Q.27 What are the applications of screening?

Q.28 Which factors affect the effectiveness of mixing?

Q.29 Write a note on sedimentation?

Q.30 Write a note on filter aid filtration?

Q.31 Define grinding? Draw a diagram of hammer mill showing different parts.

Q.32 Write a short note on effect of size reduction on sensory characteristics and nutritive value of food?

Q.33 What are the different types of screen?

Q.34 Write a note on magnetic cleaning?

Q.35 Write a brief note on crystalization?

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 Name different types of mixing equipments and Explain at least two with diagram.

Q.37 Define distillation? Explain any two types of distillation process?

Q.38 Draw a neat and clean diagram of sedimentation tank and discuss different parts?

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3rd Sem / Branch : Food Technology

Subject:- Unit Operation in Food Processing /Processing of food Engg

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 Unit operations are the_____operations to remove the impurities

a) Physical b) Chemical

c) Biological d) Biochemical

Q.2 What are the size reduction laws?

a) Rittinger's Law

b) Kick's Law

c) Bond's Law

d) Rittinger's Law, Kick's Law and Bond's Law

Q.3 What is the size of openings of a coarse screen?

a) 6mm-150mm b) 150mm-200mm

c) >200mm d) <6mm

Q.4 Which type of mixer is used when the flow needs to be changed often?

a) Paddle mixer b) Static mixer

c) Mechanical mixer d) Mechanical aerator

Q.5 Which of the following is a size reduction unit operation in liquids

a) Milling b) Mixing

c) Grinding d) Homogenization

Q.6 What is the removal of fine particle sand dissolved solids called?

a) Filtration b) Sedimentation

c) Deoxidation d) Disinfection

Q.7 What is a hammer mill used for?

a) Crush larger pieces into small pieces

b) To compress the raw materials

c) Break down of liquefied emulsion

d) Break smaller pieces into fire powder

Q.8 Cutter mill is fitted with_____knives

a) Stationary b) Rotating

c) Both A and B d) Other than above

Q.9 The process of heating a liquid mixture to form vapors and then cooling the vapors to get pure component is called_____

a) Crystallization b) Distillation

c) Chromatography d) Sublimation

Q.10 In which type of filter rate of filtration is low?

a) Slow and filter b) Rapid sand filter.

c) Gravity filter d) Pressure filter

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 Aim of cleaning?

Q.12 Two methods of sorting?

Q.13 Define the term size?

Q.14 Formula of density?

Q.15 Formula of porosity?

Q.16 CGS stand for_____

Q.17 Define sorting.

Q.18 Give name of any two dry cleaning methods?

Q.19 Give name of any two types of agitators?

Q.20 Define unit operation?

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 What are the aims and application of grading?

Q.22 What are the advantages and disadvantages of wet cleaning?

Q.23 How can we calculate the crushing efficiency?

Q.24 How moisture and hardness affect the efficiency of size reduction?

Q.25 Explain working of color sorter with diagram?

Q.26 Describe advantages of size reduction?