KAKARAPARTI BHAVANARAYANA COLLEGE

(AUTONOMOUS)

Kothapeta, Vijayawada – 520 001

A College with Potential for Excellence (CPE)

All India 92nd Rank in NIRF by MHRD (2017)

DIPLOMA IN

PRINTING TECHNOLOGY

UGC SCHEME OF COMMUNITY COLLEGES

SYLLABUS

I-SEMESTER

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

UGC Scheme of Community Colleges

DIPLOMA IN PRINTING TECHNOLOGY (ONE YEAR COURSE)

CURRICULUM

SEMESTER- I

S.No.	Name of the subject
1	English-I DPT-ENG-511A
2	Printing Systems DPT-PS-512
3	Printing Materials DPT-PM513
4	Image Processing DPT-IP-**514A** **(WEF:2018-19)**
5	Flexo, Gravure &Screen Printing DPT-FGP-515
6	Book Binding &Finishing DPT-BBF-516
7	Computer Fundamentals Lab DPT-CFL-517(P)
8	Book Binding &finishing Lab DPT-BBFL-518(P)
9	Sheet fed offset Lab DPT-BBFL-518(P)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

UGC Scheme of Community Colleges

DIPLOMA IN PRINTING TECHNOLOGY

COURSES FOR FIRST SEMESTER			
Course Code	Course Title	Hours	Credit
General Education			
DPT-ENG-511 A	English	30Hrs	2
DPT-CFL-517(P)	Computer Fundamental Lab	60Hrs	4
Skill Component			
DPT-PS-512	Printing Systems	45Hrs	3
DPT-PM-513	Printing Materials	45Hrs	3
DPT-IP-514A	Image Processing	60Hrs	4
DPT-FGP-515	Flexo, Gravuru& Screen Printing	45Hrs	3
DPT-BBF-516	Book Binding & Finishing (Post Printing Operations)	45Hrs	3
Job Training & Lab			
DPT-SFO-L-519(P)	Sheet fed offset Lab	75Hrs	5
DPT-BBFL-518(P)	Book Binding & Finishing Lab	45Hrs	3
			Total Credits= 30
❖ FIELD VISIT TO INDUSTRY			

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

UGC Scheme of Community Colleges

DIPLOMA IN PRINTING TECHNOLOGY

SEMESTER –I

ENGLISH-I

Subject Title : English-I

Subject Code **:** DPT-ENG-511A

Periods per Week **:** 03

Periods per Semester **:** 45

Credits **:** **02**

S No	**Major Topics**	**No. of Periods**	**Weightage of Marks**
1	Vocabulary	**05**	15
2	Grammar	**17**	35
3	Writing	**8**	25
Total		**30**	**75**

Class	Semester	Title of The Paper:	Paper Code	W.E.F
Printing & Technology	I	English	DPT-ENG-SIIA	2018-19

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
30 hrs	3		3 hrs	25	75	02

COURSE OBJECTIVES:

- The course will make the students learn various grammatical structures like identifying the use of NOUNS, PROUNS.
- Identify and use of Present, Past and future tense.
- Identify and use adjectives, adverbs, prepositions and state the basic construction of sentences.
- The students will learn to frame questions to elicit information.

COURSE OUTCOMES:

- On completion of this course, students will have the knowledge and skill to.
- Extend their vocabulary in the direction of their future needs.
- Locate words, learn spellings, understand meanings
- Pronouns words intelligently.
- Final synonyms and antonyms

SEMESTER I

SYLLABUS

1. Extend their vocabulary in the direction of their future needs

1.1 Locate words, learn spellings, understand meanings

1.2 Pronounce words intelligibly

1.3 Find synonyms and antonyms

2. Learn various grammatical structures

2.1 Identify and use nouns

2.2 Identify and use pronouns

2.3 Use the present tense

2.4 Use the past tense

2.5 Use the future tense

2.6 Identify and use adjectives

2.7 Identify and use adverbs

2.8 Use prepositions

2.9 State basic sentence structures

2.10 Construct different types of sentences

2.11 Frame questions to elicit information

2.12 Frame questions for conformation

2.13 Use active voice

2.14 Use passive voice

2.15 Use direct speech

2.16 Use indirect speech

2.17 Identify and correct errors

3. Practice spoken communication suited to various situations.

3.1 Use appropriate expressions to greet and take leave

3.2 Use proper expressions to make requests

3.3 Use apt expressions for asking and giving directions

3.4 Use suitable expressions to seek and offer suggestions

DEPARTMENT OF PRINTING TECHNOLOGY
MODEL QUESTION PAPER
SEMESTER - I

Class: DIPLOMA IN PRINTING TECHNOLOGY
Subject: English -I **Marks: 75**
Sub Code: DPT-ENG -511 A **Time: 3Hrs**

SECTION A

I. Write the correct spelling of the given words: 10X1/2=5

1. Comitee
2. Gaurd
3. Desine
4. Occassion
5. Recieve
6. Attatch
7. Intencity
8. Admition
9. Corespondence
10. Magnetizm

II. **A**. Choose the correct synonym to the words given below: 5X1=5

1. Scold
   a. Cry b. smile c. chide d. love
2. Praise
   a. Laud b. criticise c. happy d. pray
3. Heavy
   a. Light b. high c. hard d. large
4. Mean
   a. Lean b. average c. meant d. mouse
5. Row
   a. Quarrel b. enjoy c. tickle d. wrestle

B. Choose the correct antonym to the words given below: 5X1=5

1. Peaceful
   a. Violent b. calm c. hesitant d. fearful
2. Confident
   a. Bold b. angry c. diffident d. independent
3. Intelligent
   a. Bright b. dull c. clever d. imaginary
4. Success

a. Failure b. succeed c. victory d. sadness

5. Love
   a. Admire b. adore c. loathe d. sweetheart

SECTION B

III. Write down the parts of speech of the underlined words: 10X1=10

1. She slowly turned the <u>doorknob</u>.
2. My neighbour's dog is very <u>ferocious</u>.
3. That car is not <u>mine</u>.
4. Their <u>parents</u> live in Hyderabad.
5. She <u>laughed</u> at him.
6. Sit <u>beside</u> me.
7. <u>Wow</u>! Look at that beautiful car.
8. Have you passed <u>or</u> failed?
9. He <u>has</u> a melodious voice.
10. He prepared well, <u>yet</u> he could not succeed.

IV. Change the given words into nouns: 10x1=10

1. Dark
2. Anonymous
3. Greet
4. Teach
5. Arrogant
6. Proud
7. Mysterious
8. Invade
9. Argue
10. Hard

SECTION C

V. Write down the three types of sentences and give examples for each. 5X1=5

VI. Change the given sentences as directed. 5X2=10

a. He sold the house that belonged to his father. (Change into a simple sentence)
b. He confessed his guilt. (Change into a complex sentence)
c. The teacher punished the boy for his disobedience. (Change into a compound sentence)
d. We can prove that the earth is round. (Change into a compound sentence)

e. He aimed at winning the prize and worked hard. (Change into a complex sentence)

SECTION D

VII. Change the following sentences into interrogative sentences 5X1=5

a. He lives at Vidyadharapuram, Vijayawada.
b. I have been waiting in the bus stop for hours.
c. No, I don't have any objection.
d. I will tell him when I meet him.
e. Yes, she came to meet you.

