

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (NEW) EXAMINATION – WINTER 2018****Subject Code: 2173611****Date: 29/11/2018****Subject Name: Project & Plant Engineering****Time: 10:30 AM TO 01:00 PM****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 significance of plant design.	03
	(b) Write a note on 1) Chilling water, 2) Compress air	04
	(c) Explain various stages of project implementation.	07
Q.2	(a) Define 1) Salvage value 2)Scrap value 3)Cost index	03
	(b) Explain the importance of safety in chemical process industry.	04
	(c) Discuss in detail about preliminary feasibility report	07
	OR	
	(c) What are the different methods used for profitability evaluation? Explain any two in detail.	07
Q.3	(a) Explain cash flow.	03
	(b) Write a short note on pilot plant.	04
	(c) Explain various factors affecting plant location.	07
	OR	
Q.3	(a) Write a note on alternative investment.	03
	(b) What are the different methods used for estimating capital investment? Explain any one in detail.	04
	(c) Explain factors affecting production cost.	07
Q.4	(a) Explain the various methods of waste water treatment.	03
	(b) Write a short note on boiler feed water.	04
	(c) Explain various methods used for estimating depreciation.	07
	OR	
Q.4	(a) Write a short note on steam as a utility.	03
	(b) Explain cost index in detail.	04
	(c) The initial cost of CSTR is ₹ 50.00 lakh. At the end of useful life of 15 years its salvage value is estimated to be. ₹ 1.25 lakh Determine the asset value of the CSTR at the end of 7 years using	07
	I. Straight-line method	
	II. Double declining balance method.	
Q.5	(a) Write a short note on payback period.	03
	(b) Explain various utilities used in chemical plants.	04
	(c) Explain break-even analysis in detail.	07
	OR	
Q.5	(a) Explain selection criteria for process equipment.	03
	(b) Explain standard and special equipment's.	04
	(c) Write a note on CPM and PERT.	07
