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Name.....

Reg. No.....

**FIFTH SEMESTER B.Sc. (PRINTING TECHNOLOGY) DEGREE
EXAMINATION, NOVEMBER 2017**

Printing Technology

PT 501 (P)—PACKAGING TECHNOLOGY

Time : Three Hours

Maximum : 75 Marks

Part A

Answer all questions.

1. What do you mean by a package? What are its functions?
2. What is the influence of package shape in selecting a product?
3. Discuss the advantages and applications of expanded polystyrene.
4. What are the characteristics of glass which makes it a good packaging material?
5. Explain various methods of preserving wood.
6. Write notes on various metals used for packaging.
7. Describe paper, carton and corrugated board.
8. What are the features of plastic corrugated boards?
9. What are the advantages of Modified Atmospheric packaging?
10. Discuss four types of labels.

(10 × 2½ = 25 marks)

Part B

Answer any five questions.

11. Explain various corrosion prevention methods.
12. Discuss the features of various types of cushioning materials.
13. Explain the manufacturing process of glass.
14. Discuss various types of paper and boards used for packaging.
15. Explain the process of manufacturing corrugated board.
16. Discuss different carton styles.
17. Explain the process of vacuum metallization and its advantages.
18. Discuss the classification of adhesive tapes on the basis of backing.

(5 × 10 = 50 marks)

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**FIFTH SEMESTER B.Sc. (PRINTING TECHNOLOGY) DEGREE
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PT 502 (P)—FLEXOGRAPHY

Time : Three Hours

Maximum : 75 Marks

Part A

Answer all questions.

1. Compare flexography and letterpress.
2. Explain the parts of a flexographic printing press.
3. Discuss the two major sectors of flexography.
4. What are the compounds used for making rubber plate? Brief.
5. Discuss auxiliary equipments needed to produce printing plate.
6. What are the consequences of improper web tension?
7. Why web guide is necessary?
8. With neat diagram, explain reverse angle doctor blade system.
9. Discuss the methods of pre-press make-ready.
10. Write notes on various compounds used for fountain roller covering.

(10 × 2½ = 25 marks)

Part B

Answer any five questions.

11. With neat diagrams, explain the following variations in flexo press :
 - (a) Tympan bar.
 - (b) Smoothing bar.
 - (c) Offset gravure.
 - (d) Nip roll coating.
12. Discuss the components of a barcode and 2 methods of verifying a printed barcode.
13. With neat diagram, explain the process of preparing a liquid photopolymer plate.
14. Discuss the following equipments required for manufacturing molded printing plate :
 - (a) Molding press.
 - (b) Thickness control bearers.
 - (c) Bench micrometers.
15. With neat diagram, explain the features, advantages and disadvantages of Inline press configuration.
16. Discuss various cell structures of anilox roller.
17. Explain the procedure for mounting and proofing a complete line job.
18. Write notes on checking the equipment and understanding the mounting instructions for plate mounting.

(5 × 10 = 50 marks)

**FIFTH SEMESTER B.Sc. (PRINTING TECHNOLOGY) DEGREE
EXAMINATION, NOVEMBER 2017**

Printing Technology

PT 503 (P)—PRINTING MACHINERY AND MAINTENANCE

Maximum : 75 Marks

Time : Three Hours

Part A

Answer all questions.

Each question carries 2½ marks.

1. What are the main objective of maintenance management in a printing industry?
2. In a small printing press with limited printing machines, which type of maintenance system would be preferred? Why? Explain.
3. Explain the daily maintenance activities performed in a sheet fed offset printing machine.
4. Explain the conventional tests of a lubricant.
5. Explain the functions of a lubrication department.
6. With a neat diagram, explain the working of a DC motor.
7. List and explain the different motor enclosures used in printing industry.
8. What is the function of a “Contractor” in an electrical circuit? Explain the different types of “Contractors”.
9. Explain the maintenance activities of a hydraulic system.
10. Write down the importance for test run in a printing industry.

(10 × 2½ = 25 marks)

Part B

Answer any five questions.

Each question carries 10 marks.

11. List and explain the factors that determine the effectiveness of a maintenance organization of a printing firm.
12. Differentiate between “Breakdown maintenance” and “Routine maintenance”.
13. Explain five major factors that influence the decisions on “Reconditioning” of a printing machine.
14. Explain four types of lubricants and their applications.
15. Explain the major problems that may arise in an electric motor and describe the remedy for these problems.
16. Explain the two types of overload relay switches used in electrical circuits.
17. With neat diagram explain the working of following compressors :
(a) Reciprocating compressor. (b) Rotary compressors.
18. Explain the common problems encountered is day to day life electricity.

(5 × 10 = 50 marks)

**FIFTH SEMESTER B.Sc. (PRINTING TECHNOLOGY) DEGREE
EXAMINATION, NOVEMBER 2017**

Printing Technology

PT 504 (P)—NEWS PAPER AND PERIODICAL PUBLISHING

Time : Three Hours

Maximum : 75 Marks

Part A

Answer all questions.

Each question carries 2½ marks.

1. Write notes on contents of a newspaper.
2. What are the different types of newspaper?
3. Discuss five types of headlines.
4. What are the skills required by a layout person?
5. Write notes on the following determinants of news :
 - (a) Impact.
 - (b) Prominent.
6. Discuss the following terms used in layout planning :
 - (a) Page layout.
 - (b) Mock up.
 - (c) Cover layout.
7. Write notes on photo editing.
8. Discuss the features of pictures as a design element for newspaper.
9. Difference campus and professional magazine.
10. Write notes on Ethics and press freedom.

(10 × 2½ = 25 marks)

Part B

Answer any five questions.

Each question carries 10 marks.

11. With the help of a flow chart, explain the organizational structure of newspaper industry.
12. Discuss the importance of checking the quality of incoming materials for newspaper production.
13. Explain different stages of layout planning.
14. Explain the process of technical editing in manuscript editing.
15. Explain various steps involved in the process of editing conference proceedings.
16. What are the different types of features in a magazine?
17. Explain the process of copy editing.
18. What are the differences between magazine and newspaper? Explain.

(5 × 10 = 50 marks)

**FIFTH SEMESTER B.Sc. (PRINTING TECHNOLOGY) DEGREE
EXAMINATION, NOVEMBER 2017**

Printing Technology
PT 505 (P)—ON-DEMAND PRINTING

Time : Three Hours

Maximum : 75 Marks

Part A

Answer all questions.

1. Explain the publishing concepts of On-demand printing.
2. What changes are to be incorporated to accommodate On-demand printing? Explain.
3. Explain the efficiencies of digital and On-demand workflow.
4. Explain the interactivity advantage.
5. What are the value-added strategies for On-demand? Explain.
6. Write a note on WAN.
7. What are the responsibilities of a press director? Explain.
8. Define Variable printing.
9. What do you mean by short run process? Explain.
10. What are the benefits for the buyer in On-demand? Explain.

(10 × 2½ = 25 marks)

Part B

Answer any five questions.

11. Explain the motivation behind the shift of existing process to On-demand.
12. What are the printing products in which On-demand process can be applied? Explain with examples.
13. Explain the five selling factors of On-demand.
14. What is an Ideal Network? Explain.
15. How MicroPress enhances user experience? Explain.
16. Explain the efficiencies of digital and On-demand workflow.
17. Explain the factors that define the future of On-Demand printing.
18. Explain the role of commercial online services in On-Demand process.

(5 × 10 = 50 marks)