

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER– IV (New) EXAMINATION – WINTER 2019****Subject Code: 2142603****Date: 16/12/2019****Subject Name: Rubber engineering****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.

	MARKS
Q.1 (a) Draw various configurations of three roll calendar.	03
(b) List out any two operations carried out by calendar.	04
(c) What do you mean by frictioning? Discuss the frictioning operation with respect to calendar.	07
Q.2 (a) What do you mean by Mixing? Write down any two applications of Farrel Continuous Mixer (FCM).	03
(b) Write down the limitations of Transfer Mix.	04
(c) List out the operating variables for internal mixer. Discuss any three in detail.	07
OR	
(c) Compare single geared mixing mill with double geared mixing mill.	07
Q.3 (a) What do you mean by buffing? How is it carried out?	03
(b) Write a short note on kneader.	04
(c) Explain 'Fish Tail Head' of extruder.	07
OR	
Q.3 (a) Write a brief note on extruder as a strainer.	03
(b) Define the following terms: (i) Die(ii)Head (iii)L/D Ratio(iv)Compression Ratio	04
(c) Write a short note on Vacuum Extruder.	07
Q.4 (a) What do you mean by 'pebbling' in terms of moulding? Write their cause and remedy.	03
(b) Short note on 'mould releasing agents'.	04
(c) Explain the classification of mould according to their operations.	07
OR	
Q.4 (a) Define the terms: (i) Cavity (ii) Sprue bush (iii) Runner.	03
(b) Explain the reasons and remedies for air trap.	04
(c) Explain the reasons and remedies for under cure.	07
Q.5 (a) Write down the causes and remedies of sponging.	03
(b) Explain the working of reciprocating type injection unit.	04
(c) Write a short note on Bag-O-Matic press.	07
OR	
Q.5 (a) Consistent part quality is difficult to achieve in Case of transfer moulding- why?	03
(b) Give the advantages of injection moulding process.	04
(c) Write a short note on planetary mixer.	07
