

Answer key for : R.P. Code 24445

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Subject :- Flexography Printing

Branch :- Printing & Packaging Technology

Year/Sem :- Third year - V sem.

Q1] - a] Design & Artwork

→ five points covering packaging/publication design ((5m)
consideration, w.r.t repeat length & cylinder width.

b] Pre-press operation

→ points covering plate making, mounting & distastion (5m)
short

c] Press-unit :

→ Short note on types of presses i.e stack, inline, (5m)
CIC,

d] Process print Quality control :

→ Online or offline checking on print quality (5m)
with parameters like Dot gain, Lab, Density

Q2] a] Any one flexo plate mounting process

→ Automatic (Semi-automatic) } with imaging
OR } camera & monitor
Manual

Diagram — (4m)

Explanation of ~~procedure~~ - structure - (1m)

Explanation for procedures — (5m)

b] Principle of stroboscope

→ principle — (2m) (i.e flicker frequency to repeat length frequency)

→ explanation for working — (4m)

→ Diagram (neatly drawn) — (3m)

→ Labels — (1m)

Q3] of Plate distortion

- i) Concept of plate distortion ————— (4m)
- ii) Neat labeled dia. for distortion ————— (8m)
- iii) formula (showing connections/ association with label entities in diagram) ————— (1m)
- iv) Example with certain values ————— (2m)

3] Types of flexographic CTP plates with respect to exposure & development

- i) plate face exposure directly with laser + development in favourable solv. followed by post-exposure } (2.5m)
- ii) plate face exposure after creating stencil with laser on top mask layer
(a) + development with favourable solv. + followed by post exposure } OR { (b) + unexposed polymer is thermally liquified & wiped out gently + post exposure } (5m)
- iii) Direct plate ablation to distinguish IA & NIA. + followed by removal of residual debris of rubber or polymer } (2.5m)

Q4] of Dancer roller assembly

- Principle ————— (2m)
- Diagram with labels ————— (3+1m)
- Controlling tension in close loop explaination ————— (4m)

5] Step by step process of sheet photopolymer

- Diagram for each step (2m each)
 - i) Back exposure
 - ii) face ———
 - iii) Development
 - iv) Post exposure
 - v) Drying.

Q 5] a] Print type web guide.

- i) Purpose & principle ————— (2 m)
ii) Labeled diagram ————— (4 m)
iii) Position in machine/web path ————— (4 m)
& functioning explanation
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b] Pin register system

- i) Explanation step by step ————— (6 m)
ii) Diagram ————— (4 m)
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Q 6] a] Structure & Orientation of printing unit in
stack press

- i) Structure (Diagram) ————— (4 m)
(typical print unit showing Impression, ~~Print~~ Plate,
Anilox, fountain in horizontally inclined position)

{* ~~is~~ complete stack press diag. is not required at all. }

- ii) Explanation with respect to ink flow path ————— (6 m)
keeping in mind its liquid nature)
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b] Anilox roll construction

- i) Anilox roll construction showing ————— (2 m)
show its shaft, cylindrical body, &
multiple layer for engr metal / alternative material)
to ~~create~~ achieve engravability (malleability)
ii) its explanation ————— (3 m)

- iii) Diagrams of cell structure ————— (5 m)
with one line description
ex. - trihelical — Quadchannel
- inverted pyramid
- Quadrangular