VIII. Change the following sentences into passive voice. 5X1=5

a. He lays roads.
b. The mechanic repaired my car.
c. Samantha is writing a letter.
d. I will finish the work by 5.
e. Many tourists have visited that place.

IX. Change the following sentences into reported speech 5X1=5

a. "Sam studied in Kendriya Vidyalaya school", said Sekhar.
b. "Don't do it!" said my teacher.
c. "Your uncle will come home tomorrow", said my mother.
d. "Have you prepared well for the exam?" said my teacher.
e. "I cannot finish the project by tomorrow", said my friend.

X. Identify the mistakes and rewrite the following sentences 10X1=10

a. Every teacher in my college are good.
b. Keep the secret just between you and I.
c. She did not went to college yesterday.
d. I am waiting her since morning.
e. She is success in her work.
f. We studied during four hours.
g. Me and Johnny live here.
h. I have visited Araku valley last summer.
i. He wants to write my autobiography.
j. The climate of India is hotter than England.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

UGC Scheme of Community Colleges

DIPLOMA IN PRINTING TECHNOLOGY (ONE YEAR COURSE)

PRINTING SYSTEMS

Subject Title : Printing Systems
Subject Code : DPT-PS-512

Periods per Week : 03

Periods per semester : 45

Credits : 03

TIME SCHEDULE

UNIT	MAJOR TOPICS	No. of Periods	Weightage of Marks
1.	Different printing methods	9	20
2.	Image carriers	9	15
3.	Impression and ink transfer methods	9	20
4	Proofing methods	9	10
5	Suitability of jobs for various printing processes	9	10
	TOTAL	**45**	**75**

Class:	Semester:	Title of The Paper:	Paper Code:	W.E.F
Printing & Technology	I	Printing System	DPT-PS-512	2018-19

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
45	03			25	75	03

COURSE OBJECTIVES:

The objectives to make the student understand

- Different printing methods
- Different Image carriers
- Different methods of impressions and ink transfer.
- To know & understand different proofing methods.
- Suitability of jobs for various printing process

COURSE OUTCOMES:

On completion of this course, students will have the knowledge and skills to

1. Identify the Characterstics of letter press printing, offset, Granure, Funography, screen printing and other printing systoms.
2. Aquitance with surface preparation for offset printing like albumin plates, wipe on plates dispatch plates etc.
3. Understand proofing methods like soft proof, proof from computer monitors of different resolutions from low end to high end.
4. Impression and like transfer methods in letter press printing machine, offset, grorure, or flexography printing.

5. Understanding the suitability of different printing jobs for various printing processes like letter press, offset, digital printing etc.

COURSE CONTENTS

UNIT 1 Different printing methods

Principles - Characteristics of -Letter Press Printing - Offset Printing - Gravure Printing - Flexography Printing- Other processes – Screen Printing – thermography - Digital printing.

UNIT 2 Image carriers

Introduction to Surface preparation for Offset Printing – Albumin plates- wipe on Plates-Deep etch plates - Presensitised plates-Gravure Printing Process- Introduction to Chemical etching-Electronic engraving - laser engraving-Flexography Process – Rubber plates-Polymer Plates-Screen Printing – Direct coating of screen-Chromolin and five-star film methods-Tools and equipments and materials used for surface- preparation of above processes-Stripping techniques-Imposition Schemes.

UNIT 3 Impression and ink transfer methods

Letter press printing machines-Offset and lithographic machines-Gravure printing-Ink transfer from gravure cylinder-Role of impression roll-Flexography printing - role of anilox roller- Ink transfer from flexo plate-Screen Printing - porous nature of screen-Method of squeezing ink through image areas.

UNIT 4 Proofing methods

Soft Proofing - Proof from computer monitors of different resolutions from low end to high end - remote proofing - Hard proofing- inkjet proofing-thermal proofing-dye sublimation proofing- colour proofing- press proofs.

UNIT 5 Suitability of jobs for various printing processes

Suitability of jobs for letterpress printing process- Suitability of jobs for offset printing-Suitability of jobs for gravure printing-Suitability of jobs for flexo printing-Suitability of jobs for Screen Printing-Suitability of jobs for Digital printing

REFERENCE BOOKS: 1. Lithographers manual- GATF- 9th edition

1. Printing technology – J. Michael Adams, David.

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MODEL QUESTION PAPER

DIPLOMA IN PRINTING TECHNOLOGY

I SEMESTER END EXAMINATIONS

Class	: DIPLOMA IN PRINTING TECHNOLOGY	Max Marks	: 75
Subject	: PRINTING TECHNOLOGY	Pass Mark	: 30
Title of the paper	: Printing Systems	Time	:
Paper Code	: DPT-PS-512	Duration	: 3Hrs
Date	:		

SECTION – A

Answer ALL the questions: 5X10=50M

1. a) Explain the quality control in printing right from the job is received till it is delivered to the customer.

(OR)

b) State in detail the working principles of two colour and perfecting machines.

2.a) Explain the different types of feeding and delivery systems.

(OR)

b) State the functioning of automatic feeders with regard to its advantages and disadvantages.

3. a) How is impression imparted on a flexography machine.? Explain

(OR)

b) Explain the procedure of ink transfer in gravure machine.

4.a) What do you know about blanket cylinder and procedure of blanket fixing?

(OR)

b) Mention about Multi colour printing in detail.

5.a) Mention the unsafe acts which is dangerous to the printer and unsafe conditions in a press room.

(OR)

b) State the importance of production planning and control in a printing press.

SECTION -B

Answer any FIVE questions from the following: 5X5=25M

6) Define printing and name its inventor.

7) Why is lithography reffered as off set?

8) What is graining and name the two types of graining.

9) What is stripping?

10) How is ink transferred on an offset machine?

11) What is press proof and why it is expensive?

12) How do you prevent set – off ?

13) Describe roller setting

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

UGC Scheme of Community Colleges

DIPLOMA IN PRINTING TECHNOLOGY (ONE YEAR COURSE)

PRINTING MATERIALS

Subject title : **Printing Materials**

Subject code : **DPT-PM-513**

Periods per week : **03**
Total periods per Semester : **45**

Credits : **03**

TIME SCHEDULE

S.No	Major Topics	Periods	Weightage of Marks
1.	Materials used for graphic reproduction	9	15
2.	Print-from Materials (Image Carriers)	10	15
3.	Print-on Materials (Substrates)	8	15
4.	Print-with Materials (Inks and other coatings)	10	20
5.	Print-finish Materials (Binding materials)	8	10
Total		**45**	**75**

Class	Semester	Title of The Paper	Paper Code	W.E.F
Printing & Technology	I	Printing Materials	DPT-MP-513	2018-19

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
45	03			27	75	03

COURSE OBJECTIVES:

The objective is make the students understand

1. Different light sensitive materials used in pre press and print from surface like letter press and furography.
2. Metals used for gravure and offset surface preparation.
3. Materials used for screen process.
4. Substratcs used for print-on-purposes for ….. printing processes
5. Understand about various adhesives, securing and covering materials used for binding.

