

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI (NEW) EXAMINATION – WINTER 2017****Subject Code: 2162909****Date: 28/11/2017****Subject Name: Knitting Technology****Time: 02:30 PM TO 05:00PM****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) Explain the following terms with respect to weft knitting : (i) Needle loop (ii) Sinker loop	03	
	(b) Describe important properties of plain single jersey fabrics.	04	
	(c) Draw a neat labeled diagram of latch needle and hence state function of different parts.	07	
Q.2	(a) Explain the function of sinker in weft knitting.	03	
	(b) Draw graphical & diagrammatic representation of purl and rib structure.	04	
	(c) Describe how tuck stitch is formed with neat sketch.	07	
OR			
Q.3	(c) Describe anatomy of weft knit structure with neat sketch.	07	
	(a) Describe effect of float on fabric properties.	03	
	(b) Compare important properties of woven and knitted fabrics.	04	
Q.3	(c) With a neat sketch, explain rib structure and its important properties.	07	
	OR		
	(a) Calculate production of weft knitting machine in mts /shift if number of feeders is 30, RPM is 30, course/inch is 20 and efficiency is 85%.	03	
Q.3	(b) Describe basic elements of flat bed knitting briefly.	04	
	(c) Describe laying in & plating used in weft knitting briefly.	07	
Q.4	(a) What is meant by blind lap?	03	
	(b) Calculate the production in m ² /hour of Tricot knitting machine for fabric with particulars: Course count – 19.7 CPC Wale count – 13.8 WPC Fabric weight – 86 g/m ² Machine characteristics: Needle bar width – 168 inches Gauge – 32NPI Running speed – 2000 rpm.	04	
Q.4	(c) Describe the cycle of operation using a Fall plate on Raschel.	07	
	OR		
Q.4	(a) A 2-guide bar fabric is produced on a 32 gauge machine 168 inch wide at a speed of 2000 rpm. Both guide bars are fully threaded with 44 dtex yarn ends 7 run-in is 2.42	03	

m/rack in the front guide bar & 1.15 m/rack in the second. Calculate the production in kg/hour.

- (b) Write in brief about Sinker Pile fabrics. **04**
- (c) Describe the following lapping movements with neat sketches: **07**
- i. The 1 & 1 Lapping
 - ii. The 2 & 1, 3 & 1, 4 & 1 Lapping.
- Q.5** (a) Discuss briefly about the yarns used for the manufacture of nets. **03**
- (b) Write in brief about warping for warp knitting. **04**
- (c) Describe satin structure by the thread diagram & lapping movements of the two guide bars. **07**
- OR**
- Q.5** (a) Write in brief about Co-We-Knit. **03**
- (b) Discuss in brief important yarn properties for warp knitting. **04**
- (c) Enlist the differences between Tricot & Raschel. **07**
