

R1910

Scheme/ Answer Key for Valuation

Scheme of evaluation (marks in brackets) and answers of problems/key

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
FIRST SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2018

Course Code: BE101-06

Course Name: INTRODUCTION TO CHEMICAL ENGINEERING

Max. Marks: 100

Duration: 3 Hours

PART A

Answer all questions, each carries 3 marks.

		Marks
1	Three point (1x3=3)	(3)
2	Conversion steps and answer=0.27 kg/m ² s (3)	(3)
3	distillation (1.5), evaporation (1.5)	(3)
4	Mode of heat transfer (1x3=3)	(3)
5	Need for U-tube manometer (3)	(3)
6	Three names of flow measuring instruments (1x3=3)	(3)
7	Six points (0.5x6=3)	(3)
8	Three physical characteristics of waste water(1x3=3)	(3)

PART B

Answer eight questions, (at least one full question from each module)each carries 5 marks.

Module 1

9	Any five classes of chemical industries(1x5=5)	(5)
10	Batch process (1.5) continuous process (1.5), advantages (2)	(5)

Module 1I

11	Conversion (5)	(5)
12	Equations (2) , temperature (3)	(5)

Module 1II

13	Saponification process :explanation (3), application (2)	(5)
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Module 1V

14	Sketch (2), Mixed flow (1.5),plug flow (1.5)	(5)
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Module V

15	Diagram (2), principle (1), working (2)	(5)
16	Diagram (2), DCDA process explanation (3)	(5)

Module VI

17	Any five solid waste management system (5)	(5)
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18 Five novel material(0.5x5=2.5), application (0.5x5=2.5) (5)

PART C

Answer six questions, (at least one full question from each module) each carries 6 marks.

Module I

19 History explanation (6) (6)

Module II

20 Substitution (2), Conversion (4) (6)

Module III

21 a) Unit operations (1), unit process (1), examples (0.5x2=1) (3)

b) Principle of distillation (2), two types of distillation(1) (3)

22 Reaction (2) process explanation (4) (6)

Module IV

23 Modes of heat transfer identification (2), justification (4) (6)

Module V

24 a) Concepts of P& I diagram (4) (4)

b) P& I diagram (1x2=2) (2)

25 Figure (2), principle (2), working (2) (6)

Module VI

26 Any six reasons for Bhopal gas tragedy (1x6=6) (6)