COURSE OUTCOMES:

On completion of the course the students will attain the knowledge

1. To use materials used for graphic reproduction.
2. Proper methods of using the print on materials for image carriers.
3. Using different substrates (materials) for printing like paper, board, plastic, tin sheet etc.
4. Methods of suing print with materials like inks, composition of inks, methods of ink drying etc.
5. To provide the necessary information to the inks while ordering the ink.

Unit I **Materials used for graphic reproduction**

- Light sensitive materials in graphic reproduction
- Photographic light sensitive materials and its classification
- Classification of silver based light sensitive materials
- Silver less photographic materials
- Other light sensitive materials in graphic reproduction
- Physical structure of photographic film
- Film speed

Unit II **Print-from Materials (Image Carriers)**

- Metals and materials used for relief process – Letterpress and Flexography – UV Plates for Letterpress – Rubber and polymer plates for Flexo
- Metals and materials used for offset process – Aluminum, copper, zinc photopolymer, polyester plates
- Metals used for gravure cylinders – Copper, Chromium and Nickel
- Materials used for Screen Printing – Nylon, silk, metal mesh

Unit-III **Print-on Materials (Substrates)**

- Paper, board, plastics, tin sheets for Offset
- Raw materials used for paper manufacturing
- Choice of appropriate paper for different printing processes
- Standardization of paper and Indian standard paper sizes
- Classification of paper
- Paper and board testing

Unit-IV **Print-with Materials (Inks and other coatings)**

- Different kinds of inks
- Composition printing ink
- Manufacturing of printing inks
- Different methods of ink drying
- General characteristics of printing ink
- Classification of ink according to their use in different printing processes
- Terminology used in printing inks
- Necessary information to be furnished to the ink maker while ordering the ink

Unit-V **Print-finish Materials (Binding materials)**

- Adhesives - nature, classification, advantages and limitations
- Securing materials – threads, tapes, stitching wire and sewing cords
- Covering materials – paper, board, leather, plastic, and woven materials like Rexine and Calico
- Finishing materials – gold leaf, silver foil, colour foils, edge decorations materials

Room No_____ **Regd .No._____**

MODEL QUESTION PAPER
DIPLOMA IN PRINTING TECHNOLOGY
I SEMESTER END EXAMINATIONS

Class : DIPLOMA IN PRINTING TECHNOLOGY Max Marks : 75
Subject : PRINTING TECHNOLOGY Pass Mark : 30
Title of the paper : Printing Materials Time :
Paper Code : DPT-PM- 513 Duration : 3Hrs
Date :

SECTION – A

Answer ALL the questions5X10=50M

1. a) Write the classification of light sensitive materials according to coloursensitivity.

(OR)

b) What is photographic paper, explain.

2. a) List out different types of offset image carriers, and explain wipe on plates.

(OR)

b) Write briefly about type metal alloy.

3. a) Write any three papers and board testing methods.

(OR)

b) Explain briefly about different types of sizing operations.

4. a) Write briefly about the importance of 'mixing' in ink manufacturing.

(OR)

b) Write briefly about letters press inks.

5. a) Write the general characteristics and requirements of printing inks.

(OR)

b) Write the classification of adhesives and explain about natural adhesives.

SECTION -B

Answer any FIVE questions from the following: 5X5=25M

6) State and explain film speed.

7) Write any three factors which influence film speed.

8) Explain the characteristics of nylon as a screen printing image carries.

9) What are the requirements of photo engraving plates?

10) Define and explain 'sizing'?

11) What is 'dimensional stability' of paper. Explain

12) Write briefly about screen Printing ink

13) List out different securing materials used in printing.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

UGC Scheme of Community Colleges

DIPLOMA IN PRINTING TECHNOLOGY (ONE YEAR COURSE)

IMAGE PROCESSING

Subject title : Image Processing

Subject code : DPT-IP- 514A (WEF: 2018-19)

Periods per week : 06

Periods / Semester : 60

Credits : 04

UNIT	MAJOR TOPICS	No. of Periods	Weightage of Marks
1	Computer Basics	15	5
2	M.S.Word	15	10
3	Adobe Photoshop	15	20
4	CorelDRaw..Basics	10	20
5	CorelDRaw..Effects	5	20
	TOTAL	**60**	**75**

Class	Semester	Title of The Paper:	Paper Code:	W.E.F
Printing & Technology	I	Image Processing	DPTIP514A	2018-19

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
60			3 HRS			04

COURSE OBJECTIVES:

To make the student learn and understand

- Computer basics, Data information.
- Classification and characteristics of computers
- Block Diagrams, Understand functions and operating systems.
- Creating new documents, inserting pictures, giving Headers and foot notes.
- Creating new documents in coral Draw by using tool bar, from templates etc.

Course outcomes:

On compution of the course the students will attain the knowledge in working with

- The different softwares like M.S.Word, Adobe, Photoshop, coral Draw etc.
- Applying various effects like Blend, contour, envelope, distort etc.
- Imparting and experting images duplicating and cloning objects.
- Inserting numbers, page backgrounds etc.
- Applying the options of inverse, using filters, feathering etc.

COURSE CONTENTS:

UNIT 1: Computer basics… Data..information…Characteristics of Computer…Classification of Computer…Generations of Computer…Computer Block diagram…Types of Memories…Secondary Storage devices …Operating system…functions of operating system…Types of operating System…Input and Output Devices..Types of Printers..Different types of Ram and ROM.

UNIT 2: M.S.Word:

Creating new document ..Page setup options .. Columns, Dropcap, Pagebackground settings, Water mark.. Change case, Page borders and text borders.. Page numbering .. inserting pictures, auto shapes, WordArt & Clip art .. Headers and Footers .. Book marks .. Table menu options ..Mail Merge.

Unit 3: Adobe Photoshop:

Creating new document…color modes…resolutions…Using Photoshop tools…Creating new color shades…Using Styles…Transforming objects…Applying fill and Stroke… Copy .. copy merge…paste into…defining new patterns, new brushes and custom shapes…Types of Layers…Types of masks…adjustments menu…using text tools and text masks…Select, Deselect and inverse…feather… using filters…Blending options…Black and white to color photo making…saving image in different formats and printing.

Unit 4: CorelDRaw:

Creating new document…Using tool box…New document from template…Saving and printing document .. Page layout and page setup .. Inserting, duplicating and deleting pages…Exporting of documents…importing and exporting images…duplicating and cloning objects,…inserting page numbers.. page backgrounds…using symbol manager…Using Power clip …combining and breaking objects.

Unit 5:

Applying various effects…Blend, Contour, Envelope, Distort, Extrude, Perspective, and Lens … Placing and working with Paragraph and artistic text…font properties.

REFERENCE BOOKS

1. Fundamentals of Computers by Rastogi
2. Manuals of CorelDraw,
3. Manuals of Photoshop
4. Ms Word 2010 Bible.

Room No_____ Regd .No._____

MODEL QUESTION PAPER
DIPLOMA IN PRINTING TECHNOLOGY
***I* SEMESTER END EXAMINATIONS**

Class : DIPLOMA IN PRINTING TECHNOLOGY Max Marks : 75
Subject : PRINTING TECHNOLOGY Pass Mark : 30
Title of the paper : IMAGE PROCESSING Time : :
Paper Code : DPT-PS 524 **A** Duration : 3Hrs
Date :

SECTION – A

Answer ALL the questions **5X10=50M**

1. a) Write Various generations of computers.

