

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER-VI EXAMINATION – WINTER 2025

Subject Code:3161713

Date:02-12-2025

Subject Name:Instrumentation Project Management

Time:02:30 PM TO 05:00 PM

Total Marks:70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

| | | MARKS |
|-----------|---|-------|
| Q.1 | (a) State importance of Project Management and Enlist 3 EPC based Mega Project of Gujarat | 03 |
| | (b) What are the various project engineering documents? Explain any two. | 04 |
| | (c) What is major difference between Projects and Contracts. Explain in details | 07 |
| Q.2 | (a) Which tool of MS office used in Project Management explain in brief. | 03 |
| | (b) Enlist role/task of IC Engineer as Instrument Project Engineer. | 04 |
| | (c) Enlist advantage of EPC Projects. Compare EPC and BOOT projects in details with examples. | 07 |
| OR | | |
| | (c) Enlist various types of S curve and explain it in details with diagrams. | 07 |
| Q.3 | (a) State importance of SOW. | 03 |
| | (b) What is importance of wiring and tagging in Instruments. ? | 04 |
| | (c) Explain term: Project breakdown structure and planning cycle, project specification, Bar charts related to project management | 07 |
| OR | | |
| Q.3 | (a) Explain about tender process, specification sheet, panel drawing | 03 |
| | (b) How to ensure calibration of volumetric flow measurement at petrol pump.? | 04 |
| | (c) Compare electronic and pneumatic system with various points | 07 |
| Q.4 | (a) State importance of calibration in process industry. | 03 |
| | (b) Describe various types of standard and explain ISO 9000 test and calibration standard. | 04 |
| | (c) Describe various types of control valve with its application | 07 |
| OR | | |
| Q.4 | (a) What are the standard used in pneumatic and electrical data transfer? | 03 |
| | (b) Enlist steps for Pressure gauge calibration. | 04 |
| | (c) Enlist types of flow instruments and describe its selection process | 07 |
| Q.5 | (a) Compare Program Evaluation and Review Techniques Vs Critical path method for project management. | 07 |
| | (b) Enlist types of level instruments and describe its selection process | 07 |
| OR | | |
| Q.5 | (a) Explain function of valve positioner and describe in details valve characteristics | 07 |
| | (b) What is importance of process parameter loop check? Explain loop check of Flow and Temperature transmitter. | 07 |
