

**University of Mumbai**  
**Examination 2020 under cluster \_\_\_ (Lead College Short name)**

Program: Chemical Engineering

Curriculum Scheme: Rev2016

Examination: Second Year Semester III

Course Code: CHC306 and Course Name: Chemical Technology

Time: 1 hour

Max. Marks: 50

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For the students:- All the Questions are compulsory and carry equal marks .

Q1.	Unit Operations are
Option A:	Physical operations
Option B:	Chemical reactions
Option C:	Both physical and chemical operations
Option D:	Electrical operation
Q2.	Which is not part of chemical industries?
Option A:	Basic industries
Option B:	Speciality chemicals
Option C:	Knowledge chemicals
Option D:	Heavy metals
Q3.	What are surfactants?
Option A:	They reduce surface tension and are surface active
Option B:	They increase surface tension
Option C:	They are essential to carry out chemical reactions
Option D:	They are found naturally in mineral deposits
Q4.	Potassium salts of fatty acids are called
Option A:	Soaps
Option B:	Detergents
Option C:	Alkalis
Option D:	Solutes
Q5.	The most profitable product of sulfuric acid plant is
Option A:	Sulfuric acid
Option B:	Water
Option C:	Oleum
Option D:	Steam
Q6.	Oleum is in demand as
Option A:	Sulfating agent
Option B:	Nitrating agent
Option C:	Sulfonating agent
Option D:	Granulating agent
Q7.	Which of the following is NOT application of urea?
Option A:	Urea is used as solid and liquid fertilizer
Option B:	Used synthesis of urea formaldehyde resins, melamine formaldehyde resins
Option C:	Used as animal feed

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Option D:	Used as explosive
Q8.	Biuret formation can be avoided by
Option A:	Vacuum drying and cooling must be done just above the melting point of urea and with a minimum residence time
Option B:	Trying for complete conversion by using catalysts
Option C:	Removal of biuret after autoclave
Option D:	Removal of biuret from final product by capitalization
Q9.	Which is NOT raw material used for manufacture of nitric acid from oxidation of ammonia?
Option A:	Ammonia
Option B:	Air
Option C:	Magnesium nitrate
Option D:	Ammonium hydroxide
Q10.	In oxidation and absorption tower(used in manufacture of nitric acid), which liquid is used as solvent?
Option A:	Ethanol
Option B:	Butanol
Option C:	Propanol
Option D:	Water
Q11.	Raw materials for 'Solvay Process' are
Option A:	salt, limestone, ammonia and coke
Option B:	ammonia, salt and limestone.
Option C:	ammonia, limestone and coke.
Option D:	mixture of glycerides of fatty acids
Q12.	Solvent used for extraction of oil is
Option A:	Hexane
Option B:	Methyl ethyl ketone
Option C:	Furfural
Option D:	Ethanol
Q13.	Hydrogenation of oil
Option A:	Lowers its melting point
Option B:	Remove double bonds
Option C:	Reduces its resistance to oxidation
Option D:	Introduces alkyl groups in structure of oils
Q14.	SO <sub>2</sub> is bubbled through hot sugar cane juice to
Option A:	act as an acidifying agent
Option B:	increase its concentration
Option C:	increase the amount of molasses
Option D:	increase the crystal size
Q15.	Denatured ethanol is

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Option A:	Ethanol made by synthetic process
Option B:	Methanol
Option C:	Propanol
Option D:	It is unpalatable form of ethanol
Q16.	Fermentation is NOT defined as
Option A:	Fermentation is a metabolic process that produces chemical changes in organic substrates through the action of enzymes.
Option B:	The chemical breakdown of a substrate by bacteria or yeasts producing important products .
Option C:	Fermentation is anaerobic process for breaking down glucose by using yeast
Option D:	Chemical process used to produce sulfuric acid
Q17.	Phenol is mainly used
Option A:	to produce benzene
Option B:	to produce phenol formaldehyde
Option C:	to produce polyester resin
Option D:	as a plasticiser for unsaturated polyester
Q18.	Ziegler process
Option A:	produces high density polyethylene
Option B:	produces low density polyethylene
Option C:	uses no catalyst
Option D:	employs very high pressure
Q19.	Thermoplastic materials
Option A:	soften on application of heat
Option B:	are cross-linked molecules
Option C:	are solvent soluble
Option D:	are in form of liquid emulsion at room temperature
Q20.	Cumene (isopropyl benzene) is made by
Option A:	oxidation of naphthalene
Option B:	propylene alkylation of benzene
Option C:	polymerisation of a mixture of benzene & propylene.
Option D:	oxidation of toluene
Q21.	Pick out wrong statement
Option A:	LDPE is branched and amorphous.
Option B:	HDPE is linear and more crystalline.
Option C:	HDPE has higher melting LDPE
Option D:	HDPE has lower molecular weight than LDPE
Q22.	Which is not type of cracking
Option A:	Thermal cracking
Option B:	Steam cracking
Option C:	Fluid catalytic cracking
Option D:	High pressure cracking

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Q23.	Which is not purpose of catalytic reforming process?
Option A:	Convert petroleum refinery naphtha, typically having low octane ratings, into high-octane liquid products.
Option B:	increasing portion of aromatics and branched chain hydrocarbons
Option C:	increasing portion of branched chain hydrocarbons
Option D:	production of linear alkanes
Q24.	Phosphate rock is a raw material for the manufacture of
Option A:	phosphoric acid and superphosphates
Option B:	sulfuric acid
Option C:	Nitric acid
Option D:	Acetic acid
Q25.	Which is most useful isomer of xylene
Option A:	o -xylene
Option B:	p-xylene
Option C:	m-xylene
Option D:	a-xylene