(OR)

b) Describe Computer Block diagram.

2. a) Give a detailed study on Mail Merge.

(OR)

b) Give an over view of Table Menu commands.

3. a) Explain Brush tools in Photoshop with examples.

(OR)

b) Write about Various masks in Photoshop.

4. a) Write detailed note on Transformations in CorelDRaw.

(OR)

b) Discuss the tools in CorelDRaw.

5. a) Write about Contour, Blend, Distort effects in CorelDRaw.

(OR)

b) How to make a black and white photo into colour in Photoshop?

SECTION -B

Answer any FIVE questions from the following: 5X5=25M

6. What is a Pen tool?

7. What is Column guides and copy column guides?

8. What do you mean by New fill adjustment layer?

9. What is a Change case?

10. Explain History brush and Art History Brush.

11. Write about Eraser Tools in Photoshop.

12. What is Drop cap and Book Marks?Explain Image importing options.

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UGC Scheme of Community Colleges

DIPLOMA IN PRINTING TECHNOLOGY (ONE YEAR COURSE)

FLEXO, GRAVURE AND SCREEN PRINTING

Subject title : Flexo, Gravure and Screen Printing

Subject code : DPT-FGP-515

Periods per week : 03
Total periods per Semester : 45

Credits : 03

TIME SCHEDULE

S. No	Major Topics	Periods	Weightage of Marks
1.	Flexographic Principles and Plate Surface Preparation	08	10
2.	Flexographic Press work	08	20
3.	Study and Preparation of Gravure Image Carrier – Doctor Blade and its care	04	10
4.	Inks for Gravure Process	05	10
5.	Materials used in Gravure Process	05	10
6	Slitting & Rewinding Machine – Equipment used (Or Quality Control – Defects) And Remedies	05	05
7	Screen Printing	10	10
Total		**45**	**75**

Class	Semester	Title of The Paper:	Paper Code:	W.E.F
Printing & Technology	I	Flexo, Gravare & Screen Printing	DPT FGP 515	2018-19

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
45	06		03	25	75	03

COURSE OBJECTIVES:

To make the students learn and understand

- Principles of Flexography, plate surface preparation of flexography.
- Press work on Flexography
- Study and preparation of Gravure image carrier, Doctor blade etc.
- Inks and materials used in Gravure process.
- Preparation of screen, Identifying the mesh, selection of squeegee

COURSE OUTCOMES:

On completion of the course the students will enlighten themselves with

- Flexographic printing process, Techniques of making rubber moulded plates, polymer plates, plate mounting methods etc.
- Preparation of image carriers for gravure printing, Transfer of image on Gravere cylinder by carbon tissue.
- Process of chemical etching, laser engraning etc.
- Working on slitting and rewinding machines
- Using equipments used for quality control, identifying defects and remedies.
- Selection of mesh-squeeze, frames etc for screen printing

COURSE CONTENTS

Unit I - Flexographic Principles And Plate Surface Preparation

Principle of Flexographic Printing Process-Surface preparation-Techniques of making molded rubber plate and polymer plates-Plate mounting methods-handling-storage of plates.

Unit II - Flexographic Press Work

Printing units of flexography press-Construction and description-Flexographic printing machines-Plate cylinder and impression cylinder-Paper and ink qualities and controlling system-Inking system - fountain roller-Anilox roller-Types of inking system-Press types-Stack, common impression and inline presses-Ink and solvents used for Flexographic printing.

Unit III – Study and Preparation of Gravure image carrier – Doctor Blade and its care

Detailed study of Gravure cell structure-Different types of cells – Varying in depth, area, and depth and area-Construction of gravure cylinder-Transfer of image on the gravure cylinder – Direct and Carbon tissue method-Chemical etching-electronic engraving-Laser engraving-Precautions to be taken during preparation of gravure cylinder-Techniques of surface finishing – electroplating of gravure cylinder with Chromium and Nickel-Nature-use and maintenance of doctor blade

Unit IV – Inks for Gravure Process

Manufacture of gravure inks-Ingredients of gravure inks-Various solvents used in gravure process-Solvent recovery methods

Unit V – Materials used in Gravure Process

Different kinds of substrates used for printing by Gravure Process like PVC, PVA, BOPP, Foil, Film, Paper, Board etc-Characteristics and properties required for substrates

Unit VI – Slitting & Rewinding Machine – Equipment used for Quality Control – Defects and Remedies

The purpose and working of a Slitting and Rewinding Machine-Various types of equipment used for quality control-Identifying the defects during printing-Suggest remedies

Unit VII – Screen Printing

Mesh-Squeegee Selection-Screen pre treatment-Screen Tensioning-Screen Printing Machines- Container Screen Printing-Flat bed Hinged Frame (Automatic)-Rotary Screen Printing-Carousal Printing Machines-Screen Printing Inks–Types-Properties-Screen Printing Applications

Reference Books :

Flexographic principles and practice, Flexographic Technical Associations, Inc.New York, 1980.Rotogravure and Flexographic printing presses.By Herbert L. Weies, Converting Technology Corporation, 4771, N. Bartlett Drive, Milwaukee, WI, 53211, USA. Modern Gravure Technology, Harry B Smith, Pira International, U.K. Screen process printing, John Stephens, Blue Print, An Imprint of Hapman& Hall, London. Flexography Primer GATF. Screen Process Printing – by John Stephens, Blue Print, Handbook Of Print Media by Helmut Kipphan, Screen Printing Primer – by Samuel Ingram, GATF

MODEL QUESTION PAPER

DIPLOMA IN PRINTING TECHNOLOGY

I SEMESTER END EXAMINATION

Class : DIPLOMA IN PRINTING TECHNOLOGY Max Marks : 75

Subject	: PRINTING TECHNOLOGY	Pass Mark	: 30
Title of the paper	:Flexography Printing	Time	:
Paper Code	: DPT-FGP- 515	Duration	: 3Hrs
		Date	:

SECTION - A

Write <u>ALL</u> the Questions: **5X10=50M**

1. a) Give the different types of Flexo printing presses. Draw neat sketches.

(OR)

b. Describe the construction of a typical Flexo printing press.

2. a) Write about the plate mounting of a Flexo printing press.

(OR)

b) Explain the principles of Flexography printing press and draw a neat sketch.

3. a) Write about how a Rubber plate is prepared.

(OR)

b) What type of precautions you take while storing the plate?

4. a) Explain the nature and maintenance of Doctor Blade.

(OR)

b) What are the precautions taken during preparation of gravure cylinder?

5. a) How is image transferred on the gravure cylinder?

(OR)

b) Explain the construction of a gravure cylinder.

SECTION - B

Write any <u>Five</u> Questions: **5X5=25M**

6) Write aboutAnilox roller.

7) Give the different types of webs and web ranges.

8) Describe about plate cylinder of the Flexographic press.

9) Describe about impression cylinder of Flexographic press.

