

**PERIYAR UNIVERSITY  
PERIYARPALKALAINAGAR  
SALEM - 636 011**



**DEGREE OF BACHELOR OF ARTS  
IN  
DIGITAL PRINT MEDIA CHOICE  
BASED CREDIT SYSTEM**

**SYLLABUS FOR B.A JOURNALISM AND MASS  
COMMUNICATION (DIGITAL PRINT MEDIA)**

**FOR THE STUDENTS ADMITTED FROM THE  
ACADEMIC YEAR 2021 - 2022 ONWARDS**

## **B.A JOURNALISM AND MASS COMMUNICATION (DIGITAL PRINT MEDIA)**

### **Program Outcome**

1. Provides job as a professional Graphics Designer.
2. Helps students to be self-employed in printing and media field.
3. Create ideas to the students regarding their higher studies in the field of Journalism and Mass communication.
4. Basic drawing and visual concepts are made known to the students.
5. Focus on obtaining management related jobs to our students.
6. Both software and hardware skills are made well-known to our students.
7. Different types of printing techniques from traditional to modern methods are thought to the students.
8. Knowledge regarding Quality maintenance, press management, machinery maintenance are made known to the students.
9. Post-Press techniques such as binding, packaging finishing operations are thought to the students.

## **REGULATIONS**

### **1. ELIGIBILITY FOR ADMISSION**

A pass in Higher Secondary Examination or an Examination accepted as equivalent thereto by the syndicate (**10+2 or 10+3 year Diploma**), subject to such conditions as may be prescribed thereto are permitted to appear and qualify for the **Bachelor of Science DIGITAL PRINT MEDIA Degree Examination** of this university after a course of study of three academic years.

### **2. DURATION OF THE COURSE**

The course shall extend over a period of three years comprising of six semesters with two semesters in one academic year. There shall not be less than 90 working days for each semester. Examination shall be conducted at the end of every semester for the respective subjects.

### **3. COURSE OF STUDY**

The course of study shall comprise instruction in the following subjects according to the syllabus and books prescribed from time to time. The syllabus for various subjects shall be clearly demarcated into five viable units in each paper/subject. Part -I, Part-II, Part – III and Part – IV subjects are as prescribed in the scheme of examination.

### **4. EXAMINATIONS**

The theory examination shall be three hours duration to each paper at the end of each semester. The candidate failing in any subject(s) will be permitted to appear for each failed subject(s) in the subsequent examination. The practical examinations for UG course should be conducted at the end of the even semester.

#### **4.(a) Submission of record notebooks for practical examinations**

Candidates appearing for practical examinations should submit bonafide Record Notebooks' prescribed for practical examinations, otherwise the candidates will not be permitted to appear for the practical examinations. However, in genuine cases where the students, who could not submit the record note books, they may be permitted to appear for the practical examinations, provided the concerned Head of the department from the institution of the candidate certified that the candidate has performed the experiments prescribed for the course. For such candidates who do not submit Record Books, zero (0) marks will be awarded for record note books.

### **5. Revision of Regulations and Curriculum**

The University may revise /amend/ change the Regulations and Scheme of Examinations, if found necessary.

#### **6. (a). Passing Minimum – Theory**

The candidate shall be declared to have passed the examination if the candidate secure not less than 40 marks out of 100 (**CIA – 10 marks out of 25 and EA – 30 marks out of 75**) in the University examination in each theory paper.

## **6. (b).PassingMinimum– Practical**

The candidate shall be declared to have passed the examination if the candidate secure not less than 40 marks put together out of 100 (**CIA – 16 marks out of 40 and EA –24 marks out of 60**) in the University examination in each practical paper.

## **7. Question Paper Pattern for B.Sc. Visual Communication Course**

### **7.1(a).THEORY-Question Paper Pattern[EA](Total Marks:75)**

#### **PART–A(15x1=15Marks)**

(Answer ALL questions),(Objective Type-Three questions from each unit)

#### **PART–B(2x5=10Marks)**

(Answer ANY TWO questions)&(One question from each unit with 2 out of 5 questions))

#### **PART–C(5x10=50Marks)**

(Answer FIVE questions)&(Either or Pattern i.e. Internal Choice)

### **7.1(b).THEORY-Internal Marks Distribution[CIA](Total Marks:25)**

- ❖ Attendance:5Marks
- ❖ Assignment:5Marks
- ❖ Internal Examinations:15Marks

### **7.2(a).PRACTICAL–Marks Distribution & Question paper Pattern(Max.Marks:100)**

**[External [EA]: 60 Marks & Internal [CIA]: 40 Marks]**

## **8. Commencement of this Regulation**

These regulations shall take effect from the academic year 2020 - 2021, i.e. for students who are to be admitted to the first year of the course during the academic year 2020 – 2021 and thereafter.

**PERIYAR UNIVERSITY**  
**REGULATIONS FOR B.A JOURNALISM AND MASS**  
**COMMUNICATION (DIGITAL PRINT MEDIA)**

DEGREE COURSE with Semester System  
(Effective from the academic year 2021-2022)

**SCHEME OF EXAMINATIONS**

(The scheme of examinations under CBCS (Choice Based Credit System) for different semesters shall be as follows)

| <b>FIRST YEAR</b> |                                                                                                                             |                                                              |                                                                     |       |         |     |    |             |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------|-------|---------|-----|----|-------------|
| SEM               | SUBJECT CODE                                                                                                                | SUBJECTS                                                     | TOTAL                                                               | HOURS | CREDITS | CIA | EA | TOTAL MARKS |
|                   |                                                                                                                             |                                                              | L                                                                   | T/P   |         |     |    |             |
| <b>I</b>          | 19UFTA01                                                                                                                    | TAMIL-I                                                      | 6                                                                   | T     | 4       | 25  | 75 | 100         |
|                   | 19UFEN01                                                                                                                    | ENGLISH-I-Communicative English                              | 6                                                                   | T     | 4       | 25  | 75 | 100         |
|                   | 20UDP01                                                                                                                     | CORE-I: Fundamentals of Communication                        | 6                                                                   | T     | 4       | 25  | 75 | 100         |
|                   | 20UDP02                                                                                                                     | CORE-II: Concept in Visualisation (Drawing)                  | 5                                                                   | T     | 4       | 25  | 75 | 100         |
|                   | 20UDPA01                                                                                                                    | ALLIED I-Introduction to Social Psychology                   | 5                                                                   | T     | 3       | 25  | 75 | 100         |
|                   | 19UVE01                                                                                                                     | Value Education-Yoga                                         | 2                                                                   | T     | -       | 25  | 75 | 100         |
|                   |                                                                                                                             | <b>Add-On Course –Professional English</b>                   | 3                                                                   | 1     | 4       | 25  | 75 | 100         |
|                   |                                                                                                                             |                                                              | 33                                                                  |       | 23      |     |    | 700         |
| <b>II</b>         | 19UFTA02                                                                                                                    | TAMIL-II                                                     | 6                                                                   | T     | 4       | 25  | 75 | 100         |
|                   | 19UFEN02                                                                                                                    | ENGLISH-II-Communicative English                             | 6                                                                   | T     | 4       | 25  | 75 | 100         |
|                   | NaanMudhalvan Skill Course-                                                                                                 | Language Proficiency for Employability-Effective English     | 2                                                                   | T     | 2       | 25  | 75 | 100         |
|                   | 20UDP03                                                                                                                     | CORE-III: Introduction to Printing Techniques                | 6                                                                   | T     | 4       | 25  | 75 | 100         |
|                   | 20UDPA02                                                                                                                    | ALLIED II-Indian Constitution & Laws for Printing Technology | 5                                                                   | T     | 3       | 25  | 75 | 100         |
|                   | 20UDPP01                                                                                                                    | CORE PRACTICAL I-Concept in Visualisation                    | 5                                                                   | P     | 4       | 40  | 60 | 100         |
|                   | 19UES01                                                                                                                     | Value Education-Human Rights                                 | 2                                                                   | T     | -       | 25  | 75 | 100         |
|                   |                                                                                                                             | <b>Add-On Course-Professional English</b>                    | 3                                                                   | 1     | 4       | 25  | 75 | 100         |
|                   |                                                                                                                             |                                                              |                                                                     | 35    |         | 25  |    |             |
|                   | <b>First Internship Training in any Media/Production House in 30 days/4 weeks [to be undertaken during Summer holidays]</b> |                                                              | <b>Internship report to be evaluated in 4<sup>th</sup> Semester</b> |       |         |     |    |             |

## SECONDYEAR

| SEM        | SUBJECT CODE | SUBJECTS                                                                                                                      | TOTAL                                                  | HOURS | CREDI TS | CIA | EA | TOTAL MARKS |     |
|------------|--------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------|----------|-----|----|-------------|-----|
| <b>III</b> | 19UFTA03     | TAMIL-III                                                                                                                     | 6                                                      | T/P   | 4        | 25  | 75 | 100         |     |
|            | 17UFEN03     | ENGLISH-III                                                                                                                   | 6                                                      | T     | 4        | 25  | 75 | 100         |     |
|            | 20UDP04      | COREIV-Industrial Printing Materials                                                                                          | 6                                                      | T     | 4        | 25  | 75 | 100         |     |
|            | 20UDPA03     | ALLIEDIII-Designing & Planning                                                                                                | 5                                                      | T     | 3        | 25  | 75 | 100         |     |
|            | 20UDPSB01    | SBECI-Photography                                                                                                             | 5                                                      | T     | 3        | 25  | 75 | 100         |     |
|            | 20UDPN01     | NMECI-Social Media Management & Marketing                                                                                     | 2                                                      | T     | 2        | 25  | 75 | 100         |     |
|            | NMSDC        | Digital Skills for Employability- Microsoft office Essentials                                                                 | 2                                                      | T     | 2        | 25  | 75 | 100         |     |
|            |              |                                                                                                                               | 32                                                     |       | 22       |     |    |             |     |
| <b>IV</b>  | 17UFTA04     | TAMIL-IV                                                                                                                      | 5                                                      | T     | 3        | 25  | 75 | 100         |     |
|            | 17UFEN04     | ENGLISH-IV                                                                                                                    | 5                                                      | T     | 3        | 25  | 75 | 100         |     |
|            | 20UDP05      | COREV-Writing for Digital Media                                                                                               | 5                                                      | T     | 4        | 25  | 75 | 100         |     |
|            | 20UDPP02     | COREPRACTICALII-Digital Image Editing                                                                                         | 5                                                      | P     | 4        | 40  | 60 | 100         |     |
|            | 20UDPP03     | COREPRACTICALIII-Page Layout & Design                                                                                         | 4                                                      | P     | 4        | 40  | 60 | 100         |     |
|            |              | NMSDC                                                                                                                         | Employability Skills-Microsoft                         | 2     | T        | 3   | 25 | 75          | 100 |
|            | 20UDPN02     | NMECII-Mobile App Development                                                                                                 | 2                                                      | T     | 2        | 25  | 75 | 100         |     |
|            | 20UDPI01     | First Internship Report Evaluation And Viva                                                                                   | 0                                                      | P     | 4        | 40  | 60 | 100         |     |
|            |              |                                                                                                                               |                                                        | 28    |          | 27  |    |             |     |
|            |              | <b>Second Internship Training in any Media/Production House in 30 days/ 4 weeks [to be undertaken during summer holidays]</b> | <b>Internship report to be evaluated in 6 Semester</b> |       |          |     |    |             |     |

