Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V • EXAMINATION – SUMMER 2013

Subject Code: 150502 Date: 16-05-20 Subject Name: Mechanical Operation		2013	
U	: 10	.30 am - 01.00 pm Total Mark	s: 70
	2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	Explain construction and working of Blake jaw crusher or Smooth-roll crusher.	07
	(b)	Discuss working principle and construction of ball mill.	07
Q.2	(a)	With the help of flow diagram explain open-circuit and closed-circuit grinding operation.	07
	(b)	Discuss screen analysis in detail.	07
	(b)	OR List out types of mixers and discuss any one in detail.	07
Q.3	(a) (b)	What is fluidization? Discuss the conditions for fluidization. Discuss about continuous fluidization. OR	07 07
Q.3	(a) (b)	Explain construction and working of continuous rotary vacuum filter. Explain principles of cake filtration and pressure drop through filter cake.	07 07
Q.4	(a) (b)	Discuss about batch sedimentation. Discuss about filter media and filter aids. OR	07 07
Q.4 Q.4	(a) (b)	Discuss construction and working of hydrocyclone. Explain principle of centrifugal sedimentation.	07 07
Q.5	(a) (b)	Explain different types of agitators and their selection criteria. Explain method for calculation of power consumption for agitator. OR	07 07
Q.5	(a) (b)	Discuss effect of system geometry on power consumption. Write short note on õStatic mixersö.	07 07

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