10) List out the Minor components & Major components of a Flexo printing press.

11) Name the ingredients of gravure ink

12) Describe the manufacture of typical gravure inks.

13) What type of precautions to be taken during Gravure cylinder?

DIPLOMA IN PRINTING TECHNOLOGY (ONE YEAR COURSE)

BOOK BINDING AND FINISHING

POST PRINTING OPERATIONS

Subject Title : Post Printing Operations(Book Binding & Finishing)

Subject Code : DPT-BBF-516

Periods per week : 03

Total Periods per Semester : 45

Credits : 03

TIME SCHEDULE

S. No	Major Topics	Periods	Weightage of Marks
1.	Introduction to Binding and Finishing	08	15
2.	Materials used in Binding	12	15
3.	Methods of Binding & Modern Commercial Binding	10	20
4.	Forwarding Operations	05	10
5.	Automation in Binding	10	15
Total		**45**	**75**

Class	Semester	Title of The Paper	Paper Code	W.E.F
Printing & Technology	**I**	**Book Binding & Fininshing**	**DPT-BBF-516**	**2018-19**

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
45	03		03	25	75	03

COURSE OBJECTIVES:

To make the students know about

- The History of Book Binding
- Classification of Book Binding.
- Binding and Finishing Tools.
- Materials used in Binding
- Modern methods of commercial binding and automation in binding.

COURSE OUTCOMES:

On completion of the course the students will be equainted with

- Defining GSM of paper.
- Maintaining ware house operations
- Securing materials and adhesives
- Do loose leaf binding and adhesive binding
- Forwarding operations like collating, crosing etc

Syllabus:

1.0 Introduction to Binding

1.1 Describe History of book binding

1.2 Classification of Book Binding

1.3 End Paper

1.4 Binding and Finishing Tools

1.5 Define GSM system

2.0 Materials used in Binding

2.1 Ware House

2.2 Covering Materials

2.3 Reinforcing Materials

2.4 Securing Materials

2.5 Adhesives

2.6 Book Finishing Materials

3.0 Methods of Binding & Modern Commercial Binding

3.1 Explain Styles of Book covering – Hard cover – Paper back – Thermally Activated binding

3.2 Explain Letterpress Binding

3.3 Explain and compare Stationery Binding with Publisher's Binding

3.4 Explain and compare Loose leaf Binding with Adhesive Binding

3.5 Describe Edge Decoration

3.6 Describe Conservation and Restoration

4.0 Forwarding Operations

4.1 Cutting

4.2 Folding

4.3 Creasing

4.4 Perforating

4.5 Die Cutting and Slitting Operations

5.0 Automation in Binding

5.1 Programmable Cutting Machine

5.2 Folding Machine

5.3 Wire Stitching Machine

5.4 Rounding and Backing Machine

5.5 Gathering Machines

COURSE CONTENT

UNIT - I Introduction to Binding

History of book binding - Earlier books; Classification of Book Binding- Quarter Bound Book, Half Bound Book – Old Style and New style, Full bound Book; End Paper – Types and Uses – Single End Paper, Made End Paper, Reinforced End Paper, Cloth Zoint End Paper; ZigZag End Paper; Paper – Various sizes of Conventional and ISO papers – Their sub divisions – GSM system.

UNIT - II Materials used in Binding

Ware House, Types of Ware House – white Paper ware house, Printed paper ware house; Covering Materials – Binding cloth, Buckram Cloth, Rexene leather, Paper fabric, PVC; Reinforcing Materials – Mull Cloth, Calico Cloth, Tapes and cords; Securing Materials – Thread, Wire, Metal and Plastic Units; Adhesives – Paste, Glue, Synthetic Adhesive, Hot melt, Gum; Book Finishing Materials – Gold leaf, Blocking foil

UNIT - III Methods of Binding & Modern Commercial Binding

Explain Styles of Book covering – Hard cover – Paper back – Thermally Activated binding; Explain Letterpress Binding; Explain and compare Stationery Binding with Publisher's Binding; Explain and compare Loose leaf Binding with Adhesive Binding; Describe Edge Decoration; Describe Conservation and Restoration

UNIT - IV Forwarding Operations

Cutting, Trimming, Difference between Cutting and Trimming, Folding – Types of Folding – Folding to paper, Folding to print, Lump folding; Creasing, Gathering, Collating, Binder's/Collating mark, Inserting; Perforating - Types of Perforating, Punching and Drilling, Numbering – Horizontal numbering and vertical numbering; Die Cutting and Slitting operations

UNIT - V Automation in Binding

Programmable Cutting Machine and its Operations – machine bed, Clamp, Back guage, Knife and safety mechanisms; Folding Machine and its operations – Buckle folding, knife folding and combination folding stations; Wire Stitching Machine and its Operations – wire unwind, wire

straightened, cutter block; Rounding and Backing Machine and its operations; Gathering Machines and its operations

Reference Books:

Modern Book Binding by Alex J. Vaughan

Finishing Process in Printing by A.G. Martin

Manual of Book Binding by W. Johns

Folding in Practice – by Alfred Furler

Printing and Die Cutting - by Vanessa Bailey

HAnd Book of Print Media – byHelmutKippan Ed., Heidelberg

Introduction to Printing and Finishing – by Hugh M. Spiers

What the Printer should know about paper – by Lawrence A. Wilson

Printing Technology – by Michael Adams J. and Penny Ann Dohn

Room No_____ **Regd .No._____**

MODEL QUESTION PAPER

DIPLOMA IN PRINTING TECHNOLOGY

I SEMESTER END EXAMINATIONS

Class : DIPLOMA IN PRINTING TECHNOLOGY Max Marks : 75

Subject : PRINTING TECHNOLOGY Pass Mark : 30

Title of the paper : Bookbinding & Finishing Time :

Paper Code : DPT-BBF516 Duration : 3Hrs

Date :

SECTION - A

Write ALL Questions: **5X10=50M**

1. a)Write about Binding and ware house operations.

(OR)

b) Give the details of ISO paper sizes.

2. a) Different varieties of folding & Folding m/c operations.

(OR)

b) Elaborate the stitching and securing operations in Book Binding.

3. a) Explain briefly classification of Binding.

(OR)

b) Give the styles of Book Binding – Publishers binding.

4. a) Write about Account Book Binding.

(OR)

b) Write in detail about In Board and Out Board operations.

5. a) Discuss in detail about book Finishing operations.

(OR)

b) Explain in detail the covering procedure.

SECTION - B

Write any Five questions: **5X5=25M**

6. Define GSM and give method of calculating GSM.
7. What is counting?
8. Write about Jogging.
9. Give short notes on punching
10. How creasing is done?
11. What is collating
12. Write about perforating
13. Write shortly about Library Binding.