### THIRDYEAR

| SEM                           | SUBJECT CODE | SUBJECTS                                                    | TOTAL    | HOURS    | CREDITS  | CIA       | EA        | TOTAL MARKS |
|-------------------------------|--------------|-------------------------------------------------------------|----------|----------|----------|-----------|-----------|-------------|
| V                             | 20UDP06      | COREVI–Total Quality Maintenance for Printing               | 5        | T        | 4        | 25        | 75        | 100         |
|                               | 20UDP07      | COREVII–Offset Printing Technology                          | 5        | T        | 4        | 25        | 75        | 100         |
|                               | 20UDP08      | COREVIII–Image Processing                                   | 5        | T        | 4        | 25        | 75        | 100         |
|                               | 20UDP09      | COREIX–Printing Machinery Maintenance                       | 5        | T        | 4        | 25        | 75        | 100         |
|                               | 20UDPE01     | Elective–Printing Press Management                          | 5        | T        | 4        | 25        | 75        | 100         |
|                               | 20UDPSB03    | SBECIII–Advanced Printing Techniques                        | 5        | T        | 3        | 25        | 75        | 100         |
|                               | NMSDC        | Marketing and Design Tools – (other Arts) Digital Marketing | 2        | T        | 2        | 25        | 75        | 100         |
|                               |              |                                                             | 32       |          | 25       |           |           |             |
| VI                            | 20UDP10      | COREX–Digital Printing                                      | 6        | T        | 4        | 25        | 75        | 100         |
|                               | 20UDP11      | COREX11–PrintFinishing Operations                           | 6        | T        | 4        | 25        | 75        | 100         |
|                               | 20UDPP04     | COREPRACTICALIV–Binding& Finishing                          | 5        | P        | 4        | 40        | 60        | 100         |
|                               | 20UDPP05     | COREPRACTICALV–Image Processing                             | 5        | P        | 4        | 40        | 60        | 100         |
|                               | 20UDPSB04    | SBECIV–E-Marketing                                          | 4        | T        | 3        | 25        | 75        | 100         |
|                               | 20UDPP06     | COREPRACTICALVI-Digital Print Production Practical          | 4        | P        | 4        | 40        | 60        | 100         |
|                               | 20UDPR1      | Project                                                     | 0        | P        | 5        | 40        | 60        | 100         |
|                               | 20UDPI02     | Internship II-Second Internship Report Evaluation and Viva  | 0        | P        | 4        | 40        | 60        | 100         |
|                               | <b>NMSDC</b> | <b>Employability skills</b>                                 | <b>2</b> | <b>T</b> | <b>2</b> | <b>25</b> | <b>75</b> | <b>100</b>  |
|                               |              |                                                             | 30       |          | 32       |           |           |             |
| <b>TOTALCREDITS&amp;MARKS</b> |              |                                                             |          |          | 154      |           |           |             |

**PERIYAR UNIVERSITY**  
**REGULATIONS FOR B.A JOURNALISM AND MASS**  
**COMMUNICATION (DIGITAL PRINT MEDIA)**  
**DEGREE COURSE with Semester System**  
**(Effective from the academic year 2021-2022)**

**SCHEME OF EXAMINATIONS**

(The scheme of examinations under CBCS (Choice Based Credit System) for different semesters shall be as follows)

**FIRST YEAR**

|                                                    |                   |                               |
|----------------------------------------------------|-------------------|-------------------------------|
| <b>PAPER CODE: 20UDP01</b>                         | <b>SEMESTER I</b> | <b>CORE I &amp; CREDIT: 4</b> |
| <b>SUBJECT NAME: FUNDAMENTALS OF COMMUNICATION</b> |                   |                               |

**Goal:** To enable students to learn principles, concepts and media of communication

**Objective:** On successful completion of this course, the students should have understood the nature and types of communication, Principles of communication, Media's of communication and the models of communication.

**Course outcome:**

|     |                                                                                        |
|-----|----------------------------------------------------------------------------------------|
| C01 | Students would be able to introduce themselves to the theories of Communication.       |
| C02 | Students would be able to inculcate the knowledge of Communication models.             |
| C03 | Students would be able to develop the knowledge of basic elements of Communication.    |
| C04 | Students would be able to acquaint themselves with the various types of Communication. |
| C05 | Students would be able to strengthen the 5Cs of Communication.                         |

**UNIT I:**

Communication concept elements and process, Defining meaning and scope of communication, Types of communication, Barriers of communication and functions of communication.

**UNIT II:**

Models of communication, Aristotle's model, Lasswell model, Shanon and Weaver model, Osgood's model

**UNIT III:**

Theories of Communication, Dependency Theory, cultivation theory, Agenda Setting Theory, Use



and Gratification Theory, Hypodermic Needle Theory, Limited Effects Theory

**UNIT IV:**

Media Theories, Four theories of Press, Interactive Theory: One step flow, Two step flow (Opinion Leaders) and Multi step flow.

**UNIT V:**

Relevance of communication theories to practice – Persuasion, Perception, Diffusion of Innovations, Social Learning and Participatory Communication.

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| 1               | H                | M   | L   | M   | L   | M   | L   | M   | L   |
| 2               | M                | L   | L   | M   | H   | M   | M   | M   | L   |
| 3               | H                | M   | M   | L   | M   | L   | L   | L   | M   |
| 4               | M                | L   | M   | L   | M   | L   | M   | L   | M   |
| 5               | H                | H   | L   | M   | M   | L   | L   | M   | L   |

**BOOKS FOR REFERENCE:**

1. Dennis, Mcquail, Mass Communication Theory, Sage Publication, New Delhi. Schramm, W. & Roberts, D. F.,
2. The Process and Effects of Mass Communication, Urbana, IL: University of Illinois Press. Rayudu. C.S., Communication, Himalaya Publishing House, Mumbai Joshi, P.C.,
3. Communication & Nation – Building – Perspective and Policy, Publication Division, New Delhi. Malhan P.N.,
4. Communication Media, Yesterday, Today and Tomorrow, Publication Division, New Delhi. Agee, Warren K., Ault Philip H.,
5. Introduction to Mass Communication, Oxford & IBH Publishing Company, New Delhi

|                                           |                  |                            |
|-------------------------------------------|------------------|----------------------------|
| <b>PAPERCODE:20UDP02</b>                  | <b>SEMESTERI</b> | <b>COREII&amp;CREDIT:4</b> |
| <b>SUBJECTNAME:CONCEPTINVISUALISATION</b> |                  |                            |

**Goal:** Tomakethestudentsunderstandthevisualisationconcept

**Objective:** Aims to make the student know about the concept of visualisation in related to colour and designing elements.

**Courseoutcome:**

|    |                                                         |
|----|---------------------------------------------------------|
| C1 | Studentswillknowaboutthepsychologyofvisual perception   |
| C2 | Basic colourtheorywillbemadetoknowntothe students       |
| C3 | Studentswillhaveclearideaaboutthebasicdesigningelements |
| C4 | Inculcateknowledgeontone,textureandcontentinadesign     |
| C5 | Knowledgeregardingtheobjectplacementindesignisthought   |

**UnitI:**

ThepsychologyofVisualperception Human eye and vision  
SpatialVision  
ColourspectrumandPsychologyofcolour

**UnitII:**

Colour  
ColourTheory  
Colour Wheel

**Unit III:**

Concepts of line  
Concepts of form  
Conceptsofspace

**UnitIV:**

Concepts of tone  
Concepts of texture  
Conceptsofcontents

**UnitV:**

BalanceRhythm, Unity,  
Harmony  
Perspective,Dominance

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | L                | L   | M   | H   | L   | M   | L   | L   | L   |
| C2              | M                | M   | L   | H   | L   | M   | M   | L   | L   |
| C3              | M                | L   | L   | H   | M   | L   | L   | L   | L   |
| C4              | M                | M   | L   | H   | L   | M   | L   | L   | L   |
| C5              | M                | L   | M   | H   | M   | M   | L   | L   | L   |

**BOOKS FOR REFERENCE:**

1. A Grammar Book of ART & DESIGN by Raviraj – 2008 – Published by New Century Book House Pvt Ltd, Chennai
2. Creating and Understanding Drawings by Gene A. Mittler, James Howze - Macmillan/McGraw-Hill, New York - 1989

|                                                   |                   |                             |
|---------------------------------------------------|-------------------|-----------------------------|
| <b>PAPERCODE:20UDPA01</b>                         | <b>SEMESTER I</b> | <b>ALLIEDI&amp;CREDIT:3</b> |
| <b>SUBJECTNAME:INTRODUCTIONTOSOCIALPSYCHOLOGY</b> |                   |                             |

**Goal:**To enable students to understand Social Psychology as a subject and the basic attributes.

**Objective:** The concept of identity, community and group processes is best understood by students to enable them to gain an insight into psychological aspects in media.

**Course Outcome:**

|     |                                                                 |
|-----|-----------------------------------------------------------------|
| CO1 | To categorize to have a successful communication process        |
| CO2 | To gain social responsibility among students                    |
| CO3 | To acquire knowledge in socialization and motivational aspects. |
| CO4 | To coordinate among different dimensions of attitudes.          |
| CO5 | To develop technical perspective in psychological aspects       |

**UNIT I:**

The Nature and Scope of Social Psychology. The Development of Social Psychology: Early Beginnings – the Contributions of Sociologists and Psychologists: Comte; Le Bon; Durkheim; Cooley;

**UNIT II:**

Specialization: Social Learning Process. Socialization and Motivation; dependency; Aggression; Need Achievement; affiliation.

**UNIT III:**

Attitudes and Opinions the Nature and Dimensions of Attitudes. The Formation and Change of Attitudes. Communication and Persuasion. Public opinion – Nature, formation and change. Role of Mass communication in Public Opinion Formation and change.

**UNIT IV:**

Groups and Group Processes; Nature and Types of groups; Development of Groups; group Dynamics; Group norms and conformity; Group structure and group performance; Cooperation and competition.

**UNIT V:**

Mass Psychology; Audiences and Collective Behavior. Classification of collective masses. Casual Audiences, Intentional Audiences and Audiences and Mass Media. Collective Behavior – the mobs and the Different kinds of Mobs. New Media and Audience Behavior. Social Media and Flash Mobs; Political Movements.

**BOOKS FOR REFERENCE:**

1. McDavid and Harris; "An Introduction to Social Psychology". Harper & Row, 1968.
2. D. C. Crytchfield, R. Sand Ballachey, E. L. "Individual in Society". McGraw Hill. New York.
3. Sherif, N. and Sherif C. W. "An Outline of Social Psychology" Harper & Row. New York.

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | H                | H   | L   | H   | L   | L   | L   | L   | H   |
| C2              | L                | H   | M   | L   | L   | H   | M   | L   | L   |
| C3              | L                | L   | H   | L   | L   | M   | M   | L   | L   |
| C4              | L                | H   | L   | L   | L   | H   | L   | M   | L   |
| C5              | H                | L   | H   | H   | L   | L   | L   | L   | M   |

|                                                     |                   |                             |
|-----------------------------------------------------|-------------------|-----------------------------|
| <b>PAPERCODE:20UDP03</b>                            | <b>SEMESTERII</b> | <b>COREIII&amp;CREDIT:4</b> |
| <b>SUBJECTNAME:INTRODUCTIONTOPRINTINGTECHNIQUES</b> |                   |                             |

**Goal:** To enable students to learn basic printing techniques and types of printing for different types of jobs.

**Objective:** On successful completion of this course, the students should have understood history, principles and types of printing such as Offset, Flexography, Gravure, and Screen Printing.

