Seat No.: _____ Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE (SPFU)- SEMESTER– 1st/ 2nd • EXAMINATION – 2018

Subject Code: ENG005 **Date: 28-05-2018**

Subject Name: Linear Electrical Networks

Time: 02.30 PM to 05.00 PM **Total Marks: 70**

Instructions:

1. **Attempt any five questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Explain Star delta transformation with example.	**07**
	(b)	Explain Norton's theorem.	**07**
		or	
	(b)	Explain Thevenin's theorem.	
Q.2	**(a)**	Explain Kirchhoff's current and voltage law.	**07**
	(b)	Explain series and parallel connection. Also compare them.	**07**
Q.3	**(a)**	What is resistor? How to calculate the resistor value by color code?	**07**
	(b)	Explain loop, node, path, network and circuit	**07**
		or	
		Explain series RLC circuit in detail.	
Q.4	**(a)**	What is mesh analysis? Explain in detail with suitable example	**07**
	(b)	Explain the time domain behavior of two port passive network.	**07**

Q.5 Write a short note (any two) **14**

(a) Hybrid parameter

(b) Superposition theorem

(c) Maximum power transfer theorem