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

UGC Scheme of Community Colleges

DIPLOMA IN PRINTING TECHNOLOGY (ONE YEAR COURSE)

COMPUTER FUNDAMENTALS PRACTICE LAB - 50M

Subject Title : Computer Fundamentals Practice Lab
Subject Code : DPT-CFL-517(P)

Periods/Week : 04
Periods per Semester : 60
Credits : 04

Class	Semester	Title of The Paper	Paper Code	W.E.F
Printing & Technology	I	Computer Fundamentals & Practicals Lab	DPT CFL 517(P)	2018-19

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
45			03			04

SPECIFIC OBJECTIVES

On completion of this subject the student would be able to

1. Identify the various components of a Computer system
2. Differentiate between hardware and software

3. State the functions of each component of a computer a system
4. State the configuration of a computer system
5. Identify the various peripherals
6. Know how to open an application program
7. Know how to create a folder in a specified location
8. Open MS-word and identify the components on the screen
9. Create a document using MS-word and save it
10. Create a table using MS-Word and save it
11. Create mailing letters using mail merge tool of MS-word
12. Open MS-Excel and identify the components on the screen
13. Create a Worksheet in MS-Excel and save it
14. Generate a Chart using the data in Excel-worksheet
15. Automate calculations in a worksheet using formula
16. Sort and filter data in a worksheet
17. Create a simple Power point presentation for a small topic
18. Backup required files and folders to a CD-ROM
19. Introduction to the internet technology and imparting training to use searching of required sites and using e-Mails etc..

COURSE CONTENT:

1. Study of a computer system
2. Familiarise with basic MS-WINDOWS facilities like opening programs, searching, creating folders, copying and shifting data, etc.
3. Create a formatted word document using MS-Word
4. Familiarise with spell checker facility of MS-Word
5. Print the Word document using page setup and Print facilities
6. Create a soft copy of a given table using MS-Word
7. Create mailing letters for a given information using MS-Word
8. Create a soft copy of the given statistical data using MS-Excel

9. Generate Appropriate Chart for the statistical data using MS-Excel
10. Generate the soft copy of a worksheet using formula facility of MS-Excel
11. Create a soft copy of a simple database using Excel. Run sort and filter facilities for the database
12. Create a power point presentation for a simple technical topic using MS- PowerPoint
13. Create a backup CD for a data using NERO or similar CD writing software
14. Create an user account on the Internet and e-mail and sending a document to from a given e-mail address. To another e-Mail ID as attachment.
15. Using different search engines finding required sites to collect information on engineering related topics including down loading the contents.

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UGC Scheme of Community Colleges

DIPLOMA IN PRINTING TECHNOLOGY (ONE YEAR COURSE)

BOOK BINDING AND FINISHING LAB - 50M

Subject Title : Book binding and finishing Lab

Subject Code : DPT-BBFL- 518 (P)

Periods per week : 03

Periods per semester : 45

Credits : 03

Class	Semester	Title of The Paper	Paper Code	W.E.F
Printing & Technology	I	Books Binding & Finishing Lab	DPT – BBFL-518(P)	2018-19

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
45	03		03		50	03

OBJECTIVES

- To study the tools equipments and machines in the lab.
- To identify different binding materials
- To practice jogging and counting the sheets
- To practice folding the sheets
- To prepare end papers
- To practice stitching and covering books.

- To operate paper cutting machines
- To operate stitching machines and perforating machines
- To operate numbering machines
- To prepare files and bill books

EXERCISES

Introduction and identification of binding tools, equipments and machines.

1. Practicing of folding jogging and counting of sheets
2. Different methods of inserting and guarding of sheets
3. Preparation of end papers
4. Stitching of books, attaching wrappers, glowing, tipping-on methods
5. Operating paper cutting, board cutting machines
6. Working with perforating machines, stitching Machines
7. Operating gathering machine and using equipments
8. Book sewing methods.
9. Preparing bill books, files and letter heads

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

UGC Scheme of Community Colleges

DIPLOMA IN PRINTING TECHNOLOGY (ONE YEAR COURSE)

SHEET FED OFFSET MACHINE-LAB - 50M

Subject Title : Sheet Fed Offset Machine-Lab

Subject Code : DPT-SFO-L519(P)

Periods / Week : 05

Periods / Semester : 75

Credits : 05

Class	Semester	Title of The Paper	Paper Code	W.E.F
Printing & Technology	I	Sheet fed Offset Machine LAB	DPT – SFO-L 519(P)	2018-19

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
50			03			05
	03				50	

OBJECTIVES:

- To learn lubrication of machines
- To carry out pre makeready operations
- To learn fixing and removal of the plate and the blanket
- To prepare fountain solutions
- To set dampening rollers
- To set ink fountain and inking rollers
- To carry out makeready operations
- To learn ink roller wash ups and dampening roller cleaning
- To acquaint with safety precautions to be observed while working on machines

EXERCISES

1. Lubrication and maintenance of Offset machines
2. Premake-ready operations of offset printing machines.
3. Adjustment of automatic feeders for single sheet feeding.
4. Preparation of offset plate for mounting on the cylinder.
5. Preparation and fitting of offset blanket.
6. Care and treatment of offset blanket in use.
7. Preparation of fountain solution and plate etches for use.
8. Preparation of dampening rollers.
9. Adjustment of inking and dampening rollers.
10. Ink fountain setting.
11. Make-ready and printing two-colour work of line and halftone.
12. Ink roller wash-up.
13. Dampener cleaning.
14. Preparing the plate for storage.
15. Safety precautions while working on machines.

II-SEMESTER

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

UGC Scheme of Community Colleges

DIPLOMA IN PRINTING TECHNOLOGY (ONE YEAR COURSE)

SEMESTER- II

S.No.	Name of the subject
1	English-II DTP-ENG-512A
2	Designing & Advertising In Print Media DTP-DAP-522
3	Sheet Fed Off Set Machines DPT-SFOM-523
4	Publishing SoftwareDPT-PS-524
5	Electronic Colour Separation &Management DPT-ECSM-525
6	Modern Plate Making Techniques DPT-MPMT-526

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

UGC Scheme of Community Colleges

DIPLOMA IN PRINTING TECHNOLOGY

COURSES FOR SECOND SEMESTER			
Course Code	Course Title	Hours	Credit
General Education			
DPT-ENG-521A	English-II	30Hrs	2
Skill Component			
DPT-PS-524	Publishing Software	45Hrs	3
DPT-DAP-522	Design & Advertising in Print Media	45Hrs	3
DPT-SFOM-523	Sheetfed Offset Machines	75Hrs	5
DPT-ECSM-525	Electronic Colour separation & Management	60Hrs	4
DPT-MPMT-526	Modern Plate making Techniques	45Hrs	3
Industrial Training			
DPT-IND-TRNG-I	Machine Printing	75Hrs	5
DPT-IND-TRNG-II	Post-press operations	75Hrs	5
			Total Credits=30
❖ FIELD VISIT TO INDUSTRY			

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DIPLOMA IN PRINTING TECHNOLOGY (ONE YEAR COURSE)

ENGLISH - II

Subject Title : English-II

Subject Code : DPT-ENG-521 A

Periods per Week : 02

Periods per Semester : 30

Credits : 02

Time Schedule

SlNo	Major Topics	No. of Periods	Weightage of Marks
1	Vocabulary	**05**	20
2	Reading	**05**	10
3	Writing	**15**	35
4	English in use	**05**	10
Total		**30**	75

Class	Semester	Title of The Paper	Paper Code	W.E.F
Printing & Technology	II	English	DPT-ENG-512 A	2018-19

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
30	02		03	25	75	02

COURSE OBJECTIVES

- Comprehensive English reading
- Use of prefines/suffires
- Identify components of a good paragraph
- Write personal letters, leave letters, official letters.
- Prepare a resume, write a covering letter, report incidents.