**Course outcome:**

|     |                                                                                                               |
|-----|---------------------------------------------------------------------------------------------------------------|
| C01 | Students will have knowledge about the emergence of printing.                                                 |
| C02 | Students would be able to inculcate the knowledge of principles of printing process.                          |
| C03 | Students would be able to develop the knowledge on image formation techniques for different printing process. |
| C04 | Students will know about the different types of machines in different printing process.                       |
| C05 | Students would have clear idea on which type of printing suites for different types of jobs.                  |

**UNIT I:**

Evolution of Printing  
Structure of Printing Industry  
Applications of Printing Processes

**UNIT II:**

Basic Principles  
Print recognition of Printing Processes  
Advantages and Limitations of Printing Processes

**UNIT III:**

Classification of Offset Machines  
Types of Offset Machines  
Classification of Web Offset Machines

**UNIT IV:**

Basic configuration of Flexography Machine  
Types of Flexography Machine  
Special application of flexography

**UNITV:**

Classification and types of Gravure machine Parts  
of screen printing press  
Classification of screen printing machines

**BOOKS FOR REFERENCE:**

1. What the printers should know paper–Lawrence A. Wilson–GATF Press
2. Hand Book of Print Media–Helmut Kipphan
3. Introduction to Printing and Finishing–Hugh M. Speris
4. The print Production Manual–J. Peacock, C. Berril and M. Barnard

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | L                | M   | M   | H   | M   | M   | H   | M   | M   |
| C2              | M                | M   | L   | M   | M   | M   | H   | M   | L   |
| C3              | H                | M   | L   | M   | L   | L   | M   | L   | L   |
| C4              | M                | H   | L   | M   | L   | M   | H   | H   | M   |
| C5              | H                | H   | L   | M   | M   | M   | M   | M   | L   |

|                                                                             |                    |                                 |
|-----------------------------------------------------------------------------|--------------------|---------------------------------|
| <b>PAPER CODE:20UDPA02</b>                                                  | <b>SEMESTER II</b> | <b>ALLIED II &amp; CREDIT:3</b> |
| <b>SUBJECT NAME: INDIAN CONSTITUTION &amp; LAWS FOR PRINTING TECHNOLOGY</b> |                    |                                 |

**Goal:** To enable students to learn basic printing techniques and types of printing for different types of jobs.

**Objective:** To provide understanding of knowledge of the Indian constitution and familiarize students with the fundamental rights and duties, related to Press laws and understand the importance of media related laws.

**Course outcome:**

|    |                                                                                                            |
|----|------------------------------------------------------------------------------------------------------------|
| C1 | Student shall have understanding of four Indian Constitution.                                              |
| C2 | Student get aware to legal aspects of the media and its values.                                            |
| C3 | Student have an overview of recent changes and future challenges of media regulation.                      |
| C4 | Shall have understanding of media ethics.                                                                  |
| C5 | Student know how media laws and ethics empower media practitioner to perform their duties with commitment. |

**UNIT I:**

Introduction of the Constitution  
Preamble of the constitution  
Salient features of Constitution  
Amendments in Constitution  
Special provisions

**UNIT II**

Fundamental rights  
Directive principles of state policies  
Fundamental duties  
Emergency powers  
Media Response to Contemporary Challenges (Ref. Point: Newspaper, Magazines, Journals and TV Coverage)

**UNIT III**

Press in India  
Media laws: Introduction  
Significance of media laws  
Freedom of expression in context of media Role of media laws and their application



**UNITIV**

Working Journalist Act

Copyright Act.

Contempt of Court Act

IT Act

Right to Information Act

**UNITV**

Main Provisions of IPC and CRPC

Official Secret Act, Press Council Act

Press and Registration of Book Act

Prasar Bharti Act

Code of Ethics

**BOOKS FOR REFERENCE:**

1. Law of the Press in India, Durgadas Basu, Prentice Hall, London, 1980.
2. Law of Contempt of Court in India, B.S. Nayar, Atlantic New Delhi, 2004
3. Mass Media Law and Regulation in India AMIC publication.
4. Bharat mein Pravesh vidhi by Surendra Kumar & Manas Prabhakar.
5. Mass media law and regulation in India, Venkat Aiyer, AMIC publication.

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | L                | M   | H   | L   | M   | L   | L   | M   | L   |
| C2              | L                | M   | M   | L   | M   | L   | L   | H   | L   |
| C3              | M                | H   | H   | L   | L   | L   | M   | L   | L   |
| C4              | L                | M   | M   | L   | M   | L   | M   | M   | L   |
| C5              | M                | H   | L   | L   | M   | L   | L   | L   | L   |

|                                                      |                   |                                           |
|------------------------------------------------------|-------------------|-------------------------------------------|
| <b>PAPERCODE:20UDPP01</b>                            | <b>SEMESTERII</b> | <b>COREPRACTICALI&amp;<br/>CREDIT : 4</b> |
| <b>SUBJECTNAME:PRACTICALI-CONCEPTINVISUALISATION</b> |                   |                                           |

**Goal:** Determinethenatureandextentofthevisualmaterialsneeded.

**Objective:** Findandaccessneededimagesandvisualmediaeffectivelyandefficiently  
Interpret and analyze the meanings of images and visual media

**Courseoutcome:**

|    |                                                              |
|----|--------------------------------------------------------------|
| C1 | Studentswillknowaboutthecreationofgeometricalshapes          |
| C2 | Basicperspectivesindrawingskillwillbemadeknowntothe students |
| C3 | Studentswillhaveclearideaabouttheoverlappingobjects          |
| C4 | InculcateknowledgeonLightandshadetoandrawingorgraphics       |
| C5 | Drawingusingdigitalmediumsarethoughttothestudents            |

The drawing record should contain exercises completed by each student in every practical class during the first semester with proper dates and signature of the course teacher.Itshouldcontainacontentpageofexercisescompletedbyindividualstudents.The following exercises are compulsory.Each exercise shouldhave at least 5 drawings. {Roughs also should be submitted along with the final drawings.}. Introduction to Materials – pencils, brushes and effects.

- \* Geometricalshapes
- \* Perspectives
- \* Overlappingobjects
- \* Lightandshade
- \* Drawingsusingdifferentmedium

| Course Outcomes | ProgramOutcomes |     |     |     |     |     |     |     |     |
|-----------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01             | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | L               | L   | M   | H   | L   | M   | L   | L   | L   |
| C2              | M               | M   | L   | H   | L   | M   | M   | L   | L   |
| C3              | M               | L   | L   | H   | M   | L   | L   | L   | L   |
| C4              | M               | M   | L   | H   | L   | M   | L   | L   | L   |
| C5              | M               | L   | M   | H   | M   | M   | L   | L   | L   |

## SECONDYEAR

|                                                |                    |                            |
|------------------------------------------------|--------------------|----------------------------|
| <b>PAPERCODE:20UDP04</b>                       | <b>SEMESTERIII</b> | <b>COREIV&amp;CREDIT:4</b> |
| <b>SUBJECTNAME:INDUSTRIALPRINTINGMATERIALS</b> |                    |                            |

**Goal:** To enable students to learn about the different types of printing materials used in a printing industry.

**Objective:** To make the students know about the manufacturing process of paper, board and ink. Also know about the international paper and board sizes and quality.

### **Course outcome:**

|     |                                                                                                |
|-----|------------------------------------------------------------------------------------------------|
| C01 | Student understand the raw materials used for paper and board manufacturing.                   |
| C02 | Student get to know about the manufacturing process of paper and board.                        |
| C03 | Shall have a clear idea on different paper and board sizes and their quality.                  |
| C04 | Students shall have understanding of ink manufacturing process and the raw materials required. |
| C05 | Student know ink drying problems and their remedies.                                           |

### **UNIT I:**

Composition of paper  
Fibrous materials  
Manufacture of paper  
Bleaching process

### **UNIT II:**

Operations in paper making machine  
Paper finishing  
Packing and Delivery  
Board making

### **UNIT III:**

Classifications of paper for printing  
Choice of appropriate quality of paper for different printing processes  
Paper and Board sizes  
Runnability Properties  
Printability Properties  
Paper Problems

**UNITIV:**

Raw materials used for manufacturing of printing inks

General characteristics and requirements of printing inks

Inks for different printing processes

Ink properties

Ink types

**UNITV:**

Ink Drying and Ink Problems

Ink problems

Causes and remedies for Ink problems

**BOOKS FOR REFERENCE:**

1. Lawrence H. Wilson, What the printers should know about paper, GATF Press, Third Edition, 2000.
2. Lothar Gottsching & Heikki Pakarinen, Papermaking Science and Technology, Book 7, Fapet Publishing, 2000
3. Charles Finley, Printing Paper and Ink, Delmar Publisher, 1997.
4. R.H. Leach, The Printing Ink Manual, 5th Edn., Chapman & Hall, London, 2002

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | L                | M   | M   | L   | M   | L   | M   | H   | H   |
| C2              | M                | M   | M   | L   | H   | L   | M   | M   | H   |
| C3              | H                | M   | L   | L   | M   | M   | L   | H   | M   |
| C4              | M                | L   | M   | L   | L   | L   | M   | H   | L   |
| C5              | L                | M   | L   | L   | H   | M   | L   | M   | H   |

|                                              |                     |                                  |
|----------------------------------------------|---------------------|----------------------------------|
| <b>PAPER CODE:20UDPA03</b>                   | <b>SEMESTER III</b> | <b>ALLIED III &amp; CREDIT:3</b> |
| <b>SUBJECT NAME:DESIGNING &amp; PLANNING</b> |                     |                                  |

**Goal:** To enable students to learn about the principles and fundamentals of design and typefaces.

**Objective:** To make the students to know about design principles, usage of different typefaces, layout preparation for books and magazines.

**Course Outcome:**

|     |                                                                                       |
|-----|---------------------------------------------------------------------------------------|
| C01 | Student understand the basic designing elements and their principles.                 |
| C02 | Student get to know about the elements of colour and multicolour printing techniques. |
| C03 | Shall have a clear idea on typefaces and its applications.                            |
| C04 | Student know layout creation techniques for books, magazines and newspaper.           |
| C05 | Students shall have understanding on proofing methods and its procedure.              |

**Unit I:**

Fundamentals of design elements - Line, shape, texture, balance, and contrast. Principles of symmetrical and asymmetrical arrangements.

**Unit II:**

Colour elements - colour application, colour terms - warm colour, cool colours, colour wheel describing complementary, split, double split complementary. Selection of colours for multicolour printing.

**Unit III:**

Main group of typeface design, characters, Type, font series and families. Typographic specifications for different classes of work - Bookwork, Magazine work, Newspaper work and Direct mail literatures. Choosing typefaces for different processes and different paper surfaces. Application and importance of Legibility and Readability. Layout preparation - stages, arrangement of integration of layout and text matter. Introduction to Dummy preparation and its necessity.

**Unit IV:**

Book design - format, parts, page layout and jacket. Magazine design - format, Parts and Types and classification of Magazines. Newspaper design - Newspaper parts, layout design principles, Design elements, Styles of Newspaper headlines. Design aspects of other printed products - Leaflet, Pamphlet, Catalogue, Brochure, Booklets, Labels, Cartons, Typeface and colour selection.

**UnitV:**

Typefonts.

Styleofhouse–copypreparationanditsadvantages,rulesofhousestyle. Proof stages for different kinds of jobs.

Proofreadingsymbols,meaningsandimportance. Casting off – procedures and advantages.

**BOOKSFORREFERENCE:**

Whattheprintersshouldknowpaper–LawrenceA.Wilson–GATFP Press Hand Book of Print Media – Helmut Kipphan

IntroductiontoPrintingandFinishing–HughMSperis

Printing Paper and Ink – Charles Finley.

