



R20 Regulation

Subject code:3P5CE

**TKR COLLEGE OF ENGINEERING AND TECHNOLOGY**

(Autonomous, Accredited by NAAC with 'A+' Grade)

**B.Tech V Semester Supplementary Examinations, May 2025**

**INSTRUMENTATION CONTROL SYSTEM**

**(ME)**

Maximum Marks: 70

Date: 26.06.2025

Duration: 3 hours

- Note: 1. This question paper contains two parts A and B.  
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.  
3. Part B consists of 5 Units. Answer any one full question from each unit.  
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

**Part-A**

All the following questions carry equal marks (10X2M=20 Marks)		Marks	CO	BTL
1	Define Piezo electric transducer.	2M	1	L1
2	List any two Measurement of Levels.	2M	1	L1
3	List the two types of Flow Measurement.	2M	2	L1
4	Define Pyrometers.	2M	2	L1
5	What is electrical strain gauge?	2M	3	L1
6	Write about Measurement systems?	2M	3	L1
7	What is Low pressure measurement?	2M	4	L1
8	What is Thermistor?	2M	4	L1
9	What is the purpose of final control element?	2M	5	L1
10	Define Electrical tachometers.	2M	5	L1

**Part-B**

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	Explain with a neat sketch about a Dial indicator.	10M	1	L2
	OR			
12	Explain Bubbler level indicators.	10M	1	L2
13	Explain in detail about measurement of displacement.	10M	2	L2
	OR			
14	What is Laser Doppler Anemometer (LDA) with sketch?	10M	2	L2
15	Explain Torsion meters, Dynamometers.	10M	3	L2
	OR			
16	Write short notes on ionization and Photo electric transducers.	10M	3	L2
17	Write short notes on stress strain measurements.	10M	4	L2
	OR			
18	Write short notes on cryogenic fuel level indicators.	10M	4	L2
19	Explain Sling psychrometer & absorption psychrometer.	10M	5	L2
	OR			
20	Explain the elements of control systems with neat sketch.	10M	5	L2