COURSE OUTCOMES:

On completion of the course the students will identify and learn the usage of

- Preferies/Sufferies
- Write reports on Industrial visits
- Present and interpret Data from flow charts, tree diagrams etc.
- Write short messages, official letters etc.
- To give contextual meaning of the words.

SEMESTER II

SYLLABUS

1. **Extend their vocabulary in the direction of their future needs**

    1.1 Use affixation – Prefixes/Suffixes

2. **Read and comprehend English**

    2.1 Identify the main ideas

    2.2 Identify the specific details

    2.3 Draw inferences

    2.4 Give contextual meanings of the words

3. **Learn to excel in various forms of written communication (writing composition and data interpretation)**

    3.1 Identify components of a good paragraph

    3.2 Distinguish between formal and informal letters

    3.3 Write personal letters

    3.4 Write leave letters

    3.5 Write official letters

    3.6 Write letters of complaints

    3.7 Prepare a resume

    3.8 Write a cover letter

    3.9 Write short messages

    3.10 Report incidents

    3.11 Report Industrial visits

    3.12 Present and Interpret Data from flow charts, tree diagrams, bar graphs, tables, pie charts

4. Practice spoken communication suited to various situations.

4.1 Use suitable expressions to state intentions

4.2 Use suitable expressions to state feelings

4.3 Use appropriate expressions to state agreement and disagreement

4.4 Use proper expressions to make complaints

4.5 Use suitable expressions to express obligations

DEPARTMENT OF PRINTING TECHNOLOGY

MODEL QUESTION PAPER

SEMESTER - II

Class: DIPLOMA IN PRINTING TECHNOLOGY

Subject: English -I **Marks: 75**

Sub Code: DPT-ENG -521 A **Time: 3Hrs**

SECTION A

I. Use the prefixes given and write down two words for each prefix: 5X2=10

a. Re-

b. Pre-

c. Mis-

d. Un-

e. Multi-

II. Use the suffixes given and write down two words for each suffix: 5X2=10

a. –less

b. –able

c. –ful

d. –ment

e. –tion

SECTION B

III. **A**. Read the passage and answer the questions that follow: 5X1=5

Dolphins are regarded as the friendliest creatures in the sea and stories of them helping drowning sailors have been common since Roman times. The more we learn about dolphins, the more we realize that their society is more complex than people previously imagined. They look after other dolphins when they are ill, care for pregnant

mothers and protect the weakest in the community, as we do. Some scientists have suggested that dolphins have a language but it is much more probable that they communicate with each other without needing words. Could any of these mammals be more intelligent than man? Certainly the most common argument in favour of man's superiority over them that we can kill them more easily than they can kill us is the least satisfactory. On the contrary, the more we discover about these remarkable creatures, the less we appear superior when we destroy them.

a. What could be the title of this passage?
b. How are the dolphins regarded as?
c. Dolphins have some social traits that are similar to those of humans, True/False?
d. Choose the synonym for 'remarkable' from the words given below:
   i) Outstanding ii) redesign iii) notorious
e. What is meaning of 'look after'?

B. Read the passage and answer the questions that follow: 5X1=5

Much of the blood on the street flows essentially from uncivil behaviour of drivers who refuse to respect the legal and moral rights of others. So the massacre on the road may be regarded as a social problem. Safety standards for vehicle have been raised both at the point of manufacture and through periodic road-worthiness inspections. In addition, speed limits have been lowered. Due to these measures, the accident rate has decreased. But the accident experts still worry because there has been little or no improvement in the way drivers behave.

a. What title would you give to the passage?
b. What is the reason behind most of the road accidents?
c. Give one reason for the decrease of the road accidents.
d. There has been an improvement in the manner in which the drivers behave. True/False.
e. Choose the synonym for 'uncivil' from the words given below:
   i) Polite ii) rude iii) angry

SECTION C

IV. Write a letter to your parents in about 75 words describing the annual day celebrations in your college. 1X10=10

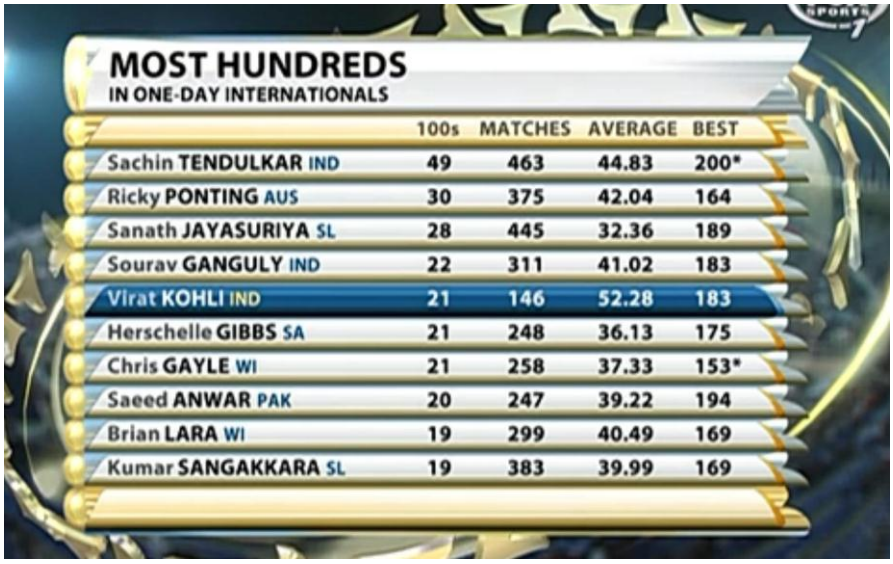
V. Wanted: A marketing executive who is a graduate with more than 2 years of experience in a reputed company. He should be fluent in both English and Hindi. He should be willing to travel extensively. Send in your Resume within 5 days to Global Marketing Agencies, King Koti, Hyderabad. 1X10=10

VI. You witnessed a man snatching a chain from the neck of a woman on the street. Write a report to the Inspector of Police in about 75 words. 1X10=10

VII. The Bill books that you received from Priya Publishers, Hyderabad are not up to the mark. Write a letter asking the publishers to replace them. 1X5=5

SECTION D

VIII. Study the table given below and answer the following questions. 1X5=5



MOST HUNDREDS
IN ONE-DAY INTERNATIONALS

	100s	MATCHES	AVERAGE	BEST
Sachin TENDULKAR IND	49	463	44.83	200*
Ricky PONTING AUS	30	375	42.04	164
Sanath JAYASURIYA SL	28	445	32.36	189
Sourav GANGULY IND	22	311	41.02	183
Virat KOHLI IND	21	146	52.28	183
Herschelle GIBBS SA	21	248	36.13	175
Chris GAYLE WI	21	258	37.33	153*
Saeed ANWAR PAK	20	247	39.22	194
Brian LARA WI	19	299	40.49	169
Kumar SANGAKKARA SL	19	383	39.99	169

a. Who are the batsmen who played more than 400 ODI matches?

b. Who has the highest average in scoring centuries?

c. Whose best score is 194?

d. ViratKohli's best is 183. Which other batsman has the same best score?

e. Which batsman has the least average in scoring centuries?

