

- Q.29 Mention the effects of wood species on screen capacity.
- Q.30 What is biometric leg?
- Q.31 Write disadvantage of measuring kappa number.
- Q.32 Why pressure screen is used for pulp? Give 2 reasons.
- Q.33 Explain the different variables that affect screen performance.
- Q.34 Differentiate between screening and cleaning.
- Q.35 Explain in brief the advantage of the high heat diffusion washing.

SECTION-D

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

- Q.36 Describe the washing principle and construction of brown stock washer in detail.
- Q.37 List various types of pulp screen ; explain any 3 of them in detail with a suitable diagram of one screen.
- Q.38 Discuss the working and construction detail of rotary drum vacuum filter.

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**3rd Sem / Chemical Engg. (P&P)
Subject:- Pulp washing and cleaning**

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 Choose types of pulp washing equipment.
 a) Digestor b) Vibratory
 c) Rotary Filter d) All
- Q.2 Choose type of pulp screen.
 a) Vibratory b) Gyratory
 c) Pressure d) All
- Q.3 Number of washer in brown stock washing .
 a) 1 b) 2
 c) 3 d) 4
- Q.4 Choose the unit of pressure
 a) Newton b) Decibel
 c) kg d) Pascal
- Q.5 All chemicals used in W/L are expressed as _____
 a) Na₂O b) Na₂S
 c) Na₂SO₄ d) Na₂SO₃

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- Q.6 Choose the formula of sulphuric acid
a) $\text{Na}_2\text{S0}_4$ b) $\text{H}_2\text{S0}_4$
c) CaS0_4 d) BaS0_4

- Q.7 What is the unit of temperature?
a) Newton b) Pascal
c) Second d) Kelvin

- Q.8 What is the unit of vacuum
a) Kelvin b) Milibar
c) Points d) Decibel

- Q.9 Can centricleaner remove plastic materials
a) Yes b) No

- Q.10 _____ is used to determine the degree of delignification.
a) Copper No. b) K No.
c) Hypo No. d) None

SECTION-B

Note: Objective type questions. All questions are compulsory. $(10 \times 1 = 10)$

- Q.11 What is objective of washing ?
Q.12 Define thickening factors.
Q.13 Expand B S W.
Q.14 Write the advantage of vacuum washer.

- Q.15 What is the percentage of final rejection from three stage centre cleaner?
Q.16 Which cleaner is used for removal of mineral particle?
Q.17 What is done with rejects of vibratory screen of wash plants?
Q.18 Give a principle of pressure screen.
Q.19 Name filter media used in rotator vacuum washer.
Q.20 What will be effect of impurity (in pulp) in the final paper?

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. $(12 \times 5 = 60)$

- Q.21 Explain the objective of washing
Q.22 Write a note on loading factor.
Q.23 Explain generation and maintenance of vacuum.
Q.24 Define soda loss and its importance.
Q.25 List any 5 type of pulp screen.
Q.26 Draw a neat diagram of single stage centri cleaner
Q.27 Define screening quotient.
Q.28 Explain the complete procedure for determination of KMnO_4 number.

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