

Total number of printed pages-3

53 (IE 812) ICPI

2016

**INSTRUMENTATION AND CONTROL IN
PAPER INDUSTRY**

Paper : IE 812

Full Marks : 100

Time : Three hours

***The figures in the margin indicate
full marks for the questions.***

Answer any five questions.

1. (a) What are the types of wood used for making pulp? 10
- (b) What are the various grades of paper and its properties? 10
2. (a) Write short notes on continuous and batch digesters. 10
- (b) Explain the pulp recovery process using mechanical method. 10

Contd.

3. (a) Enumerate the chemical recovery process in detail with neat diagram. 15
- (b) List the drawbacks in the chemical recovery process. 5
4. (a) Explain the operation of demineralization (DM) plant. 10
- (b) What are the needs of treatment and disposal in paper making process? 10
5. (a) Define the term consistency as used in paper and pulp industry. 10
- (b) Define pH of liquids and what is the pH value for pulp. 5
- (c) Differentiate the continuous process and batch process. 5
6. (a) Write in brief the white liquid flow control process. 10
- (b) Explain with necessary diagrams the working of Brown stock washer level controller. 10

7. Write short notes on the following :
4x5=20

(a) SCADA

(b) DDC

(c) PLC

(d) DCS