

(3 Hours)

[Total Marks: 80]

**N.B.**

1. Question No.1 is **Compulsory**.
2. Answer any **three** questions from the remaining **five** questions.
3. Give **illustrations, examples** and **draw diagram** wherever necessary.
4. Indicate **question no.** properly.
5. **Figures** to the **right** indicate **full marks**.

1. a. Write a short notes on the following: Plate proofing & Job Card. 05  
 b. Describe the step by step procedure of making water-less litho plates. 05  
 c. Enumerate the precautions needed during selection, storage and handling of blankets. 05  
 d. Write the advantages and disadvantage of common impression cylinder press design. 05
  
2. a. Find the OEE of the offset machine: 10  

Production Parameter	Heidelberg (SM52)
Production Breakdown	220 min/week
M/c Breakdown	470 min/week
Production rate(Imp/min)	0.3 imp/min
Total Production	5700 imp
Total rejected	20 imp
Total Operation time	2400 min

  
 b. Discuss the significance of the following in offset printing. 10  
 i) Screen Angle      ii) Ink Sequence
  
3. a. What are the different types of paper feeding system on sheet offset presses. 05  
 b. Describe the inking unit in sheet fed offset printing press. 05  
 c. Write a short note on Contact Angle. 05  
 d. Write a note on contact and non contact bearer system on plate cylinder. 05
  
4. a. Describe with neat sketch flowchart of Production System. 10  
 b. Explain in brief on following: i) Registration mark, ii) Punch hole in plate, iii) Paper conditioning, iv) Job quotation. 10

**TURN OVER**

5. a. Find the total cost of job as follows. 10
- Basic Flyer
  - Print Copies: 1000
  - Close Size: 297 X 210 mm
  - Paper Type: 150 GSM FAP-SAPPI
  - No of Pages: 02
  - Front Process Color: 04
  - Back Process Color: 04
  - Mill sheet= 22x32inches
  - Print sheet= 16x22inches
  - Plate cost =Rs. 300/-
  - Printing Cost=Rs0.40
  - Paper Cost= Rs 5.47
- b. Describe the step by step process of making deep etch plates. 10
6. a. Draw '16 pages full size imposition scheme' for **Book Inside** .Show gripper margin, folding margin, center margin & cutting line. 05
- b. What are positive and negative working plates. 05
- c. Why you required tension control system, describe the dancer roller tension control system. 10
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