

BACHELOR OF PRINTING ENGINEERING EXAMINATION 2022
(Second Year, Second Semester)
PRINTING SURFACE PREPARATION

Time: Three hours

Full Marks: 100

Answer any Five Questions

1. (a) What is the composition of the brunaking solution used in Egg Albumen and Deep Etch Processes ?
Discuss the effect of brunaking in coating thickness and image quality.
- (b) What happens when one step additive developing solution is rubbed on exposed diazo Plate?
- (c) Why alkaline developer is used in Positive working Presensitized plate.?
- (d) What is stop out in deep etch plate making?
- (e) During the summertime special developing solution is to be used to develop the gum Deep etch plate. Why?
- (f) What are the functions of the transparent protective layer in Waterless Offset Plate?
(3+4)+3+3+3+2+2=20
2. (a) What are the merits and demerits of Waterless Offset Process?
- (b) What are the properties Silicone Resin have, for which it is used as imaging material for the non-image areas of the waterless offset plate ?
- (c) What do you mean by additive and subtractive presensitized plate? Discuss in brief.
- (d) Discuss in brief, how the plate grains are evaluated. 5+4+4+7=20
3. (a) Discuss in brief, the basic structure of the Positive Working Waterless offset plate.
- (b) Discuss in brief, the imaging and processing of the Positive Working Waterless offset Plate. 5+15=20
4. (a) What are the advantages of the deep etch plate over the surface plate?
- (b) What are the constituents of the regular developing solution used in gum deep etch Plate preparation?
- (c) What are the constituents of the etching solution used in gum deep etch plate preparation? Discuss in brief.
- (d) What are the purposes of anodizing?
- (e) What are the merits and demerits of brush graining process? 7+2+3+5+3=20
5. What are the factors which influence the sensitivity to light of the bichromated colloid films used in lithographic plate making? Discuss in brief. 20
6. (a) Why the pH of the gum arabic solution used in desensitizing of lithographic plate should be kept near about 3.0 for most effective result?
- (b) What are the purposes of counter etching the base metal for lithoplate?
- (c) What are the properties gum arabic possess for which it is considered as desensitizing solution for lithoplate?
- (d) What are the preferences of the platemakers and printers so far as plate grain is considered ? Discuss with reason. 5+5+6+4=20
7. (a) Why is Al selected as base metal for image surface preparation of offset printing?
- (b) What are the purposes of graining the base plate used in lithographic printing surface preparation?
- (c) What are the factors which influence the mechanical graining of the lithographic Plates? Discuss in brief. 5+5+10=20