

Q.24 Briefly discuss fibre morphology.

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Roll No.

Q.25 Draw a block diagram to give an overview of paper making process.

1st Sem. / Chem P & P

Subject : Introduction to Pulp & Paper Technology

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 paper can be made from

- a) soft wood
- b) hard wood
- c) grass
- d) all of the above

Q.2 Wood of walnut tree is an example of

- a) hard wood
- b) soft wood
- c) both a & b
- d) none of the above

Q.3 The composition of effective alkali is

- a) $\text{NaOH} + \text{Na}_2\text{S}$
- b) $\text{NaOH} + 1/2 \text{Na}_2\text{S}$
- c) Na_2CO_3
- d) NaHCO_3

Q.4 Name the sugars produced by hydrolysis of hemicellulose

(80)

(4)

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- a) hexoses
- b) pentoses
- c) both a & b
- d) none of the above

Q.5 Lighter wood is also known as

- a) late wood
- b) summer wood
- c) spring wood
- d) none of the above

Q.6 The liquor consisting of $\text{Na}_2\text{CO}_3 + \text{Na}_2\text{S}$ is

- a) green liquor
- b) black liquor
- c) white liquor
- d) none of the above

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. $(6 \times 1 = 6)$

Q.7 Define pulp.

Q.8 Define hemicellulose.

Q.9 Define pulp consistency.

Q.10 Define cooking cycle.

Q.11 Define pulp bleaching.

Q.12 Define pulp washing.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. $(8 \times 4 = 32)$

Q.13 What are the applications of paper?

Q.14 Write the names of 4 paper mills in India?

Q.15 What are the properties of extractives?

Q.16 What do you mean by permanganate no?

Q.17 Write a short note on secondary wall of fibre.

Q.18 What do you mean by displacement ratio?

Q.19 Write a short note on sulphate pulping.

Q.20 What do you mean by pulp refining? Explain briefly.

Q.21 What are different chemical components of wood? Name them.

Q.22 Define pulping. Name different types of pulping.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. $(2 \times 8 = 16)$

Q.23 a) What are the problems of paper industry?

- b) Briefly describe the following terms-
causticity
causticizing efficiency