

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**BE - SEMESTER– VIII (New) EXAMINATION – WINTER 2019**

**Subject Code: 2182203**

**Date: 21/11/2019**

**Subject Name: Mining & Processing of Dimensional Stone**

**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.

		MARKS
<b>Q.1</b>	(a) Explain the working of chain saw machine with figure	<b>03</b>
	(b) Explain Geological & physio-mechanical properties of dimensional stone.	<b>04</b>
	(c) Explain various conventional mining methods of sand stone mineral	<b>07</b>
<b>Q.2</b>	(a) Differentiate the bench geometry of dimensional stone mine and open cast metal mine.	<b>03</b>
	(b) Describe environmental impact of mining and processing of dimensional stones.	<b>04</b>
	(c) Explain various types of policing machine.	<b>07</b>
	<b>OR</b>	
	(c) Explain various criteria for selection of dimensional stone deposit.	<b>07</b>
<b>Q.3</b>	(a) Explain the method of determining rock quality designation.	<b>03</b>
	(b) What are the various secondary uses of quarry & industry waste of marble & lime stone?	<b>04</b>
	(c) Explain allotment procedure of lease and other legal aspects for marble & limestone mineral.	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) Write a short note on Marble deposit in Gujarat.	<b>03</b>
	(b) Write short note on : Abrasive properties of dimensional stone	<b>04</b>
	(c) Advantages of using of cranes / hydraulic excavators for marble & granite mining.	<b>07</b>
<b>Q.4</b>	(a) Describe the various classification of marble.	<b>03</b>
	(b) Describe working of derrick crane machine with its sketch.	<b>04</b>
	(c) List out machinery used for dimensional stone mining and processing. Which are the factors to be considered while selecting it?	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) Write various prevailing uses of stones.	<b>03</b>
	(b) Write short note on automatic tiling plant.	<b>04</b>
	(c) Advantages and disadvantages of flame jet cutting method used for Dimensional stone mining.	<b>07</b>
<b>Q.5</b>	(a) What is the importance of Exploration?	<b>03</b>
	(b) Explain blasting method used for dimensional stone mining.	<b>04</b>
	(c) Describe gang saw with diagram.	<b>07</b>
	<b>OR</b>	
<b>Q.5</b>	(a) Define: Dimensional Stone also write their examples.	<b>03</b>
	(b) Describe Wire saw with diagram.	<b>04</b>
	(c) Resources of limestone deposits in India and Gujarat.	<b>07</b>

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