TheprintProductionManual–J.Peacock,C.BerrilandM.Barnard

| Course Outcomes | ProgramOutcomes |     |     |     |     |     |     |     |     |
|-----------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01             | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | H               | M   | M   | H   | L   | M   | M   | L   | L   |
| C2              | H               | L   | M   | H   | L   | M   | M   | M   | L   |
| C3              | H               | L   | L   | M   | L   | L   | H   | M   | L   |
| C4              | H               | M   | M   | M   | H   | H   | H   | M   | M   |
| C5              | M               | M   | L   | L   | L   | L   | M   | H   | L   |

|                                |                    |                           |
|--------------------------------|--------------------|---------------------------|
| <b>PAPERCODE:20UDPSB01</b>     | <b>SEMESTERIII</b> | <b>SBECI&amp;CREDIT:3</b> |
| <b>SUBJECTNAME:PHOTOGRAPHY</b> |                    |                           |

**Goal:** To create interest in photography among students and create self-employment in the field of photography.

**Objective:** To impart concepts and importance of photography, Impart knowledge on lighting principles and types of photography.

**Course Outcome:**

|     |                                                                                |
|-----|--------------------------------------------------------------------------------|
| C01 | Learner would learn the concepts and importance of photography.                |
| C02 | Learner would be able to understand photo coverage and photo Journalism.       |
| C03 | Learner would be ready to join any media organization as a photo Journalist.   |
| C04 | Learner would know the importance of photo features.                           |
| C05 | Learner would know different branches of photography and may be self-employed. |

**Unit I:**

Introduction and Development of Photography  
 Photo Journalism, Development  
 Role and importance in media  
 Tools of Photography, types of camera  
 Traditional and digital camera, Part of Camera, Camera control,

**Unit II:**

Digital Photography  
 Emergence of Digital technology  
 Selecting Images,  
 Size, and quality  
 Indoor and Outdoor Photography

**Unit III:**

Lighting principles  
 Role of lighting  
 Different types of lighting and its uses  
 Role of subject, quality of photograph  
 Developing of different size of photograph

**UnitIV:**

Photograph Editing Techniques  
Cropping, Enlarging & reducing  
Clipping/Grouping  
Colour composition  
Filter, length, focus, Shots

**UnitV:**

Branches of Photography needs and importance  
Advertising photography  
Modelling & portfolio  
Wildlife Photography  
Photography and Ethics.

**BOOKS FOR REFERENCE:**

1. Digital Photography (Hindi) Books – Author Vishnu Priya Singh, Publisher Computech Publication Limited.
2. Digital Photography (Hindi) Hardcover-2018 by Riyaj Hasan (Author) - Book Enclave, Jaipur.
3. Photography Techniques and Uses (Photography Taknik and Prayog) by Narendra Singh
4. Yadav and Published by Rajasthan Hindi Granth Academy.
5. Practical Photography Digital Camera School: The Step-by-step Guide to Taking Great Picture - By Publisher Carlton Books Ltd. (London).

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | M                | H   | H   | M   | L   | H   | M   | M   | M   |
| C2              | M                | H   | H   | M   | L   | M   | L   | L   | L   |
| C3              | M                | H   | H   | M   | M   | H   | H   | M   | M   |
| C4              | M                | H   | H   | L   | L   | M   | M   | M   | L   |
| C5              | H                | H   | M   | M   | L   | H   | L   | L   | M   |



|                                                        |                    |                           |
|--------------------------------------------------------|--------------------|---------------------------|
| <b>PAPERCODE:20UDPN01</b>                              | <b>SEMESTERIII</b> | <b>NMECI&amp;CREDIT:2</b> |
| <b>SUBJECTNAME:SOCIALMEDIAMANAGEMENT&amp;MARKETING</b> |                    |                           |

**Goal:** To help students learn the working of media organizations

**Objective:** To help students develop the skill of media management

**Course Outcome:**

|     |                                                                       |
|-----|-----------------------------------------------------------------------|
| C01 | Students tend to know about the management structure & its function   |
| C02 | Content related to production management are thought to the students  |
| C03 | Students inculcate knowledge on media convergence                     |
| C04 | Advertising management skills are developed among the students        |
| C05 | Skills related to marketing management are made known to the students |

#### **Unit I: MANAGEMENT STRUCTURE & ITS FUNCTIONS**

Management in Media organization – Structure – nature and process of management – levels of management – Skills, functions and management roles. Theories of management – classical, human relationships, modern approaches to management. Societal and organizational environment.

#### **Unit II: PRODUCTION MANAGEMENT**

Management in Media organization – Structure – nature and process of management – levels of management – Skills, functions and management roles. Theories of management – classical, human relationships, modern approaches to management. Societal and organizational environment.

#### **Unit II: MEDIA CONVERGENCE**

Entrepreneurship – Monopoly, oligopoly. Financial management – Media convergence, economics. Future of media business – Employment opportunities and status of media industry.

#### **Unit IV: ADVERTISING MANAGEMENT**

Advertising management - profit, sales and market share objectives, setting the budget, media selection and media scheduling.

#### **Unit V: MARKETING MANAGEMENT**

Marketing – management – creativity and innovation – internal communication and external communication. Understanding market and factors - audiences – research and analysis, ratings, trends in marketing and selling.

**BOOKS FOR REFERENCE:**

1. Block *etal* (2001). *Managing in the Media*. Focal Press.
2. Alan B. Albarran, S. L. Vi (2006). *A Handbook of Media Management and Economics*— Lawrence Erlbaum Associates Publishers.
3. Andrej Vizjak and Max R. G. L. Stetter (2003). *Media Management*, Springer.
4. William James Willis and Diane B. Willis (2006). *New Directions in Media Management*, Routledge.
5. Alan B. Albarran (2009). *Management of Electronic Media*, Wadsworth.

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | L                | H   | L   | L   | H   | M   | H   | H   | M   |
| C2              | M                | H   | L   | L   | H   | M   | H   | M   | H   |
| C3              | H                | H   | M   | L   | L   | M   | M   | M   | M   |
| C4              | M                | M   | L   | L   | M   | M   | M   | M   | L   |
| C5              | L                | H   | L   | L   | H   | M   | M   | M   | H   |

|                                                |                    |                              |
|------------------------------------------------|--------------------|------------------------------|
| <b>PAPER CODE:20UDP05</b>                      | <b>SEMESTER IV</b> | <b>CORE V &amp; CREDIT:4</b> |
| <b>SUBJECT NAME: WRITING FOR DIGITAL MEDIA</b> |                    |                              |

**Goal:** To make the students understand the writing procedures and techniques for various media particularly for digital media.

**Objective:** To make the students develop knowledge of good writing techniques for news print, radio, television and new Medias.

**Course Outcome:**

|     |                                                                              |
|-----|------------------------------------------------------------------------------|
| C01 | Student understand the basic writing procedure for media                     |
| C02 | Inculcate knowledge on writing for digital print media                       |
| C03 | Students gathered knowledge on writing for web copy and mobile               |
| C04 | Information related to search engine optimisation is thought to the students |
| C05 | Logic and tools related to online copy writing is made known to the students |

**Unit I:**

Sources of Information

Characteristics of different types of media

Varying user experience to different medium

Writing for pictures/images.

**Unit II:**

Writing for Print medium

Public Relations and Press Releases News

stories and Features.

Online story.

**Unit III:**

Types of web copy: Short

copy

Long copy

Blogging

Website copy

Writing for mobile

**UnitIV:**

HTMLforformatting

SEO copywriting

Optimizationofhumanandmachineusers

**UnitV:**

Bestpracticesofonline copywriting:

Conceptualcopywriting

Layout and legibility

Language

Logic

ToolsofTrade

**BOOKSFORREFERENCE:**

1. Mencher, Melvin, (2003), "News Reporting and Writing". New York. McGraw Hill Pub.
2. eMarketing, The essential guide to marketing in a digital world 5<sup>th</sup> Edition

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | L                | M   | H   | L   | M   | H   | M   | M   | L   |
| C2              | M                | M   | H   | L   | L   | H   | M   | M   | L   |
| C3              | M                | M   | M   | L   | M   | M   | H   | H   | M   |
| C4              | M                | L   | M   | L   | M   | H   | M   | M   | M   |
| C5              | M                | L   | M   | L   | M   | M   | M   | H   | L   |

|                                        |                   |                                 |
|----------------------------------------|-------------------|---------------------------------|
| <b>PAPERCODE:20UDPP02</b>              | <b>SEMESTERIV</b> | <b>PRACTICALII&amp;CREDIT:4</b> |
| <b>SUBJECTNAME:DIGITALIMAGEEDITING</b> |                   |                                 |

**Goal:** To create student employability in the field of Graphics Designing especially in raster graphics process.

**Objective:** To make the student familiar in handling image editing software with all the techniques of colour corrections, retouching, manipulation etc.

**Course Outcome:**

|     |                                                                                                                   |
|-----|-------------------------------------------------------------------------------------------------------------------|
| C01 | To make student familiar with image resizing with regard to resolution.                                           |
| C02 | To familiarize student with handling colour concept in digital image.                                             |
| C03 | Student must have clear idea about the redrawing using paths.                                                     |
| C04 | To make students understand about the layer mask, retouching and applying layer style concept.                    |
| C05 | Students should be familiar with creating their own Greeting card, cover page or any graphics designing projects. |

1. Photoshop Toolbar.
2. Transforming Images (Image Size, Canvas Size, Resolution, Rotate, Scale, Skew, Distort, Perspective, Flip Horizontal, Flip Vertical)
3. Color Correction using Adjustment Layers.
4. Selecting images using Marquee tool, Magic wand tool, Lasso Tool.
5. Selecting images using Path.
6. Re-drawing Picture.
7. Creating Layer Mask, Vector Mask & Alpha Channel.
8. Retouching Images using Clone Stamp tool, Healing Brush tool & Patch tool.
9. Working with Layer Styles (Drop Shadow, Inner Shadow, Outer Glow, Inner Glow, Bevel & Emboss)
10. Working with Layer Styles (Satin, Color Overlay, Gradient Overlay, Pattern Overlay, Stroke)
11. Designing a Greeting Card in Photoshop
12. Designing a Note Book Cover Page
13. Designing a Banner
14. Designing a Webpage
15. Creating a Simple Animation in Photoshop

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | H                | M   | L   | M   | L   | H   | M   | M   | M   |
| C2              | H                | M   | M   | H   | L   | H   | L   | M   | L   |
| C3              | H                | M   | L   | H   | L   | H   | M   | L   | L   |
| C4              | H                | H   | M   | M   | M   | H   | M   | L   | L   |
| C5              | H                | H   | L   | M   | L   | H   | M   | L   | H   |

|                                          |                   |                                         |
|------------------------------------------|-------------------|-----------------------------------------|
| <b>PAPERCODE:20UDPP03</b>                | <b>SEMESTERIV</b> | <b>PRACTICALIII&amp;<br/>CREDIT : 4</b> |
| <b>SUBJECTNAME:PAGELAYOUT&amp;DESIGN</b> |                   |                                         |

**Goal:** To create student employability in the field of pagination, newspaper and graphics designing industry.

**Objective:** To make the student familiar in creating pagelayout and improve their skills in graphics designing software's.

