

## **SECTION-D**

No. of Printed Pages : 4

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**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 a) Name the factors that affect the location of any paper industry in India.
- b) Briefly describe the following terms- sulphidity, causticizing efficiency

Q.24 Define extractives. What are its types? Explain.

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

**1st Sem. / Chem. P&P**

**Subject : Introduction to Pulp and Paper Technology**

Time : 3 Hrs.

M.M. : 60

## **SECTION-A**

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

- Q.1 The raw materials used for paper industry are
- a) bamboo
  - b) sebia grass
  - c) salia wood
  - d) all of the above
- Q.2 Fibre of \_\_\_\_\_ wood is longer
- a) hard wood
  - b) soft wood
  - c) grass
  - d) none of the above
- Q.3 The composition of active alkali is
- a)  $\text{NaOH} + \text{Na}_2\text{S}$
  - b)  $\text{NaOH} + 1/2 \text{Na}_2\text{S}$
  - c)  $\text{Na}_2\text{CO}_3$
  - d)  $\text{NaHCO}_3$
- Q.4 How many layers are there in a fibre wall?
- a) one
  - b) two
  - c) four
  - d) six

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**Q.5** Name the central part of fibre structure

- a) primary wall      b) lumen
- c) middle wall      d) secondary wall

## **SECTION-C**

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

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

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

**Q.13** What are the problems of paper industry?

**Q.14** What is the scope of paper industry?

**Q.15** Write a short note on lignin.

**Q.16** Write the properties of hemicellulose.

**Q.17** Write a short note on dilution factor.

**Q.18** What do you mean by kappa no.?

**Q.19** Write a short note on soda pulping.

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

**Q.21** Define Pulping and name different types of pulping.

**Q.22** Define Pulping and name different stages of pulping.

**Q.7** Define paper.

**Q.8** Define cellulose unit.

**Q.9** Define pulp yield.

**Q.10** Define bath ratio.

**Q.11** Define pulp refining.

**Q.12** Give an example of hard wood.

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(3)

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## **SECTION-B**

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