

GATE 2018 Online Test Series - Chemical Engineering

Test No	Type of test	Test Live from	Test details	Test Syllabus	Difficulty level	No of questions	Max Marks	Test duration
1			Engineering Mathematics-I	Linear algebra,statistics	Easy	10	15	30 min
2			Engineering Mathematics-II	Probability,calculus	Easy	10	15	30 min
3			Engineering Mathematics-III	Numerical methods,vector calculus,complex analysis	Easy	10	15	30 min
4			Engineering Mathematics-IV	Laplace transforms,differential equations,integral calculus	Easy	10	15	30 min
5			Process Calculations-I	Chemical process calculations, Material Balances	Easy	10	15	30 min
6			Process Calculations-II	Combustion Calculation; GCV and NCV, Recycle, Bypass, Purge and Industrial applications.	Easy	10	15	30 min
7			Thermodynamics-I	Solution Thermodynamics, First Law Of Thermodynamics, Second Law Of Thermodynamics	Easy	10	15	30 min
8			Thermodynamics-II	Ac circuits	Easy	10	15	30 min
9			Thermodynamics-III	Thermodynamic Properties of Fluids, First & Second Law of Thermodynamics, Chemical Reaction Equillibria, Thermodynamic processes,	Easy	10	15	30 min
10			Fluid Mechanics-I	Fluid Properties and Static, Kinematics and Dynamics, Flow through pipes	Easy	10	15	30 min
11			Fluid Mechanics-II	Kinematics and Dynamics, Flow through Pipes	Easy	10	15	30 min
12			Fluid Mechanics-III	Fluid Statistics, Elementary Boundary Layer Theory, Macroscopic Friction Factors, Pumps and Compressors,	Easy	10	15	30 min
13			Fluid Mechanics-IV	Flow Through Pipeline Systems, Flow Past Immersed Bodies, Pumps and Compressors, Flow Meters, Fluid Statistics	Easy	10	15	30 min
14			Mechanical Operations-I	Size Reduction , Agitation and Mixing, Thickening and Classification,	Easy	10	15	30 min
15			Mechanical Operations-II	Size Reduction and Classification of Solid Particles, Mechanical Operations, Filtration	Easy	10	15	30 min
16			Heat Transfer-I	Conduction, Heat Exchangers	Easy	10	15	30 min
17			Heat Transfer-II	Convection	Easy	10	15	30 min
18			Heat Transfer-III	Radiation, Heat Exchangers	Easy	10	15	30 min
19			Heat Transfer-IV	Heat Exchangers, Heat Tansfer In Boilling and Condensation, Radiation	Easy	10	15	30 min
20			Mass Transfer-I	Diffusion, Mass Transfer Coefficients	Easy	10	15	30 min

21	Unit Test - Partial Syllabus
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29th March 2017 Onwards

Mass Transfer-II	Mass Transfer Coefficients, Absorption and Adsorption, Humidification	Easy	10	15	30 min
Mass Transfer-III	Distillation	Easy	10	15	30 min
Mass Transfer-IV	Drying, Absorption and Adsorption, Diffusion	Easy	10	15	30 min
Chemical Reaction Engineering-I	Interpretation of Batch reactor Data, Non Ideal Flow Reactors, Single Reactions In Ideal Reactors, Ideal Reactors, Non Isothermal Reactors	Easy	10	15	30 min
Chemical Reaction Engineering-II	Interpretation of Batch reactor Data, Kinetics of Homogenous Reactions, Chemical Engineering Thermodynamics, Non Ideal Flow Reactors, Single Reactions In Ideal Reactors,	Easy	10	15	30 min
Chemical Reaction Engineering-III	Kinetics of Heterogenous Reactions, Theories of Reaction Rates, Interpretation of Batch reactor Data, Non Ideal Flow Reactors, Ideal Reactors,	Easy	10	15	30 min
Chemical Reaction Engineering-IV	Interpretation of Batch reactor Data, Multiple Reactions In Ideal Reactors, Non Isothermal Reactors, Theories of Reaction Rates, Ideal Reactors,	Easy	10	15	30 min
Instrumentation-I	Introduction To Instrumentation, Dynamics of Sensors & Transducers, Pressure Measurement, Temperature Measurement,	Easy	10	15	30 min
Instrumentation-II	Introduction To Instrumentation Temperature Measurement,, Pressure Measurement,	Easy	10	15	30 min
Process Control-I	Dynamic Behavior of A Chemical Processes, Frequency Analysis and Design, Process Modeling and Linearization, Laplace Transform, Advance Control Strategies,	Easy	10	15	30 min
Process Control-II	Frequency Analysis and Design, Dynamic Behavior of A Chemical Processes,	Easy	10	15	30 min
Plant Design Economics-I	Principles of Process Economics & Cost Estimation, Sizing of Chemical Engineering Equipments,	Easy	10	15	30 min
Plant Design Economics-II	Sizing of Chemical Engineering Equipments, Optimization In Process Design, Principles of Process Economics & Cost Estimation	Easy	10	15	30 min
Plant Design Economics-III	Principles of Process Economics & Cost Estimation	Easy	10	15	30 min

