Q.26 How entrained air in the pulp and liquor affect efficiency of pulp washing?

Q.27 Describe the important points for maintenance of vacuum system?

Q.28 What is soda loss? Why it is to be reduced?

Q.29 Discuss the working of a drum displacer in brief?

Q.30 What are the advantages of press washing?

Q.31 What is differences between selective contaminant removal and fractionation in the screening operation?

Q.32 Discuss the concept of screening and cleaning efficiency?

Q.33 Explain the working of a vibratory screen with the help of a schematic diagram?

Q.34 Describe the importance of rotor tip velocity in context of screening operation?

Q.35 How accept flow rate is related to screen efficiency, discuss in brief?

SECTION-D

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

Q.36 Describe operating procedure of a multistage brown stock washer including startup and shut down with the help of neat diagram?

Q.37 Discuss the principles of continuous digester washing with the help of neat diagram?

Q.38 Explain the principle of centri-cleaner? Discuss the different variables affecting the efficiency of a centri-cleaner in detail?

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3rd Sem / Chem. P & P
Subject:- Pulp Washing & Cleaning

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Pulp washing provides desirable benefits associated with increased efficiency in which of the following?

a) Chemical recovery b) Screening
c) Bleaching d) All of the above

Q.2 Which of the following results in after efficient brown stock washing?

a) Decreased environmental pollution
b) Higher effluent colour
c) Poor quality of pulp
d) Higher chemical oxygen demand

Q.3 Which is one of the basic process involved in the pulp washing?

a) Erosion b) Elution
c) Dilution d) Fusion

Q.4 What is value of displacement ratio for a perfect displacement process?

a) 0 b) 0.5
c) 1 d) 1.5

Q.5 Drop-leg seal pots inside the filtrate tanks are provided for what purpose?

a) For water removal b) For air removal
c) For fiber removal d) For dirt removal

Q.6 Which of the following is not a equipment used for brown stock washing?

a) Blower b) Rotary vacuum drum
c) Displacement drum d) Compaction baffle

Q.7 Which one of following action is involved in the working of screening equipment?

a) Cutting b) Impact
c) Compression d) Vibrating

Q.8 What is effect of low dilution factor on the energy requirements of multiple effect evaporators?

a) Increases b) Decreases
c) Unchanged d) Not predictable

Q.9 The maximum theoretical washing effect is given by which of the following terms?

a) Filtrate flow/ Inlet flow
b) Inlet flow/ Filtrate flow
c) Filtrate flow x Inlet flow
d) None of the above

Q.10 Which of the following is required for higher outlet consistencies in drum thickeners?

a) Slusher b) Decker
c) Pump d) Blower

SECTION-B

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

Q.11 What is dewatering?
Q.12 Define the screening?
Q.13 What is thickening factor?
Q.14 What is main objectives of washing?
Q.15 Define the term displacement rate used in pulp washing?
Q.16 When multistage brown stock washer is used in industry.
Q.17 What is effect of temperature on washing efficiency?
Q.18 Which unit is used for the measurement of soda loss?
Q.19 Define the screen capacity?
Q.20 What are the two essential performance components of a pulp screen?

SECTION-C

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

Q.21 Write five harmful effects of poor brown stock washing?
Q.22 Define and discuss concept of dilution factor?
Q.23 Explain the different mechanisms of pulp washing in brief?
Q.24 Define and discuss the drum speed in context of pulp washing operation?
Q.25 Discuss the importance of temperature in the pulp washing operation?