



COLLEGE OF ENGINEERING, PUNE

(An Autonomous Institute of Government of Maharashtra.)
SHIVAJI NAGAR, PUNE - 411 005

END Semester Examination

(IE-14002) Project Engineering and Management

Course: B.Tech

Branch: Instrumentation and Control Engineering

Semester: Sem VII

Year: 2014-2015

Max.Marks:60

Date: 24/11/2014

Duration: 3 Hours Time:- 2pm to 5pm

Instructions:

MIS No.

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1. Figures to the right indicate the full marks.
2. Mobile phones and programmable calculators are strictly prohibited.
3. Writing anything on question paper is not allowed.
4. Exchange/Sharing of anything like stationery, calculator is not allowed.
5. Assume suitable data if necessary.
6. Write your MIS Number on Question Paper

		Marks
Q. 1	What are responsibilities of a project manager? Explain importance of time management and man power management. Explain the process of cost estimates preparation with suitable example.	10
Q. 2	A petrochemical company is setting up a new manufacturing unit. The sponsoring body has decided to implement the project as per EPC concept. Explain the work flow/breakdown structure of the project with clear distinction between all steps. What will be different teams and departments those will be involved? Define the protocol for their communication.	10
Q. 3	A boiler is used producing steam required for running a distillation column for binary separation. The steam flow and the reflux ratio of the distillation column need to be controlled. The temperature at the top of the column and composition of the bottom product is to be measured. Indication of both should be in control room as well as in field. Auxiliary indications of status of control valves must there. Draw a complete P& ID of the process using ISA symbols and prepare instrument index sheet.	10

Q.4	For P& ID developed in Q-3, prepare following documents <ol style="list-style-type: none"> 1. Loop wiring diagram 2. Hook up diagram for temperature sensor 3. Control system I/O List 4. Control panel layout and typical wiring 	12
Q.5	Taking suitable example of any project, explain the relevance and importance of monitoring progress of project and risk calculations and management. Briefly explain the total ramp up plan (graph) for the project.	8
Q.6	Write note on <ol style="list-style-type: none"> 1. Critical Path Management and SWOT analysis 2. Project Organization and coordination 	10