	Sanjay Ghodawat University, Kolhapur Established as State Private University under Govt. of Maharashtra. Act No XL, 2017	Winter 2023 EXM/P/09/00

Year and Program: S.Y B Pharmacy	**School of Pharmaceutical Sciences**	**Department : Pharmacy**
Course Code : BP304T	**Course Title :Pharmaceutical engineering**	**Semester – III**
Date: 28/12/2023 **Day :** Thursday **Time:** 10.30am to 1.30pm	**Examination: End Semester Exam**	**Max Marks: 75**

Instructions: 1)All questions arecompulsory.

2) Drawaneatlabeleddiagramifnecessary.

			Marks	Bloom's Level	CO
Q.1		**Objective Type Questions (20×1)**	**20**		
	A)	Which one of the following instrument is suitable for measuring minute pressure difference in fluid a) diaphragm pressure gauge b) Inclined manometer c) simple manometer d) U tube manometer	1	1	2
	B)	Reynolds number depends on one of the following factor…. a) Roughness of pipe b) surface area c) viscosity of liquid d) volume of liquid	1	1	1
	C)	Which one of the following experiment u of flow of fluid… a) Bernoulis b) orifice c) Renoldsd) stokes	1	1	2
	D)	Which mill is preferred for wet grinding …. a) collide mill b) Hammer mill c) roller mill d) rotary cutter mill	1	1	2
	E)	Which one of the following is not covered under definition of fluid … a) Gases b) liquids c) solids d) vapour	1	1	2
	F)	Size reduction of the matarials has one of the following diasadvantage … a) high degradation b) high dissolution c) high flow	1	1	2

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		d) high surface area			
	G)	Which mill includes a screen as an integral part of size reduction …. a) ball mill b) collide mill c) edge runner mill d) hammer mill	1	1	1
	H)	Size separation is not based on one of the following properties ….. a) particle density b) particle shape c) particle size d) particle texture	1	1	2
	I)	During size separation the movement of particles can be enhanced by one of the following modes …. a) Agitation b) Attrition c) gravitation d) mixing	1	1	2
	J)	Brushing method is used for … a) coarse material b) dry material c) light material d) sticky matarial	1	1	2
	K)	Process of heating liquid mixture to form vapours and then cooling the vapours to get pure componanat is called ….. a) crystallization b) distillation c) chromatography d) sublimation	1	1	2
	L)	Which of the following is not separated through distillation process … a) acetone + water b) aniline + chloroform c) impurities in sea water d) milk and water	1	1	2
	M)	Porcelein pieces are put in distillation flask to avoid …. a) overheating b)uniform boiling c) bumping of solution d) none	1	1	2
	N)	Distillate is a liquid that …. a)condenses after distillation b) does not sink due to fine particles c) substance that will not dissolve d) mixes together	1	1	1
	0)	……Method of distillation used for purification and separation of chemicals of low vapour pressure . a) steam b) simple c) destructive d) molecular	1	1	1
	P)	Process in which entire liquid mixture is suddenly vapourised …. a) simple b) fractional c) steam d) flash	1	1	2

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	Q)	In microwave oven heat flows in one of the following mechanism.... a) conduction b) convection c) diffusion d) radiation	1	1	1
	R)	seperation of liquid by distillation is based on one of the following principle ..... a) Boiling point b) miscibility c) vapour pressure d) viscosity	1	1	2
	S)	Distillation does not involve one of the following process .... a)evaporation b)extraction c) purification d) separation	1	1	2
	T)	Drying is essential after one of the following unit operation ..... a) crystallizationb) evaporation c) mixing d)size reduction	1	1	1
Q.2		**Long Answers (Answer 2 out of 3)**	**20**		
	A)	Definemixing ,what is the importance of mixing in pharmacy , name the mixers used for semisolids and explain the construction and working of anyone .	10	2	1
	B)	Explain theory of steam distillation and write its applications .	10	2	1
	C)	What is evaporation , give difference between drying and distillation ,explain various factors affecting on evaporation rate	10	2	1
Q3		**Short Answers (Answer 7 out of 9)**	**35**		
	A)	Write principle , construction and working of climbing film evaporator .	5	2	1
	B)	Write principle ,construction and working of silverson emulsifier	5	2	2
	C)	Write theory and applications of molecular distillation .	5	2	1
	D)	Write principle ,construction and working of fluid energy mill.	5	2	1
	E)	Write in detail heat transfer mechanism with example .	5	2	1
	F)	Explain theories of size reduction .	5	2	1
	G)	Explain working of rotameter and give its merits and demerits .	5	2	2
	H)	Define and classify corrosion and prevention methods .	5	2	1
	I)	Write principle,construction and working of cyclone separator .	5	2	2

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