**Course Outcome:**

|     |                                                                                                                 |
|-----|-----------------------------------------------------------------------------------------------------------------|
| C01 | To make student familiar in working with text & page to produce inner pages for books, magazines and newspaper. |
| C02 | To familiarize student to create simple designs on different business needs.                                    |
| C03 | Student will have the ability to create logo for any concern, company or product.                               |
| C04 | To make student to design their own calendar with the layout and date.                                          |
| C05 | Students should be familiar with creating their Posters, Certificate and generating barcodes.                   |

1. Creating a book work with Master Pages
2. Creating a News Paper Layout
3. Creating a Magazine Cover Page
4. Designing a Bill Book
5. Designing an Envelope
6. Creating a Letter Head
7. Designing a pamphlet
8. Logo Creation
9. Creating a monogram
10. Creating a Business Card
11. Creating a web banner
12. Creating a monthly Calendar
13. Creating Barcodes
14. Poster Making
15. Creating an A4 certificate

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | H                | M   | L   | M   | L   | H   | M   | M   | M   |
| C2              | H                | M   | M   | H   | L   | H   | L   | M   | L   |
| C3              | H                | M   | L   | H   | L   | H   | M   | L   | L   |
| C4              | H                | H   | M   | M   | M   | H   | M   | L   | L   |
| C5              | H                | H   | L   | M   | L   | H   | M   | L   | H   |

|                                         |                   |                            |
|-----------------------------------------|-------------------|----------------------------|
| <b>PAPERCODE:20UDPN02</b>               | <b>SEMESTERIV</b> | <b>NMECII&amp;CREDIT:2</b> |
| <b>SUBJECTNAME:MOBILEAPPDEVELOPMENT</b> |                   |                            |

**Goal:** To help students to gain a basic understanding of Android application development

**Objective:** To facilitate students to understand android SDK. To inculcate working knowledge of Android Studio development tool

**Course Outcome:**

|     |                                                                                                          |
|-----|----------------------------------------------------------------------------------------------------------|
| C01 | Identify various concepts of mobile programming that make it unique from programming for other platforms |
| C02 | Critique mobile applications on their design pros and cons                                               |
| C03 | Utilize rapid prototyping techniques to design and develop sophisticated mobile interfaces               |
| C04 | Program mobile applications for the Android operating system that use basic and advanced phone features  |
| C05 | Deploy applications to the Android marketplace for distribution                                          |

**UNIT I:**

Introduction to Android: The Android Platform, Android SDK, Eclipse Installation, Android Installation, Building your First Android application, Understanding Anatomy of Android Application, Android Manifest file.

**UNIT II:**

Android Application Design Essentials: Anatomy of an Android application, Android terminologies, Application Context, Activities, Services, Intents, Receiving and Broadcasting Intents, Android Manifest File and its common settings, Using Intent Filter, Permissions.

**UNIT III:**

Android User Interface Design Essentials: User Interface Screen elements, Designing User Interfaces with Layouts, Drawing and Working with Animation.

**UNIT IV:**

Testing Android applications, Publishing Android application, Using Android preferences, Managing Application resources in a hierarchy, working with different types of resources.

**UNIT V:**

Using Common Android APIs: Using Android Data and Storage APIs, Managing data using SQLite, Sharing Data between Applications with Content Providers, Using Android Networking APIs, Using Android Web APIs, Using Android Telephony APIs, Deploying Android Application to the World.

**BOOKS FOR REFERENCE:**

1. Reto Meier, "Professional Android 2 Application Development", Wiley India Pvt Ltd
2. Mark L Murphy, "Beginning Android", Wiley India Pvt Ltd
3. Android Application Development All in one for Dummies by Barry Burd, Edition: I

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | H                | M   | L   | M   | L   | H   | M   | M   | M   |
| C2              | H                | M   | M   | H   | L   | H   | L   | M   | L   |
| C3              | H                | M   | L   | H   | L   | H   | M   | L   | L   |
| C4              | H                | H   | M   | M   | M   | H   | M   | L   | L   |
| C5              | H                | H   | L   | M   | L   | H   | M   | L   | H   |



|                                                       |                  |                            |
|-------------------------------------------------------|------------------|----------------------------|
| <b>PAPERCODE:20UDP06</b>                              | <b>SEMESTERV</b> | <b>COREVI&amp;CREDIT:4</b> |
| <b>SUBJECTNAME:TOTALQUALITYMAINTENANCEFORPRINTING</b> |                  |                            |

**Goal:** To inculcate the knowledge on maintaining quality and maintenance in each and every stages of printing.

**Objective:** To develop a quality atmosphere in printing industry and the printed products.

**Course Outcome:**

|     |                                                                                                                 |
|-----|-----------------------------------------------------------------------------------------------------------------|
| C01 | To make students understand the basic concept of quality and the quality control process.                       |
| C02 | To inculcate knowledge on the importance of inspection and testing.                                             |
| C03 | Students will know about the process control methods in printing industry.                                      |
| C04 | Students will have an idea about the importance of instruments used for quality control in printing industries. |
| C05 | Information regarding the ISO implementation for a printing industry would be made clear to the students.       |

**Unit I: INTRODUCTION**

Definition of Quality terms  
Quality control Process  
Basic elements of Total Quality Management  
Statistical Process Control Tools  
Basic concepts of Kaizen, JIT, 5S, Six Sigma

**Unit II: Material Inspection and Testing**

Storage and Handling of Substrates and Chemicals  
Testing procedures for Paper and board  
Dampening solution testing methods  
Ink testing methods  
Introduction to light viewing booth

**Unit III: Process Control**

Quality control targets  
Color Control patches  
Wastage Management  
Process control charts

**Unit IV: Calibration of Instruments and Profile**

Principle of Densitometer  
Principle of Spectrophotometer  
Analysis of Print Attributes  
CTP calibration and Linearization process

**Unit V: Implementation of ISO for Print Quality**

Introduction to ISO 9001  
Press Calibration to ISO-12647-2 standard  
Implementation of ISO standards in printing organization  
Customer Satisfaction for print industry

**BOOKS FOR REFERENCE:**

1. Total Quality Management, Dale H. Besterfield, Pearson Education, Delhi, 2002
2. Implementing Quality Management in the Graphic Arts, Herschel L. and Michael J.
3. Apfelberg, GATF, Pittsburgh, 1999
4. Digital 19x25-in Test Form 4.1, User Guide, GATF, Pittsburgh, USA 1998
5. Colour control in lithography, Kelvin Tritton, Pira International Surrey UK 1995

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | M                | L   | L   | L   | M   | L   | H   | H   | M   |
| C2              | M                | L   | L   | L   | M   | L   | H   | H   | H   |
| C3              | M                | L   | M   | L   | M   | M   | H   | H   | H   |
| C4              | M                | L   | L   | L   | L   | L   | M   | H   | M   |
| C5              | M                | M   | L   | L   | H   | M   | M   | H   | H   |

|                                                 |                   |                                |
|-------------------------------------------------|-------------------|--------------------------------|
| <b>PAPER CODE:20UDP07</b>                       | <b>SEMESTER V</b> | <b>CORE VII &amp; CREDIT:4</b> |
| <b>SUBJECT NAME: OFFSET PRINTING TECHNOLOGY</b> |                   |                                |

**Goal:** Istomakethestudentslearnabouttheoffsetprintingtechniques,istypesand its structure.

**Objective:** Tocreteknowledgeamongthestudentsregardingthetechnicalspecification of offset printing machines suitable for different printing types.

**Course Outcome:**

|     |                                                                                                 |
|-----|-------------------------------------------------------------------------------------------------|
| C01 | Tomakestudentsunderstandtheprinciplesoflithographyanditstypes.                                  |
| C02 | Toinculcateknowledgeaboutthedifferentprintingunitsinoffset machines.                            |
| C03 | Techniquesonhandlingthefeederanddeliveryunitinoffsetprintingwillme make known to the students.  |
| C04 | Studentswillgetparticularknowledgeonweboffsetprintinganditstypes.                               |
| C05 | Informationregardingpostpressoperationrelatedtotheoffsetprintingwillbe learned by the students. |

**UNIT I-Introduction to Sheetfed Offset Presses**

Principle to Lithography

Structure and Type of presses – Inline Press, Stack Press, Blanket-to-Blanket Press, Common Impression Press

**UNIT II-Printing Unit in Offset Press**

Plate Cylinder, Blanket Cylinder, Impression Cylinder, Transfer Cylinder, Delivery Cylinder

Inking System – Construction, Setting Rollers – Form Roller to Oscillator, Form Roller to Plate, Ductor Roller Setting, Inking System Problems – Roller Streaks, Glazed Rollers, Fountain Blade Problems, Roller Problems

Dampening System – Construction, Composition of Dampening Solution, Dampening Solution pH, Conductivity, Dampening system Roller setting

**UNIT III-Sheet Control and Delivery in Offset Press**

Types of Automatic Feeder – Single sheet feeder, Stream Feeder

Feeder Head Components – Airblast Nozzle, Rear Pickup Suckers, Forwarding Pickup Suckers, Sheet Steadier's, Separator Brushes and fingers

Sheet Registering Devices – Front lay and Side lay

Delivery Section – Jogging the delivery pile, Delivery Assist Devices – Suction Slowdown Rollers, Blow downs, Wedges.

**UNIT IV-Webfed Offset Press – Infeed the Web Guiding Devices** Roll

Stands and Dancer Roll Principle – Types of Reel Stands Automatic

Splicers – Zero Speed Paster, Flying Paster

Web Control – Metering Roller, Box Tilt, Web break detectors, Bustle Wheel.

**UNIT V-Webfed Offset Press – Delivery Unit**

Types of Dryers and Chill Rollers

Mechanics of Folders – Former board Mechanics, Cutoff Cylinder Mechanics, Jaw Folder Mechanics, Chopper Folder Mechanics

Types of Folders –

Combination Folder, Ribbon Folder, Former Folder, Double Former Folders. Auxiliary Equipment's – Stackers, Bundlers, Sheeters, Perforators, Imprinters, Side lay Sensors.

**BOOKS FOR REFERENCE:**

1. A Manual for Lithographic Press Operations – A.S. Porter
2. Handbook of Print Media – Dr. Helmut Kipphan
3. Sheetfed Offset Press Operating – Lloyd P. Dejid and Thomas M. Destree, GATF.
4. Offset Lithography – S. Jaganathan, K.T. Chary
5. Web Offset Press Operating – Daniel G. Wilson, GATF
6. Modern Lithography Printing – Ian Faux

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | M                | H   | L   | L   | M   | M   | H   | M   | M   |
| C2              | L                | M   | L   | L   | M   | M   | H   | M   | L   |
| C3              | L                | M   | L   | L   | M   | M   | H   | M   | L   |
| C4              | M                | H   | L   | L   | M   | M   | H   | M   | M   |
| C5              | M                | H   | L   | L   | M   | M   | H   | H   | H   |

|                                    |                  |                              |
|------------------------------------|------------------|------------------------------|
| <b>PAPERCODE:20UDP08</b>           | <b>SEMESTERV</b> | <b>COREVIII&amp;CREDIT:4</b> |
| <b>SUBJECTNAME:IMAGEPROCESSING</b> |                  |                              |

**Goal:** Tomakethestudentsknowabouttheimageprocessingtechniquesinprinting industry.

**Objective:** Aims to conveyinformation about the colour and its reaction towards the originalsand makingtheoriginalsreadyforimage processingtechniques.

