# IMPROVEMENT EXAM; B.Pharm; Sem-3

SUBJECT-PHARMACEUTICAL ENGINEERING

SUBJECT CODE-BP304T

DATE OF EXAM:-24-09-2020 (Thursday) A.Y-2020-2021 Class-B.Pharm; Sem-3

#### **\*INSTRUCTIONS:-**

- 1. All questions are compulsary.
- 2. Each question is having one mark.

3. Submit your answer by choosing only one correct option.

- 4. Max Marks 35
- \* Required

1. Email address \*

2. ENROLLMENT NUMBER:- \*

3.....NAME OF STUDENTS:- \*

4. 1. \_\_\_\_\_ is batch type equipment used for mixing. \*

Mark only one oval.

A. Double Cone Blender

- B. Barrel Type Mixer
- C. Zigzag Type Mixer
- D. All of the Above

2. \_\_\_\_\_ is having mechanism of tumbling action shearing with blade and convection. \*

Mark only one oval.

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5.

A. Ribbon Blander

B. V cone blender with a mixing blade

C. Sigma Blender

D. Planetary Paddle

6. 3. \_\_\_\_\_ is having mechanism of air supported blending, expansion with gases, diffusive and pneumatic and also known as Air Mixers. \*

Mark only one oval.

- 🔵 A. Ribbon Blender
- 🔵 B. Sigma Blender
- C. Fluidized Mixer
- D. Planetary Paddle
- 7. 4. \_\_\_\_\_ are placed to control the direction and velocity of the flow to the impeller. \*

Mark only one oval.

A. Paddle

B. Propeller

- C. Turbine
- D. Draft Tubes

5. \_\_\_\_\_ produces intense shearing force and turbulence by the use of high speed rotors. \*

Mark only one oval.

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8.

A. Silverson - Mixer Emulsifier.

B. Propeller

C. Paddle

D. Turbines.

9. 6. \_\_\_\_\_ is an example of Shear Mixers. \*

Mark only one oval.

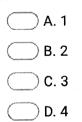
A. Sigma Mixer

B. Triple Roller Mill

C. Planetary Mixer

D. Silverson Emulsifiers

10. 7. How many rollers are there in triple roller mill? \*



11. 8. \_\_\_\_\_ is having batch size of 250 kg or less in pharmaceutical drying for drying of material. \*

Mark only one oval.

A. Drum Dryer

B. Fluidized Bed Dryer

C. Vacuum Dryer

D. Tray Dryer

12. 9. Atomization of liquid takes place in \_\_\_\_\_ during drying process. \*

Mark only one oval.

🔵 A. Spray Dryer

B. Tray Dryer

🔵 C. Vacuum Dryer -

D. Drum Dryer

13. 10. The synonym of "Freeze Drying" process is \_\_\_\_\_\*

Mark only one oval.

A. Distillation

B. Lyophilization

C. Evaporation

🔵 D. Heat Transfer

14. 11. are synonyms of drum dryer. \*

Mark only one oval.

A. Roller Dryer

🔵 B. Film Drum Dryer

C. Both A and B

D. None of the above

15.

12. \_\_\_\_\_\_ is the minimum water held by the material that exerts an equilibrium vapour pressure less than the pure water at the same temperature. \*

Mark only one oval.

- A. Equilibrium Moisture Content
- B. Critical Moisture Content
- 🔵 Ç. Unbound Water
- D. Bound Water
- 16. 13. \_\_\_\_\_ is the amount of water that is easy to evaporate from the solid surface. \*

Mark only one oval.

- A. Free Moisture Content
- B. Equilibrium Moisture Content
- C. Critical Moisture Content
- D. All of the Above
- 17. 14. How many stages are involved for the drying of material by using spray dryer? \*

- ( A. 4
- **B.3**
- **C**. 2
- ( D. 1

18. 15. How many stages are involved for the drying of material by using freeze dryer? \*

Mark only one oval.

- A. 4B. 3
- **C**. 5
- \_\_\_\_ D. 1

19. 16. \_\_\_\_\_\_ is suitable for non-viscous solutions that do not deposit scales or crystals on evaporation. \*

Mark only one oval.

