

Roll No _____

END-TERM EXAMINATION
Odd Semester 2024-25

Course Code BP304T Course Name- Pharmaceutical Engineering

Programme Name: B.Pharma Sem- III



K.R. MANGALAM UNIVERSITY
THE COMPLETE WORLD OF EDUCATION

Time: 3 Hours

Maximum Marks: 75

Instructions: The question paper consists of 32 questions divided into three-part A, B and C. Attempt all questions from section-A comprises 20 MCQs, Any two questions out of three from section-B and Any seven questions out of Nine from section-C

Section-A (20 X 1 = 20 Marks)

1	Which one of the following is known as fluid? 1) Always expands until it fills in the container 2) Cannot be subjected to shear forces 3) Cannot remain at rest under the action of any shear forces 4) Practically compressible	CO-1	L-1
2	Size classification is also known in one of the following terms. 1) Size analysis 2) Size distribution 3) Size reduction 4) Size separation	CO-1	L-2
3	During size separation, the movement of particles can be enhanced by one of the following modes. 1) Agitation 2) Attrition 3) Gravitation 4) Mixing	CO-1	L-2
4	Size reduction of materials has one of the following disadvantages 1) High degradation 2) High dissolution 3) High flow of materials 4) High surface area	CO-1	L-1
5	Which are the modes observed in a ball mill for size reduction? 1) Attrition and cutting 2) Compression and impact 3) Cutting and compression 4) Impact and attrition	CO-1	L-1
6	Which mill includes a screen as an integral part of the size reduction? 1) Ball mill 2) Colloid mill 3) Edge runner mill 4) Hammer mill	CO-1	L-3

7	Which one of these instruments is suitable for measuring minute pressure differences in a fluid? 1) Diaphragm pressure gauge 2) Inclined manometer 3) Simple manometer 4) U-tube differential manometer	CO-1	L-1
8	Which one of the properties is responsible for the use of mercury in manometers? 1) High surface tension 2) High vapor pressure 3) Low specific gravity 4) Low vapor pressure	CO-1	L-1
9	How many liquids are used in differential manometer? 1) Four 2) One 3) Two 4) Three	CO-1	L-2
10	Which one of the following experiments are used for the study of the flow of fluids? 1) Bernoulli's 2) Orifice meter 3) Reynolds 4) Stokes	CO-1	L-3
11	The mode of motion in size separation methods 1) Agitation 2) Brushing 3) Centrifugal Force 4) All the above	CO-1	L-4
12	The of sedimentation depends on 1) The diameter of the Particle 2) Density of the liquid and viscosity of the liquid 3) The acceleration due to gravity 4) All the above	CO-1	L-2
13	Pilot tube is used for measurement of 1) Pressure 2) Velocity at a point 3) Mass 4) Density	CO-1	L-2
14	What is the disadvantage of orifice meter 1) Power loss due to sudden contraction 2) Costly 3) Require more man power 4) Chances of corrosion	CO-1	L-3

15	Metal use for construction of sieve is 1) Stainless steel 2) Nylon 3) Terylene 3) Magnesium	CO-1	L-2
16	Evaporation takes place at 1) All temperature 2) Freezing Point 3) Melting Point 4) Boiling Point	CO-1	L-1
17	Which of the following distillation process is also called evaporative distillation. 1) Molecular Distillation 2) Flash Distillation 3) Steam Distillation 4) Simple Distillation	CO-1	L-1
18	Which of the following dryer is used for coating of granules 1) Tray dryer 2) Drum dryer 3) Fluidized Bed dryer 4) Spray dryer	CO-1	L-2
19	Higher the value if mixing index, greater will ____ 1) Homogeneity 2) Solubility 3) Viscosity 4) Density	CO-1	L-1
20	Borosilicate glass is made 1) Type I 2) Type II 3) Type III 4) Type IV	CO-1	L-1

Section B (2 X 10 = 20 Marks)

1	Explain the principles, construction, working, uses, merits, and demerits of Hammer mill and ball mill.	CO-2	L-1
2	Factors affecting during materials selected for Pharmaceutical plant construction	CO-2	L-4
3	Basic Principles and methodology of simple distillation, flash distillation,	CO-2	L-3

Section B (7 X 5 = 35 Marks)

1	Enlist the factors affecting size reduction.	CO-1	L-2
2	What is Reynolds number and its significance.	CO-3	L-3
3	Write the uses, merits and demerits of Sieve shake	CO-3	L-3

4	Write applications and factors influencing evaporation.	CO-2	L- 2
5	What are the merits and demerits of Steam jacketed kettle, horizontal tube evaporator	CO-2	L-2
6	Enlist the types of Manometers.	CO-4	L- 3
7	Explain Bernoulli's Theorem and its significance,	CO-2	L-2
8	Differentiate between Heat interchangers & heat exchangers.	CO-3	L-3
9	Explain differences between evaporation and other heat process	CO-2	L-1