**CourseOutcome:**

|     |                                                                    |
|-----|--------------------------------------------------------------------|
| C01 | Studentswillknowaboutthecolourconceptanditsreactiontowardsthelight |
| C02 | Handlingofcameraandscanner willbemadeknowntothestudents            |
| C03 | Imagereproductiontechniqueswillbemadeknowntothestudents            |
| C04 | Studentswillbeknownaboutthefilmprocessingtechniques                |
| C05 | Offsetplatemakingtechniqueswillbethoughttothestudents              |

**UnitI:OriginalsandColour**

Originals  
Classificationoforiginals  
Light and Colour  
Properties of colour  
Electromagneticspectrumandthevisiblespectrum

**UnitII:DigitalReproductionTechniques**

DigitalCamera–BasicElements  
Image capturing techniques  
Image editing and manipulations

**UnitIII:LineandHalftonePhotography**

Line Reproduction  
HalftoneReproduction  
WorkingPrinciplesofScannersandtheirtypes Steps  
in Halftone Reproduction using Scanner

**UnitIV:FilmProcessing**

PhotographicFilms  
Structureofphotographicfilms  
Film processing chemicals  
Film processing  
Computerto film technology

## Unit V: Offset Plate Processing

Type of Plates

Facilities and Equipment used in Plate Making department Control

of plate making variables – Quality control aids

Processing steps involved in preparation of PS Plates Processing steps involved in preparation of Wipe-on Plates

Plate making troubles

### **BOOKS FOR REFERENCE:**

1. Graphic Reproduction Photography - J.W. Burden, Focal Press, London. Reproduction
2. Photography for Lithography - GATF. Electronic colour separation - Dr. R.K. Molla,
3. R.K. Printing and Publishing Company, West Virginia, U.S.A. Standardized Lithographic colour printing - PIRA Guide. Colour Separation Techniques - Mills South Worth, Graphic Arts Publishing Co., New York. Reproduction of colour - R.W.G. Hunt, Fountain Press.
4. Graphic Reproduction - Eaglehead Publishing Ltd., Surrey, U.K. Principles of colour reproduction applied to photomechanical reproduction, Colour photography and the ink, paper and other related industries – John Wiley & Sons, U.K. The Lithographers manual - 7<sup>th</sup> Edition - GATF. The Lithographers manual - 9<sup>th</sup> Edition - GATF.

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | M                | L   | L   | H   | M   | M   | H   | H   | L   |
| C2              | H                | H   | L   | M   | M   | H   | M   | L   | M   |
| C3              | H                | M   | M   | M   | L   | M   | H   | M   | H   |
| C4              | M                | L   | L   | L   | L   | L   | H   | M   | H   |
| C5              | M                | M   | L   | L   | M   | M   | H   | H   | M   |

|                                                    |                   |                               |
|----------------------------------------------------|-------------------|-------------------------------|
| <b>PAPER CODE:20UDP09</b>                          | <b>SEMESTER V</b> | <b>CORE IX &amp; CREDIT:4</b> |
| <b>SUBJECT NAME:PRINTING MACHINERY MAINTENANCE</b> |                   |                               |

**Goal:** To make all the students have knowledge about the machine maintaining procedures

**Objective:** Aim to convey detail information about the different maintaining techniques to be followed in a printing press in different stages

**Course Outcome:**

|     |                                                                                       |
|-----|---------------------------------------------------------------------------------------|
| C01 | Students inculcate knowledge on maintenance of machinery and its detail procedures    |
| C02 | Different parts of machinery and its maintenance procedure is thought to the students |
| C03 | Difference between mechanical and electrical elements are made known                  |
| C04 | Lubricating and reconditioning procedures are thought to the students                 |
| C05 | Maintenance of mechanisms are thought to the students                                 |

**Unit I: Maintenance Management**

1.1 -Maintenance–Definition, Objectives, Types of Equipment Maintenance –Planned maintenance and unplanned maintenance.

1.2 - Types of Planned maintenance - Preventive Maintenance, Predictive Maintenance and Scheduled maintenance Merits and demerits. Unplanned maintenance - Breakdown Maintenance or Emergency maintenance - Merits and Demerits. Contract maintenance - Definition - Merits and Demerits.

1.3 -Preventive Maintenance Functions-Planning, scheduling, Repair cycles, Dispatching and Controlling.

1.4 -Safety Precautions and House Keeping–safety precaution to be followed in press area and Five steps of housekeeping (5S method).

**Unit II: Power Transmission**

2.1 -Chain Drives-Introduction, Types of Chains–Roller Chain, Silent Chain, Ewart Chain and Bead Chain, Merits and Demerits of Chain Drives.

2.2 -Belt Drives-Introduction, Types of Belts –Flat belt, Rope belt, Tooth Belt, V belt and Timing Belt, Merits and Demerits of Belt drives.

2.3 -Gear Drives-Introduction, Types of Gears–Spur gear, Helical gear, Bevel gear, Worm gears and Herringbone gear, Merits and Demerits of gear drives.

2.4 -Maintenance and Lubrication of Drive Systems -Chain Drive, Belt Drive and Gear Drive.

2.5 -Direct drive technology–Introduction, Advantages and Application in the printing field.

**Unit III: Mechanical and Electrical Elements**

3.1 -Bearings, Types of Bearings -Sliding bearings and Antifriction bearings –Ball bearings, Needle bearings and Roller bearing. Merits and Demerits.

3.2 -Cams and Follower, Types of Cams and Followers–Disk Cam, Translation Cam, Groove Plate Cam, Cylindrical Cam, Eccentric Cam and Tow Wipe Cam. Advantages of cam and Follower.

3.3 -Springs, Types of springs–Helical Spring, Conical spring, Volute Spring and Torsion Springs and its application.

3.4 - Electrical Elements - Introduction to Contactors and its types, Introduction to Limit Switches and its application, Introduction to over Load Relay Switches and its types, Thermal and Magnetic, Introduction to Sensors and Detectors and its application, Introduction to Electrical Panels.

#### **Unit IV: Lubrication and Reconditioning**

4.1 - Lubrication - Introduction, Advantages, Types of Lubricants - Solid, Semisolid and Liquid. Lubrication Schedule, Chart and Paint Marks.

4.2 - Equipment's and Tools used in Erection and Reconditioning - Cranes, Hoists, Spanner, Wrenches, Screwdriver, Spirit level, Dial Indicator with gauge, Feeler gauge, Micrometer and Vernier Calipers, Application.

4.3 - Test Run - Types of test runs - Idle, Performance, Accuracy, Rigidity and Vibration test.

#### **Unit V: Maintenance of Mechanisms**

5.1 - Electrical Maintenance - Introduction to AC and DC motors, Maintenance Checklist for motors, Common problems with Electricity.

5.2 - Pneumatic System Maintenance - Introduction to pneumatic system functioning, Compressor types Reciprocating and Rotary compressor, Application in Printing Field and Check List for pneumatic system maintenance.

5.3 - Hydraulic System Maintenance - Introduction to Hydraulic System, Application in Printing field and Check list for Hydraulic System maintenance.

5.4 - Mechatronics - Introduction and applications in Printing Field.

#### **BOOKS FOR REFERENCE:**

1. H.P. Garg, Industrial maintenance, S. Chand & Company Ltd., Lewis and Tow, Readings in maintenance, Management Cohners Books. A.S. Porter, A manual for Lithographic press operation, Lithographic Training Services. Lithoprinting Ian Faux, Blueprint Publications.
2. Lithographers Manual, Graphic Arts Technology Foundations, U.S.A. Faires, V.M. - Design of machine elements, The Macmillan Co., London. Shirley, Mechanical Engineering Design, McCrawhill. Dobrovalsky et.al., "Machine Elements". MIR Publications.

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | L                | M   | L   | L   | M   | M   | H   | H   | M   |
| C2              | L                | H   | L   | L   | L   | M   | H   | M   | H   |
| C3              | L                | M   | L   | L   | L   | H   | H   | M   | M   |
| C4              | L                | M   | L   | L   | M   | M   | H   | H   | M   |
| C5              | L                | H   | L   | L   | L   | M   | H   | M   | H   |



|                                                |                   |                                   |
|------------------------------------------------|-------------------|-----------------------------------|
| <b>PAPER CODE: 20UDPE01</b>                    | <b>SEMESTER V</b> | <b>ELECTIVE I &amp; CREDIT: 4</b> |
| <b>SUBJECT NAME: PRINTING PRESS MANAGEMENT</b> |                   |                                   |

**Goal:** To make the students know about the management procedures in a printing press.

**Objective:** The subject aims to convey information to the students regarding the accounting and management procedures to be followed in a printing press.

**Course Outcome:**

|     |                                                                                       |
|-----|---------------------------------------------------------------------------------------|
| C01 | Basic knowledge of costing is made known to the students                              |
| C02 | Estimating procedures are thought to the students                                     |
| C03 | Students inculcate knowledge on accounting and its types                              |
| C04 | Difference between market and sales and its importance are made known to the students |
| C05 | Managing principles are made known to the students                                    |

**UNIT I: COSTING**

Meaning and objects of costing, advantages of costing.  
 Methods of costing, classification of costing in printing industry.  
 Variable direct costs, fixed direct costs and fixed indirect costs.  
 Capital cost of machinery equipment, utilization of machineries.  
 Interest on the capital cost of the machines.  
 Depreciation insurance on machinery. Wages of Direct Labour.  
 Direct materials costing. Costing of machine operations. Costing of manual operations.

**UNIT II: ESTIMATING**

Meaning, differentiating costing and estimating. Qualification of an estimator.  
 Responsibilities of an estimator. Reasons for variation in estimating. Forms used in estimating.  
 Factors to be considered while estimating.  
 Procedures for preparing estimates and submitting quotations.  
 The factors, which decide the final cost of printed products.  
 Use of Computers in estimating.

**UNIT III: ACCOUNTING (THEORY ONLY)**

Object of bookkeeping  
 Various systems of bookkeeping  
 Difference between Double entry and single entry book-keeping systems. Advantages and disadvantages of double entry book keeping.  
 Meaning of important book-keeping terms.  
 Relationship between book-keeping and accounting  
 Source documents (supporting documents). Branches of accounting.  
 Classification of accounts – Journal, Ledger, Subsidiary book – Cash book and Petty cash book, trial balance.

## **UNIT IV: MARKET AND SALES**

Introduction to marketing and sales.

Marketing department organizational structure. Duties and qualities of salesman.

Sales forecasting factors and their importance. Advertising agencies and their roles.

Structure of advertising to manufacturers, customers and society. Communication in management – definition/meaning, purpose.

General communication process, models of communication. Communication skills – verbal and non-verbal.

Effective communication and its barriers. Essentials of written communication.

4Cs of good communication.

Reply to enquiries, orders and complaints.

## **UNIT V: PRINCIPLES OF MANAGEMENT**

Printing press (organization) plant layout. Principles of layout, plant location, building.

Ergonomics of management – lighting, glare/contrast, climate, safety and noise. General plant safety procedures.

Safety in prepress

departments. Safety in presswork

departments.

Safety in binding, finishing and converting departments. Safety in materials handling.

