do you understand by line drilling and jet flame cutting technique? | 07 |
| | | |
| Q.5 | (a) Explain the secondary use of quarried land and waste of the industry. | 03 |
| | (b) Discuss the major health risk in dimensional stone mining and processing. | 04 |
| | (c) Describe the geology and geographical distribution of granite in India. | 07 |
| | OR | |
| Q.5 | (a) What are the Global Scenario of Granite Consumption? | 03 |
| | (b) Write the export procedure of dimensional stone. | 04 |
| | (c) Discuss the environmental impact of mining and processing of dimensional stones. | 07 |