35		Chemical Technology-I	Polymers, Natural Products Industries, Chemical Process Industries, Petrochemicals, Inorganic Chemicals,	Easy	10	15	30 min
36		Chemical Technology-II	Polymers, Petroleum Refining, Inorganic Chemicals, Natural Products Industries, Natural Products Industries,	Easy	10	15	30 min
37		Verbal Ability-I	Antonyms, synonyms, verbal analogies, word group, spotting errors and vocabulary building	Easy	10	15	30 min
38		Verbal Ability-II	Sentence completion, sentence improvement, critical reasoning, statements and conclusions,	Easy	10	15	30 min
39		Numerical Ability-I	Profit or loss, averages, number series,time and work, time, speed and distance, ratios and proportions and functions	Easy	10	15	30 min
40		Numerical Ability-II	Data interpretation, data sufficiency, clocks and calendars, directions and blood relations	Easy	10	15	30 min
1			Engineering Mathematics-I	LINEAR ALGEBRA,STATISTICS	Moderate	20	30
2	Engineering Mathematics-II		PROBABILITY,CALCULUS	Moderate	20	30	60 min
3	Engineering Mathematics-III		NUMERICAL METHODS,VECTOR CALCULUS,INTEGRAL CALCULUS	Moderate	20	30	60 min
4	Engineering Mathematics-IV		LAPLACE TRANSFORMS,DIFFERENTIAL EQUATIONS,INTEGRAL CALCULUS	Moderate	20	30	60 min
5	Process Calculations-I		Chemical process calculations, Material Balances	Moderate	20	30	60 min
6	Process Calculations-II		Combustion Calculation; GCV and NCV, Recycle, Bypass, Purge and Industrial applications.	Moderate	20	30	60 min
7	Thermodynamics-I		Solution Thermodynamics, First Law Of Thermodynamics, Second Law Of Thermodynamics	Moderate	20	30	60 min
8	Thermodynamics-II		Second Law of Thermodynamics, Heat & Refrigeration Cyces, Pvt Behaviour and Heat Effects, First Law of Thermodynamics	Moderate	20	30	60 min
9	Thermodynamics-III		Thermodynamic Properties of Fluids, First & Second Law of Thermodynamics, Chemical Reaction Equillibria, Thermodynamic processes,	Moderate	20	30	60 min
10	Fluid Mechanics-I		Fluid Properties and Static, Kinematics and Dynamics, Flow through pipes	Moderate	20	30	60 min
11	Fluid Mechanics-II		Kinematics and Dynamics, Flow through Pipes	Moderate	20	30	60 min

12	Section Test - Partial Syllabus
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7th June 2017 Onwards

Fluid Mechanics-III	Fluid Statistics, Elementary Boundary Layer Theory, Macroscopic Friction Factors, Pumps and Compressors,	Moderate	20	30	60 min
Fluid Mechanics-IV	Flow Through Pipeline Systems, Flow Past Immersed Bodies, Pumps and Compressors, Flow Meters, Fluid Statistics	Moderate	20	30	60 min
Mechanical Operations-I	Size Reduction , Agitation and Mixing, Thickening and Classification,	Moderate	20	30	60 min
Mechanical Operations-II	Size Reduction and Classification of Solid Particles, Mechanical Operations, Filtration	Moderate	20	30	60 min
Heat Transfer-I	Conduction, Heat Exchangers	Moderate	20	30	60 min
Heat Transfer-II	Convection	Moderate	20	30	60 min
Heat Transfer-III	Radiation, Heat Exchangers	Moderate	20	30	60 min
Heat Transfer-IV	Heat Exchangers, Heat Transfer In Boiling and Condensation, Radiation	Moderate	20	30	60 min
Mass Transfer-I	Diffusion, Mass Transfer Coefficients	Moderate	20	30	60 min
Mass Transfer-II	Mass Transfer Coefficients, Absorption and Adsorption, Humidification	Moderate	20	30	60 min
Mass Transfer-III	Distillation	Moderate	20	30	60 min
Mass Transfer-IV	Drying, Absorption and Adsorption, Diffusion	Moderate	20	30	60 min
Chemical Reaction Engineering-I	Interpretation of Batch reactor Data, Non Ideal Flow Reactors, Single Reactions In Ideal Reactors, Ideal Reactors, Non Isothermal Reactors	Moderate	20	30	60 min
Chemical Reaction Engineering-II	Interpretation of Batch reactor Data, Kinetics of Homogenous Reactions, Chemical Engineering Thermodynamics, Non Ideal Flow Reactors, Single Reactions In Ideal Reactors,	Moderate	20	30	60 min
Chemical Reaction Engineering-III	Kinetics of Heterogenous Reactions, Theories of Reaction Rates, Interpretation of Batch reactor Data, Non Ideal Flow Reactors, Ideal Reactors,	Moderate	20	30	60 min
Chemical Reaction Engineering-IV	Interpretation of Batch reactor Data, Multiple Reactions In Ideal Reactors, Non Isothermal Reactors, Theories of Reaction Rates, Ideal Reactors,	Moderate	20	30	60 min
Instrumentation-I	State space analysis, controllability, observability	Moderate	20	30	60 min
Instrumentation-II	Introduction To Instrumentation Temperature Measurement,, Pressure Measurement,	Moderate	20	30	60 min

