

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III (NEW) EXAMINATION – SUMMER 2019****Subject Code: 2134001****Date: 04/06/2019****Subject Name: Machineries & Equipments****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
Q.1	(a) Enumerate uses/applications of crusher.	03
	(b) Discuss use and types of feeders.	04
	(c) Explain Operating principle, components, construction, working, application, advantages-limitations of ready mix concrete plant with neat sketch.	07
Q.2	(a) What is Asphalt? Enumerate types of Asphalt plant.	03
	(b) Explain screed concept of leveling with neat sketch.	04
	(c) Explain Operating principle, components, construction, working, application, advantages-limitations of vibratory roller compaction equipment with neat sketch.	07
OR		
	(c) Explain Operating principle, components, construction, working, application, advantages-limitations of Tractor with neat sketch.	07
Q.3	(a) Enumerate uses of Motor Grader.	03
	(b) Explain importance of Blade pitch and angle with neat sketch.	04
	(c) Explain Operating principle, components, construction, working, application, advantages-limitations of any one of the Scraper with neat sketch.	07
OR		
Q.3	(a) What is dozer? Write about history of dozer and its operations.	03
	(b) Classify excavators.	04
	(c) Explain Operating principle, components, construction, working, application, advantages-limitations of Excavator with neat sketch.	07
Q.4	(a) Explain Operating principle, components, construction, working, application, advantages-limitations of Road header tunneling equipment with neat sketch.	07
	(b) Explain Operating principle, components, construction, working, application, advantages-limitations of Centrifugal fans – radial, forward and backward curved with neat sketch.	07
OR		
Q.4	(a) Classify compressors.	03
	(b) Enumerate factors affecting selection of Pulverisers.	04
	(c) Explain Operating principle, components, construction, working, application, advantages-limitations of any kind of cooling tower with neat sketch.	07
Q.5	(a) Explain principles of material handling in detail.	03
	(b) Classify material handling systems in general.	04

- (c) Explain Operating principle, components, construction, working, application, advantages-limitations of Fork lift with neat sketch. **07**
- OR**
- Q.5** (a) Explain construction of rope. **03**
- (b) Enumerate measures for safety. **04**
- (c) What is TPM? Explain pillars of TPM in brief. **07**