

BACHELOR OF PRINTING ENGINEERING EXAMINATIONS 2025

(Fourth Year First Semester)

NEWS PAPER PRINTING TECHNIQUES

Time: Three hours

Full Marks: 100

CO-1(answer any one)

1. (a) Discuss in brief the working principle of Optical Character Recognition.
(b) Modern Optical Character Recognition devices are called Intelligent Character Recognition devices. Why ?
(c) Discuss in brief the application of Optical Character Recognition.
2. (a) What are the basic differences between text scanner and image scanner ?
(b) Discuss in brief the working principle of telecommunication system.
(c) Discuss in brief the problems occurred in transferring data through telecommunication systems.

5+10+5=20

5 +5 +10 =20

CO-2(answer any one)

3. (a) Discuss in brief the functions of the following equipments used in Computer-to-Plate units: -
 - (i) Digital Front End (DFE).
 - (ii) Post Script Interpreters and RIPs.
(b) Discuss in brief the working principle of the following type of exposure units used in CTP with their merits and demerits:-
 - (i) Internal Drum Type
 - (ii) External Drum Type
4. (a) Draw the digital work flow of the CTP system.
(b) What are the benefits of adopting the CTP system?
(c) The flatbed type CTPs are more suitable for newspaper industry. Why?
(d) Hybrid type CTP plates need two different exposures for processing. What are those? What are the purposes of these two distinct exposures ?

(5+5)+(5+5)=20

10+5+3+2=20

CO-3(answer any two)

5. (a) Discuss in brief, the Different types of Reel Stands
(b) Discuss with schematic diagrams the different types Blanket to Blanket type and Drum type web-offset presses.
6. (a) Discuss in brief about the different types of web turning devices used in web offset press.
(b) Discuss in brief how the infeed tension is controlled in web offset press.

10+10=20

10+10

[Turn over

7. (a) Basement type reel stands is preferred in comparison with inline reel stands. Why?
 (b) How is the reel splicing system actuated?
 (c) Discuss in brief, the perfecting method adopted in printing by Common Impression Cylinder Type web offset presses.
 (d) Discuss with sketch side lay control of web in web offset presses.
 (e) Discuss the heading control system used in web offset presses. 3+2+5+6+4=20

CO-4(compulsory)

8. (a) Web rollers are made of metal. Why? 2
 (b) Web breakage detectors are placed by the side edges of the web. Why? 2
 (c) What is the function of the metering rollers? 3
 (d) What are the importance of side lay control in web offset printing press? 3
9. Calculate the amount of newsprint and ink required to print 16 pages black and white newspaper of 480000 copies including wastage.
 Reel width-32", 1 Reel will produce 16000 copy, 1 Reel weight = 460 Kg, Ink mileage =16000.