## **BOOKS FOR REFERENCE:**

1. What the printers should know paper – Lawrence A. Wilson – GATF Press
2. Flexography primer – J. Page Cronch
3. Gravure Primer – Cheryl K. Kasunich
4. Handbook of Print Media – Helmut Kipphan

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | L                | H   | M   | L   | H   | M   | M   | H   | M   |
| C2              | M                | H   | M   | L   | H   | M   | M   | H   | L   |
| C3              | L                | H   | M   | L   | H   | M   | M   | H   | M   |
| C4              | M                | H   | M   | L   | H   | M   | M   | H   | M   |
| C5              | M                | H   | M   | L   | H   | M   | L   | H   | M   |

|                                                   |                   |                                 |
|---------------------------------------------------|-------------------|---------------------------------|
| <b>PAPER CODE:20UDPSB03</b>                       | <b>SEMESTER V</b> | <b>SBEC III &amp; CREDIT: 3</b> |
| <b>SUBJECT NAME: ADVANCED PRINTING TECHNIQUES</b> |                   |                                 |

**Goal:** Deliver knowledge on the advanced printing techniques to the students.

**Objective:** Aim to convey detail knowledge on the advanced and upcoming printing techniques.

**Course Outcome:**

|     |                                                                                               |
|-----|-----------------------------------------------------------------------------------------------|
| C01 | Digital imaging and printing techniques are made known to the students                        |
| C02 | Students inculcate knowledge on the types of non-impact printing techniques                   |
| C03 | Knowledge on security printing and its materials are conveyed to the students                 |
| C04 | Students are thought about the special printing techniques used for unique production methods |
| C05 | Emerging printing processes are made known to the students                                    |

### **Unit I: Digital Printing Technologies**

- 1.1 Digital printing – Definition, Scope and job suitability of Digital printing process.
- 1.2 Basic principle of Computer-to-Film, Computer-to-Plate, Computer-to-Press and Computer-to-Print.
- 1.3 Computer-to-Press – Working principle of Direct Imaging with once imageable master and Working principle of Direct Imaging with re-imageable master.
- 1.4 Computer-to-Print – Working principle

### **Unit II: Non-Impact Printing Technologies**

- 2.1 Basic principle of Non-impact printing technology, Flow chart of NIP technology and Applications of NIP technology.
- 2.2 Basic principle of Electrophotography – Imaging, Inking, Toner transfer, Toner fixing and cleaning.
- 2.3 Basic principle of Ionography – Imaging, Developing, Toner transfer, Toner fixing, cleaning and erasing.
- 2.4 Basic principle of Thermography – Direct thermography, Transfer thermography, working principle of thermal transfer and thermal sublimation printing systems and Properties of ink tonner for Thermography.
- 2.5 Basic principle of Ink jet printing - Continuous ink jet and Drop on demand ink jet, working principles of continuous ink jet and drop on demand ink jet and Properties of ink tonner for ink jet printing.

### **Unit III: Security Printing Features and Materials**

- 3.1 Security design features - Pantograph screens, Void pantograph Screen, ODT - optical deterrent technology, Guilloches, Warning bands, Code safe, High resolution graphics and Padlock icon - Application of security printing.
- 3.2 Security papers – Safety paper, Chemical reactive paper, Special papers, Watermark paper and Copy evident paper.
- 3.3 Security threads - Metalized thread, Windowed thread, Holographic windowed thread, Microtext, Clear text and Thermo text.
- 3.4 Watermark, Classification of watermark - Linedrawing watermark, shaded watermark and Digital watermark.
- 3.5 Security inks – Trademark colours, Colour changing ink, Magnetic ink, Copy protection ink, Erasable ink, Fugitive ink, Pen reactive ink, Heat reactive ink, Coin reactive inks, Migrating ink, Bleeding inks, Florescent ink, Metallic ink and UV ink.

#### **UnitIV:SpecialPrintingTechnologies**

4.1 BasicprinciplesofhybridprintingsystemandApplicationofHybridprintingsystems.

4.2 Basicprinciplesofhologrammakingprocess,Componentsofhologrammakingsystem-laser, lenses, beam splitter, mirrors, holographic film and Process steps of hologram makingsystem.

4.3 Basicprinciplesoflenticularprintingprocess.

4.4 Basicprinciplesofwaterlessoffsetprinting,Platestructureofwaterlessoffsetprinting,Merits and Demerits of waterless offset printing.

#### **UnitV:EmergingPrintingProcess**

5.1 BasicprinciplesofE-book,ListofvariousmanufacturesofE-book,ApplicationofE-book,Basic principles of E-ink and Concept of E-ink with microcapsules filled with a coloring agent.

5.2 Basicprinciplesof“Gyricon”E-paper,TypesofdisplayofE-paper,ApplicationofE-paper, Concepts of rewritable paper, Imaging and erasing processes for rewritable paper.

5.3 Introductionabout3Dprinting,Typesof3Dprintingdirectandbinder3Dprinting,Steps involved in 3D printing process and Application of 3D printing

#### **BOOKSFORREFERENCE:**

1. Printingonadigitalworld-DaridBergsland,DelmarPublishInc.,NewYork1997.
2. GutenberggoesDigital-MichaelLimburg,Blueprintpublication,London.
3. A hand book for Printing and Packaging Technology - BishwanathChakravarthy, Galgothia Publications,NewDelhi.Output Hardcopydevices-Robertc.Durbee(Ed,)AcademicPressInc.
4. Whattheprintersshouldknowaboutpaper -W.H.Bureau,GATF.ThePrintingInkManual -R.H. Lench and R.J.Pierce (Ed) 5th Ed., Blue print. Non Impact Printing - Gerhard A. Nothmann,
5. GATF.TheImpactPrintingforthecommercialprinter-technoEconomicForecast(1988-1993)

| Course Outcomes | ProgramOutcomes |     |     |     |     |     |     |     |     |
|-----------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01             | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | M               | H   | M   | L   | H   | M   | H   | M   | M   |
| C2              | L               | M   | L   | L   | M   | M   | H   | M   | H   |
| C3              | L               | M   | M   | L   | M   | M   | H   | H   | M   |
| C4              | L               | M   | H   | L   | M   | L   | M   | L   | M   |
| C5              | L               | M   | L   | L   | M   | M   | H   | M   | H   |

|                                       |                    |                           |
|---------------------------------------|--------------------|---------------------------|
| <b>PAPER CODE:20UDP10</b>             | <b>SEMESTER VI</b> | <b>COREX&amp;CREDIT:4</b> |
| <b>SUBJECT NAME: DIGITAL PRINTING</b> |                    |                           |

**Goal:** To make the students know about the latest digital printing techniques.

**Objective:** Convey information regarding the digital imaging techniques and colour management in different stages of printing.

**Course Outcome:**

|     |                                                                                                      |
|-----|------------------------------------------------------------------------------------------------------|
| C01 | Students inculcate knowledge on the workflow in digital pre-press stage                              |
| C02 | Deliver knowledge to the students regarding the digital photography and the digital proofing methods |
| C03 | Students gather knowledge on digital image assembly using different data formats                     |
| C04 | Colour calibration techniques are made known to the students                                         |
| C05 | Direct imaging from Computer to Plate techniques are thought to the students                         |

**Unit I: Digital Prepress – Introduction**

- 1.1 - Digital Description of the Printed page - Elements of Digital Page – Integration of Text, Images, Graphics, Layout and Prepress checklist.
- 1.2 - Dot Shape – Round, square, elliptical and composite shapes, Amplitude Modulation/Frequency Modulation Screening Difference between AM and FM screening and Benefits of FM screening.
- 1.3 - Input and Output Resolution - Scanning Frequency, Picture element and scanning frequency formula. Image - dependent Effects and Corrections – Spreads and Chokes, Trapping, Moire and interference of dot pattern.
- 1.4 - Under Colour Removal, Grey Component Replacement, and Unsharp Masking Techniques - Advantages of UCR, GCR & USM. Difference between UCR and GCR. Chromatic composition and achromatic composition.

**Unit II: Digital Photography & Digital Proofing**

- 2.1 - Image capturing with Digital camera – Special features of Digital Camera – Tone Value Quantization, Focal length of lens and Aspect Ratio and Link up to a Computer.
- 2.2 - Charge Coupled Device and Complementary Metal Oxide Semiconductor - Definition and difference between CCD and CMOS.
- 2.3 - Scanner designs and models, Flatbed Scanners - Diagram, functions of scanners and advantages of flatbed scanner.
- 2.4 - Digitizing and Re-digitizing - Various Re-digitizing Techniques Copy dot, De-screening and mixed mode. Digital Proofs and Press Proofs.

**Unit III: Digital Image Assembly and Data Formats**

- 3.1 - Page Assembly and Imposition - Digital assembly techniques of CTF and CTP. Imposition - Image register and alignment, Imposition plans - Sheetwise, Work and turn and Work and tumble.
- 3.2 - Full Sheet Output, Full sheet production in the workflow, Imposition through Software and Full sheet production workflow.
- 3.3 - Imposition Workflows - Types of Imposition programs, Imposition sheet, demand on Imposition programs and Imposition workflows and considerations for impositions.
- 3.4 - Raster Image Processor (RIP) - Workflow diagram – Interpreter, Renderer, Rasterizer and Bitmap. File Formats Postscript, TIFF, JPEG, GIF, LZW, EPS, PDF, PPF, 1 bit TIFF and JDF.

3.5 -DataFormats -Bitmap&Vector,Applicationsofstoragemedia-Datadistribution,Archiving and Backup or transport.

**UnitIV:ColourManagement**

4.1 - Definition of Colour, Colour Management and Needs - Targets of PrintColour Management, CIEChromaticityDiagram -CIE LabValues –Spectrophotometry,SpectralReflectancecurvesof colours. Colour perception and colorimetric description of colour.

4.2 -Colourmeasuringinstruments,ColorimetryandDensitometry–Densitometer, Spectrophotometer diagrams and functions.

4.3 - Profiles for Monitor, Scanner and Printer – International Colour Consortium - ICC Profiles, generatingICCprofilesformonitor,ScannerandPrinter,Device-independentCIELABcolourspace, rendering intents – Perceptual, Relative, Absolute and saturation.

4.4 -ImageReproductionProcessusingColourManagementImplementingColourManagement, Diagram for Colour perception and the colorimetric description of colour and 3cs’ of colourmanagement.

**UnitV:ComputertoPlatesystems**

5.1 - Types of Computer to Plate Systems – Image register and Alignment, Types of CTPs, AdvantageofCTP,ComponentsofComputertoPlatesystem,DifferentConfigurationofCTPs Flatbed, Internal Drum and External Drum.

5.2 -Workflows-PDFandJDF-PortableDocumentFormat,JobDefinitionFormatandtheir advantages. Preflighting techniques, the process and preflighting checks.

5.3 - Computer to Plate workflow, Types of Lasers – UV, Violet, Thermal and Computer to plate technologyforflexography, gravure and screen printingprocesses. 5.4 - Printingplates for Digital Imaging-TypesofPlatesusedinCTP-Silverhalideplates,Photopolymerplates,Thermalplates, Inkjet plates - Automatic plate processor diagram and its functions.

**BOOKSFORREFERENCE:**

1. Printingonadigitalworld-DaridBergsland,DelmarPublishInc.,NewYork1997.
2. GutenberggoesDigital -MichaelLimburg,Blueprintpublication,London.
3. TheImpactPrintingforthecommercialprinter-technoEconomicForecast(1988-1993)-GATF.

| Course Outcomes | ProgramOutcomes |     |     |     |     |     |     |     |     |
|-----------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01             | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | H               | M   | M   | L   | M   | M   | H   | H   | L   |
| C2              | H               | H   | H   | L   | H   | M   | M   | L   | L   |
| C3              | H               | L   | L   | L   | M   | M   | H   | M   | L   |
| C4              | H               | M   | L   | L   | M   | M   | M   | L   | L   |
| C5              | M               | M   | M   | L   | M   | M   | H   | L   | L   |

|                                                |                    |                               |
|------------------------------------------------|--------------------|-------------------------------|
| <b>PAPER CODE:20UDP11</b>                      | <b>SEMESTER VI</b> | <b>CORE XI &amp; CREDIT:4</b> |
| <b>SUBJECT NAME:PRINT FINISHING OPERATIONS</b> |                    |                               |

**Goal:** Students will inculcate knowledge on the post-press stage in printing process.

**Objective:** To convey information regarding the binding and packaging techniques which was carried out after the printing stage.

**Course Outcome:**

|     |                                                                                      |
|-----|--------------------------------------------------------------------------------------|
| C01 | Print finishing operations and the materials used will be known to the students      |
| C02 | Trimming operations and different packaging techniques are fed to the students       |
| C03 | Different types of binding procedures are made known to the students                 |
| C04 | Students inculcate knowledge on different packaging wrappers                         |
| C05 | Content regarding machines used in binding and packaging are thought to the students |

**Unit I:**

- 1.1 - Brief Introduction to Print Finishing.
- 1.2 - Lamination and Varnishing.
- 1.3 - Classification and Function of Packaging.
- 1.4 - Types of Cartons and Die making process.
- 1.5 - Materials Used in Binding and Packaging.

