

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

- Q.3 Describe in detail the necessity of screening and cleaning of stock ahead of paper making machine.
- Q.4 Draw neat and labelled sketch of fourdrinier machine.
- Q.5 Explain theory and mechanism of wet web pressing.
- Q.6 Attempt any two of the following:
- a) Paper machine wire changing methods.
 - b) Press section variables.
 - c) Press felt treatment.
- Q.7 A paper machine is producing 15,000 kg/day paper of 80 gsm. If the width of the paper is 170 cm and machine efficiency is 90%, Calculate the speed of machine in meter/minute.

No. of Printed Pages : 4

Roll No.

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5th Sem. / P&P, Chem. Engg.

Subject : Paper Making-I

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1
- a) Define paper.
 - b) Define slice.
 - c) State the function of head box.
 - d) What is white water?
 - e) What is Cobb valve?
 - f) Name the material of construction of fourdrinier wire.
 - g) State approximate consistency of pulp leaving the head box.
 - h) Define calendering of paper sheet.
 - i) State the function of pope reel.

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- j) State the role of Nash type pumps.
- k) Define 'web formation'.
- l) Define crowning.
- m) Define 'felt' in fourdrinier machine.
- n) For what purpose is cylinder mold machine used?
- o) Define pulp consistency.
- p) How to determine wire side of paper?
- q) State the role of steam in paper making machine.
- r) State the function of 'Doctor Blade'.

SECTION-B

Note: Short answer type questions. Attempt any ten parts
10x4=40

- Q.2
- i) With neat sketch, explain the working principle of head box.
 - ii) Explain the function of various types of slice.
 - iii) What is couch roll? Explain its working.

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- iv) Explain drainage system in fourdrinier machine.
- v) Explain working principle of wire gauze in the fourdrinier machine.
- vi) Draw neat flow diagram of backwater system.
- vii) Explain working principle of Cycloidal Pump.
- viii) With neat sketch, explain working of Turbo Compressor.
- ix) Explain types of press arrangements in fourdrinier machine.
- x) Explain conditioning of press felt.
- xi) Write a note on suction rolls.
- xii) Write a note on chest volume.
- xiii) Draw neat sketch of cylinder mold machine and explain its purpose.
- xiv) Explain the duties of machine tender.
- xv) Consistency of 2500 kg of pulp stock is to be reduced from 12% to 0.9%. Calculate the amount of water to be added.

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