

B.PRINTING ENGINEERING EXAMINATION 2024

(FOURTH YEAR FIRST SEMESTER)

SUBJECT: NEWS PAPER PRINTING TECHNIQUES

Time: Three hours

Full Marks: 100

CO-1(answer any one)

- 1.(a) Define "Newspaper"
- (b) Draw the flow chart of the newspaper publishing.
- (c) Modern Optical Character Recognition Devices are often referred to as Intelligent Character Recognition Devices. Why? 5+7+8=20
2. (a)Laser printers are often referred to as Intelligent Copiers. Why?
- (b) Discuss the image formation in the laser printer.
- (c) The resolution of the laser printed image is lower than that of the image setter or Computer to plate output. Why?
- (d) What is the basic difference between postscript file and bitmap file? 3+5+10+2=20

CO-2(answer any one)

3. (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 ? 10+5+3+2=20
4. (a) Discuss in brief the external drum type and the internal drum type CTPs.
- (b) Discuss in brief, the silver halide type CTP and the Polymer type CTP plate including the basic structures, exposures, processing, merits and demerits. 5x2+5x2=20

CO-3(answer any two)

5. (a) Discuss in brief, the elements of reel stands used in web offset presses.
- (b) How is the infeed tension obtained in web offset presses? Discuss.
- (c) What is double ending? 8+8+4=20
6. (a) Discuss in brief, the different types of web turning devices used in web offset presses.
- (b) Basement type reel stands is preferred in comparison with inline reel stands. Why?
- (c) How is the reel splicing system actuated? 15+3+2=20
7. (a) Discuss with neat sketch the flying speed reel splicing system used in web offset presses.
- (b) Discuss with sketch Harris-Cottrell brush dampening system used in web offset presses. 10+10=20

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CO-4(answer all)

8. (a) Web rollers are made of metal. Why?
(b) Web breakage detectors are placed by the side edges of the web. Why?
(c) What is the function of the metering rollers?
(d) What are the importance of side lay control in web offset printing press?
(f) What is the function of the web turner bar ? 2+2+2+2+2=10
9. Calculate the amount of newsprint and ink required to print 16 pages black and white newspaper of 320000 copies including wastage.
Reel width-32", 1 Reel will produce 16000 copy, 1 Reel weight = 460 Kg, Ink mileage =16000.
Consider wastage 5% per colour. 10