30			Process Control-I	Dynamic Behavior of A Chemical Processes, Frequency Analysis and Design, Process Modeling and Linearization, Laplace Trnaforms, Advance Control Strategies,	Moderate	20	30	60 min
31			Process Control-II	Frequency Analysis and Design, Dynamic Behavior of A Chemical Processes,	Moderate	20	30	60 min
32			Plant Design Economics-I	Principles of Process Economics & Cost Estimation, Sizing of Chemical Engineering Equipments,	Moderate	20	30	60 min
33			Plant Design Economics-II	Sizing of Chemical Engineering Equipments, Optimization In Process Design, Principles of Process Economics & Cost Estimation	Moderate	20	30	60 min
34			Plant Design Economics-III	Principles of Process Economics & Cost Estimation	Moderate	20	30	60 min
35			Chemical Technology-I	Polymers, Natural Products Industries, Chemical Process Industries, Petrochemicals, Inorganic Chemicals,	Moderate	20	30	60 min
36			Chemical Technology-II	Polymers, Petroleum Refining, Inorganic Chemicals, Natural Products Industries, Natural Products Industries,	Moderate	20	30	60 min
37			Verbal Ability-I	Antonyms, synonyms, verbal analogies, word group, spotting errors and vocabulary building	Moderate	20	30	60 min
38			Verbal Ability-II	Sentence completion, sentence improvement, critical reasoning, statements and conclusions,	Moderate	20	30	60 min
39			Numerical Ability-I	Profitr or loss, averages, number series,time and work, time, speed and distance, ratios and proportions and functions	Moderate	20	30	60 min
40			Numerical Ability-II	Data interpretation, data sufficiency, clocks and calendars, directions and blood relations	Moderate	20	30	60 min
1		ests	19th July'17 Onwards	Extra Edge Test-01	Full syllabus	Easy	65	100
2	2nd August'17 Onwards		Extra Edge Test-02	Full syllabus	Easy	65	100	180 min
3	16th August'17 Onwards		Extra Edge Test-03	Full syllabus	Easy	65	100	180 min
4	30th August'17 - 13th Sept'17		Self Administered Test-1	Full syllabus	Easy & Moderate	65	100	180 min
5	13th Sept'17 Onwards		Extra Edge Test-04	Full syllabus	Easy & Moderate	65	100	180 min
6	27th Sept'17 - 11th Oct'17		Self Administered Test-2	Full syllabus	Easy & Moderate	65	100	180 min

7	Full length Mock Test	4th Oct'17 Onwards	Extra Edge Test-05	Full syllabus	Easy & Moderate	65	100	180 min
8		18th Oct'17 - 31st Oct'17	Self Administered Test-3	Full syllabus	Moderate	65	100	180 min
9		1st Nov'17 Onwards	Extra Edge Test-06	Full syllabus	Moderate	65	100	180 min
10		15th Nov'17 - 28th Nov'17	Self Administered Test-4	Full syllabus	Moderate	65	100	180 min
11		29th Nov'17 - 12th Dec'17	Self Administered Test-5	Full syllabus	Moderate	65	100	180 min
12		13th Dec'17 - 26th Dec'17	Self Administered Test-6	Full syllabus	Moderate & Hard	65	100	180 min
13		23rd Dec'17 - 29th Dec'17	Monitored Test-01	Full syllabus	Moderate & Hard	65	100	180 min
14		30th Dec'17 - 5th Jan'17	Monitored Test-02	Full syllabus	Hard	65	100	180 min
15		6th Jan'17 - 12th Jan'18	Monitored Test-03	Full syllabus	Hard	65	100	180 min
16		23rd Jan'18 - 29th Jan'18	Monitored Test-04	Full syllabus	GATE level	65	100	180 min