**Unit II:**

- 2.1 - Cutting, Trimming, Creasing, Gathering.
- 2.2 - Collating, Perforating, Numbering, Headband, Edge Decoration
- 2.3 - Factors influencing the design of a package
- 2.4 - Introduction to Food packaging, Aseptic Packaging.
- 2.5 - Flexible pouch forming.

**Unit III:**

- 3.1 - Stitching and types.
- 3.2 - Sewing and types.
- 3.3 - Loose Leaf Binding, Spiral Binding and Comb Binding.
- 3.4 - Perfect Binding, clamping station, milling station, gluing station, nipping station and delivery station.
- 3.5 - Case Binding - preparation of case and casing-in.

**Unit IV:**

- 4.1 - Closures - Screw cap, Lug cap, Roll on, Crown Cap, Child resistant and Tamper evident Closure.
- 4.2 - Dispensing devices - Snip-top, Dial disc, Diptube, Brush applicator, Shakersifter and push-pull type.
- 4.3 - Cushioning Materials, Types - Resilient, Non-resilient and Space fillers.
- 4.4 - Types of Strapping and Sealing tapes.
- 4.5 - Shrink-Wrapping, Sleeve wrap and Envelope wrap.
- 4.6 - Skin Packaging, Blister Packaging, Strip Packaging, Stretch Wrapping.
- 4.7 - Introduction to RFID, QR Code and Barcode, applications in packaging.

**UnitV:**

5.1 - Guillotinemachines, Trimmers, Folding machines.

5.2 - Wire-stitchingmachine. Threadstitchingmachine. Sewingmachines. Gatheringmachines. Book back gluing machine. Rounding and backing machine. Back lining machine. Case making machine. Back forming machine. Pressing machine. Perfect binding machine. Laminating machine. Wrapping machine.

5.3 - Thermo Forming machine, Shrink wrap, skin pack, Blister pack, etc. Strip packaging, Shrink packaging, Blister Packaging, Skinpackaging, and stretch wrapping. Plastic corrugated boxes, lined cartons. Barcode-types of Barcodes. Metal converting machine. Machines used in making caps and closures.

**BOOKS FOR REFERENCE:**

1. Introduction to Printing and Finishing – Hugh M S peris
2. The print Production Manual – J. Peacock, C. Berril and M. Barnard
3. Guarding of folding boxgluers - British Printing Industries federation.

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | L                | H   | M   | L   | M   | L   | M   | M   | H   |
| C2              | L                | M   | L   | L   | L   | M   | L   | M   | H   |
| C3              | M                | H   | L   | L   | M   | L   | M   | H   | H   |
| C4              | L                | M   | L   | L   | L   | M   | L   | M   | H   |
| C5              | M                | H   | L   | L   | H   | H   | L   | M   | H   |



|                                        |                   |                                     |
|----------------------------------------|-------------------|-------------------------------------|
| <b>PAPERCODE:20UDPP04</b>              | <b>SEMESTERVI</b> | <b>COREPRACTICALIV&amp;CREDIT:4</b> |
| <b>SUBJECTNAME:BINDINGANDFINISHING</b> |                   |                                     |

**Goal:** To create self-employment options among the students.

**Objective:** Aim to give hands-on training regarding different binding and finishing techniques.

**Course Outcome:**

|     |                                                                   |
|-----|-------------------------------------------------------------------|
| C01 | Different binding equipment's are made known to the students      |
| C02 | Students tend to know the different binding materials used        |
| C03 | Different types of binding methods are well known to the students |
| C04 | Different indexing methods are also made known to the students    |
| C05 | Students gathered knowledge on edged decoration and marbling      |

### CONTENTS

1. Study of equipments, tools and materials in binding department.
2. Different styles of Endpaper.
3. Styles of Sewing.
4. Styles of Binding.
  - 4.1 Quarter bound cut flush and turned in with squares.
  - 4.2 Half bound conventional and modern.
  - 4.3 Full bound.
  - 4.4 Case making.
  - 4.5 Account book binding.
5. Indexing.
  - 5.1 One letter index.
  - 5.2 Two letter index.
  - 5.3 Vowel index.
6. Edged decoration and marbling.

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | L                | M   | L   | L   | M   | M   | L   | H   | H   |
| C2              | M                | M   | M   | L   | M   | L   | M   | M   | H   |
| C3              | L                | H   | L   | M   | L   | M   | L   | L   | H   |
| C4              | M                | H   | M   | L   | L   | L   | M   | H   | H   |
| C5              | L                | H   | L   | M   | L   | M   | L   | M   | H   |

|                                    |                   |                                    |
|------------------------------------|-------------------|------------------------------------|
| <b>PAPERCODE:20UDPP05</b>          | <b>SEMESTERVI</b> | <b>COREPRACTICALV&amp;CREDIT:4</b> |
| <b>SUBJECTNAME:IMAGEPROCESSING</b> |                   |                                    |

**Goal:** Todelivercompleteknowledgeondigitalimage processingtothestudents.

**Objective:** Input,processingandoutputtechniquesinhandlingadigitalimagestagesare fed to the students.

**CourseOutcome:**

|     |                                                                                              |
|-----|----------------------------------------------------------------------------------------------|
| C01 | Digitalcamerahandlingtechniquesaremadeknowntothe students                                    |
| C02 | Studentswillgetknowledgeonusingscannersasanimageinputdevice                                  |
| C03 | Colourcorrection,blackandwhitetocolourimageconversiontechniquesare delivered to the students |
| C04 | Colour conversion methodologyarepractisedbythe students                                      |
| C05 | Printingplatemakingprocessarelearnt bythestudents                                            |

**CONTENTS**

1. ImagecapturingusingaDigital Camera
2. ScanningaLineOriginalusingFlatbedScanner
3. Scanningacontinuoustoneoriginalusingflatbed scanner
4. ScanningtextmatterusingOpticalCharacterRecognition (OCR)
5. ColourCorrectionsofscannedimage
6. ConvertBlackandwhite photographtocolour photograph
7. Enhancementoflowkeyoriginals
8. ConvertthegivengraphicstoasafecolourgamutCMYKtoRGB/RGBto CMYK
9. Performingchannelseparation
10. PreparationofPre-sensitizedplates/Wipe-onPlates.

| Course Outcomes | ProgramOutcomes |     |     |     |     |     |     |     |     |
|-----------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01             | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | M               | H   | H   | M   | M   | M   | L   | M   | L   |
| C2              | H               | H   | M   | M   | M   | M   | L   | L   | M   |
| C3              | H               | H   | L   | M   | M   | H   | M   | M   | L   |
| C4              | H               | H   | M   | M   | M   | M   | L   | L   | M   |
| C5              | H               | H   | L   | M   | M   | H   | M   | M   | L   |

|                                |                   |                            |
|--------------------------------|-------------------|----------------------------|
| <b>PAPERCODE:20UDPSB04</b>     | <b>SEMESTERVI</b> | <b>SBECIV&amp;CREDIT:3</b> |
| <b>SUBJECTNAME:E-MARKETING</b> |                   |                            |

**Goal:** TodeliverdetailinformationabouttheE-Marketingtechniques tothestudents.

**Objective:** Aimstocoveyknowledgeregardingtheusageofinternetrelatedtobusiness and marketing.

**CourseOutcome:**

|     |                                                                        |
|-----|------------------------------------------------------------------------|
| C01 | Studentsinculcateknowledgeregardingbasicinternetusage                  |
| C02 | Componentsandfunctionsof E-Marketingwasmadeknowntothestudents          |
| C03 | StrategiesofDigitalMarketingaremadeknowntothestudents                  |
| C04 | TypesofE-Marketingaremadeknowntothestudents                            |
| C05 | Studentswillgatherdetailinformationregardingthebrandingofdigitalmedia. |

**UnitI:**

Internet: Concept & evaluation, Features of Internet: email, WWW, ftp, telnet, newsgroup& video conferencing; Intranet & Extranet, ISDN, TCP/IP, Limitation of internet, Hardware & software requirement of Internet.

**UnitII:**

E-Marketing: BusinesstoBusiness(B2B), Businesstocustomer(B2C)e-commerce; OnlineSales force, On line Service and Support; EDI: Functions & components.

**UnitIII:**

DigitalMarketingStrategy,BuildingblocksofDigitalMarketingStrategy,

**UnitIV:**

Types of E-Marketing: Search Advertisement, Online Advertisement, Affiliate Marketing, Video Marketing. Types of E-Marketing: Social Media Channel, E-Mail Marketing, Mobile Marketing.

**UnitV:**

Branding on Digital Media: Audience research and engagement in global environment, Building brand on digital media, StoryTelling and user generated content on digital media network.

**BOOKS FOR REFERENCE:**

1. Frontiers of E-Commerce Ravi Kalkota, TMH
2. O'Brien J. Management Information System, TMH
3. eMarketing: The essential guide to marketing in a digital world - Fifth Edition By Rob Stokes and the Minds of Quirk

| Course Outcomes | Program Outcomes |     |     |     |     |     |     |     |     |
|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01              | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | M                | H   | H   | L   | M   | H   | L   | M   | L   |
| C2              | L                | H   | M   | L   | H   | M   | L   | L   | L   |
| C3              | M                | M   | H   | M   | H   | M   | M   | M   | L   |
| C4              | H                | H   | M   | L   | M   | H   | L   | M   | L   |
| C5              | M                | M   | H   | L   | M   | M   | M   | L   | L   |

|                                                       |                   |                                      |
|-------------------------------------------------------|-------------------|--------------------------------------|
| <b>PAPERCODE:20UDPP06</b>                             | <b>SEMESTERVI</b> | <b>COREPRACTICALVI&amp;CREDIT: 4</b> |
| <b>SUBJECTNAME:PRACTICALVI–DIGTIALPRINTPRODUCTION</b> |                   |                                      |

**Goal:** Tomakeeverystudenttolearndifferentstagesof printingandproducea qualityoutput.

**Objective:** Aimstomakeeverystudenttoundergoallthestagesinprintingto getallthe exercise done.

**CourseOutcome:**

|     |                                                                       |
|-----|-----------------------------------------------------------------------|
| C01 | Graphicsdesigningskillofthestudentwillbeknown                         |
| C02 | Outputusingdifferentprintingtechniqueswillbegivenbythestudents        |
| C03 | Studentswillcometoknowaboutthedifferentprintingpressesbytheirrown     |
| C04 | Basicmaterialrequirement foraprintingjobwillbemadeknowntothe students |
| C05 | Estimatingandprintingcostwillbeknowntothestudents                     |

Everystudentshouldcreateasetofprofessionalbusinessstationerycollateralsetforwhichincludes the following

1. Banner
2. Pamphlet
3. LetterHead
4. Envelop
5. BusinessCard
6. Pen
7. Diary
8. IDcard
9. Wall clock
10. Phonecase
11. Paperbag
12. CoffeeMug
13. CDcover&sticker
14. Dangler
15. Folder

| Course Outcomes | ProgramOutcomes |     |     |     |     |     |     |     |     |
|-----------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|
|                 | P01             | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 |
| C1              | H               | H   | M   | M   | H   | H   | M   | L   | L   |
| C2              | L               | H   | M   | L   | M   | M   | H   | H   | M   |
| C3              | M               | M   | M   | L   | M   | M   | H   | M   | H   |
| C4              | L               | H   | M   | L   | H   | M   | M   | H   | H   |
| C5              | L               | H   | M   | L   | H   | L   | M   | H   | M   |