- A. Vertical Tube Evaporator
- B. Multiple Effect Evaporator
- C. Climbing Film Evaporator
- D. Horizontal Tube Evaporator
- 20. 17. \_\_\_\_\_ is suitable for evaporation of foam forming liquids, as foam can be broken by and entrainment separator. \*

- A. Climbing Film Evaporator
- B. Multiple Effect Evaporator
- C. Horizontal Tube Evaporator
- D. Vertical Tube Evaporator

21. 18. Salting, Scaling and Fouling are not possible in \_\_\_\_\_ evaporator. \*

Mark only one oval.

- A. Climbing Film Evaporator
- B. Forced Circulation Evaporator
- C. Multiple Effect Evaporator
- D. Vertical Tube Evaporator
- 22. 19. In multiple effect evaporator, how many maximum evaporators are attached parallelly? \*

Mark only one oval.

- A. 3
- 🔵 B. 2
- C. 5
- D. 1
- 23. 20. \_\_\_\_\_ is used to concentrate insulin, liver extract and vitamins? \*

- A. Falling Film Evaporator
- B. Vertical Tube Evaporator
- C. Horizontal Tube Evaporator
- D. Climbing Film Evaporator

24. 21. In which type of evaporator, the formation of vapour film is assisted by gravity? \*

Mark only one oval.

- A. Falling Film Evaporator
- B. Climbing Film Evaporator
- C. Horizontal Film Evaporator
- D. Multiple Effect Evaporator
- 25. 22. Identify suitable evaporator also helps in growing of coarse crystals. \*

#### Mark only one oval.

- A. Falling Film Evaporator
- B. Climbing Film Evaporator
- C. Vertical Tube Evaporator
- D. Horizontal Tube Evaporator
- 26. 23. When two liquids are mixed together, they are mixed in all proportions, such a mixture is called as \_\_\_\_\_ \*

- A. Azeotropic Mixture
- B. Ideal Mixture
- C. Binary Mixture
- D. All of the Above

27. 24. \_\_\_\_\_ is defined as the one in which there is no change in properties of components other than dilution, when they mixed to form a solution. \*

Mark only one oval.

A. Azeotropic Mixture

B. Binary Solution

C. Real Solutions

D. Ideal Solutions

28. 25. The synonym of "Ideal Solution" is \_\_\_\_\_\*

Mark only one oval.

A. Perfect Solutions

🔵 B. Binary Mixtures

C. Real Solutions

D. All of the above

29. 26. The solutions which are showing degree of deviation from Roult's low known as \_\_\_\_\_\*

Mark only one oval.

A. Perfect Solutions

B. Real Solutions

C. Ideal Solutions

D. Azeotropic Solutions

30. 27. The synonyms of "Molecular Distillation" is \*

Mark only one oval.

- A. Evaporation Distillation
- B. Short Path Distillation
- C. Both A and B
- D. None of the Above

31. 28. The synonym of "Fractional Distillation" is \_\_\_\_\_\*

Mark only one oval.

A. Simple Distillation

- B. Short Path Distillation
- C. Flash Distillation
- D. Rectification
- · 32. 29. The synonym of "Simple Distillation" is \_\_\_\_\_\*

## Mark only one oval.

- A. Differential Distillation
- B. Equilibrium Distillation
- C. Rectification
- D. Short Path Distillation
- 33. 30. The synonym of "Flash Distillation" is \_\_\_\_\_\*

### Mark only one oval.

A. Simple Distillation

B. Equilibrium Distillation

C. Rectification

D. Short Path Distillation

34. 31. The synonym of "Vacuum Distillation" is \_\_\_\_\_\*

Mark only one oval.

A. Simple Distillation

- B. Equilibrium Distillation
- C. Distillation under the reduced prssure
- D. Short Path Distillation

35. 32. In forced convection, the rate of heat transfer is increased by metal with: \*

Mark only one oval.

A. High Thermal Conductivity

B. Metal with high thermal conductivity and mixing of fluid

C. High thermal conductivity, mixing of fluid, high viscous fluid and more area of heating surface

D. High thermal conductivity, mixing of fluid flow and low viscous fluid.

36. 33. Which one of the following bodies radiates maximum amount of energy at a given temperature? \*

Mark only one oval.

A. Black Body

B. Grey Body

C. Light Grey Body

D. Polished Black Body

37. 34. A black body satisfies one of the following conditions. \*

Mark only one oval.

- A. Absorbs less energy than it receives.
- B. Radiates all the energy it receives
- C. Absorbs energy, it receives
- D. Radiates less energy than it receives

# 38. 35. Which of the following has highest thermal conductivity? \*

Mark only one oval.

A. Steel B. Glass C. Copper D. Rubber

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