SECTION E

IX. Write five appropriate expressions to state agreement and disagreement. 5X1=5

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

UGC Scheme of Community Colleges

DIPLOMA IN PRINTING TECHNOLOGY (ONE YEAR COURSE)

DESIGN & ADVERTISING IN PRINT MEDIA

Subject Title : Design & Advertising in Print Media

Subject Code : DPT-DAP-522

Periods per Week : 03

Periods/Semester : 45

Credits : 03

Sl. No.	Major Topics	Periods	Weightage of Marks
1	Introduction to Typographic Design And Advertising	09	20
2	Role of Typography in Design	09	15
3	Designing aspects of Book, Magazine and News Paper	10	15
4	Design of Miscellaneous Printed Products	08	10
5	Operations and functions of an Advertising Agency	09	15
Total		45	75

Class	Semester	Title of The Paper	Paper Code	W.E.F
Printing & Technology	II	Design & Advertising in Print Media	DPT-DAP-522	2018-19

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
45	03		03	25	75	03

COURSE OBJECTIVES:

- Introduction to Typographic Design & advertising.
- Role of Typography in Design
- Designing Aspects of book, Magazine and Newspaper.
- Design for miscellaneous printed products.
- Operations and functions of an advertising agency.

COURSE OUTCOMES

On completion of the course the students will learn to

- Analyze the need for design
- Understand the terms Balance, contrast, harmony, unity, Texture etc.
- Discuss the typographic fundamentals
- Define point system, legibility and readability
- Describe the book pots, magazine design

Syllabus:

1.0 Introduction to Typographic Design and Advertising

1.1 Define the term typographic design

1.2 Analyze the need for design,

1.3 Explain the role of various elements of Design

1.4 Define the term Balance,

1.5 Define the term Contrast,

1.6 Define the term Harmony,

1.7 Define the term Unity,

1.8 Define the term Texture,

1.9 Differentiate among the terms Line, Shape, Rhythm,

1.10 Define the term Repetition,

1.11 Differentiate between the terms Optical Center and Geometric Centre

1.10 illustrate the world of Print media advertising

1.13 Define Advertising

1.14 Explain types of advertising

1.15 Describe the history of advertising

1.16 Illustrate advertising through the ages

1.17 Explain the role of printing presses in Advertising

2.0 Role of Typography in Design

2.1 Discuss the typographic fundamentals (Type faces, families and Series)

2.2 Define point system

2.3 Compare among different composing methods

2.4 Describe the importance of Legibility and Readability

2.5 Demonstrate various stages of layout preparation and integration

2.6 Explain proof reading marks and check list

2.7 Apply margins in a page layout

2.8 Describe typography and art work

3.0 Designing Aspects of Book, Magazine and News Paper

3.1 Explain book parts, their design & procedure

3.2 Explain magazine design – types of magazines

3.3 Describe newspaper (front page elements)

3.4 Name various newsletters and house journals

4.0 Designs for Miscellaneous Printed Products

4.1 Explain design aspects of leaflets,

4.2 Classify different pamphlets,

4.3 Classify different catalogue,

4.4 Classify different brochures,

4.5 Name booklets,

4.6 Classify different labels.

4.7 Classify different technical literature

4.8 Name types of cartons

5.0 Operations and functions of an Advertising agency

5,1 Explain the structure and functioning of an Ad company

5.2 Analyze the workflow of an Ad creation

5.3 Identify soft wares and parameters used by an Agency

5.4 Describe the qualities of an Advertiser

COURSE CONTENT

Unit I: Introduction to Typographic Design and Advertising

Definition – Need for design, Elements of Design – Balance, Contrast, Harmony, Unity, Texture, Line, Shape, Rhythm, Repetition, Optical Center and Geometric Centre, Introduction to Advertising,

Illustrate the world of Print media advertising, Define Advertising, Explain types of advertising, Describe the history of advertising, Illustrate advertising through the ages

Explain the role of printing presses in Advertising

Unit II: Role of Typography in Design

Typographic fundamentals (Type faces, families and Series)

Point System

Different composing methods

Importance of Legibility and Readability

Layout preparation – various stages and integration

Proof reading – Marks – Check List

Page Layout and Margins

Typography and Art work

Unit III: Designing Aspects of Book, Magazine and News Paper

Book Design – parts - procedure

Magazine Design – types of magazines

Newspaper (Front Page Elements)

News Letters – House Journals

Unit IV: Design for Miscellaneous Printed Products

Design aspects of – Leaflets, pamphlets, Catalogue, brochures, Booklets, Labels, labels, technical literature, cartons

Unit V: Operations and functions of an Advertising agency

Structure and functioning of an Ad company-Workflow of an Ad creation-Softwares and parameters used by Agency-Describe the qualities of an Advertiser

REFERENCE BOOKS

1. Desk Top Design 2nd Edition by Brain cookman
2. Desk Top Publishing Design basics published by Alan Holmes
3. Printing Industry by Victor Strauss
4. Wells, Burnett and Moriarty; 'Advertising: Principles & practice'; Prentice Hall Inc.,

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MODEL QUESTION PAPER

DIPLOMA IN PRINTING TECHNOLOGY

IISEMESTER END EXAMINATIONS

Class : DIPLOMA IN PRINTING TECHNOLOGY Max Marks : 75
Subject : PRINTING TECHNOLOGY Pass Mark : 30
Title of the paper :DESIGNING & ADVERTISING IN PRINT MEDIA Time :
Paper Code : DPT-DAP-522 Duration : 3Hrs
Date :

SECTION – A

Answer ALL the questions **5X10=50M**

1. a. What is design and explain the need for designing?

(OR)

b. Mention the difference between Geometric centre and Optical centre?

2. a. Explain about harmony and how can harmony can be achieved?

(OR)

b. State the factors that affect readability and ways to improve it?

3. a. Mention the considerations for a good design and layout preparation?

(OR)

b . Mention the importance of proof reading?

4. a.What are the different types of magazines? Give examples?

(OR)

b.What is a folder? How do you design it?

5. a. Explain in detail about colour theory?

(OR)

b. How do you plan and analyze a design? What are the aesthetical and technical aspects of design?

SECTION -B

Answer any FIVE questions from the following: **5X5=25M**

6. Mention in detail the characteristics of design?

7. Explain symmetrical balance?

8. What is pre-layout planning?

9. Explain justified setting?

10. What is bibliography?

11. What is leaf let?

12. Mention about brochure?

13. State the importance of colour?

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

UGC Scheme of Community Colleges

DIPLOMA IN PRINTING TECHNOLOGY (ONE YEAR COURSE)

SHEETFED OFFSET MACHINES

Subject title : Sheet fed Offset Machines
Subject code : DPT-SFOM- 523

Periods per week : 05
Total periods per Semester : 75

Credits : 05

Sl. No.	Major Topics	Periods	Weightage of Marks
1	Offset Lithographic Presses	11	10
2	Printing Unit	06	10
3	Inking and Dampening	09	10
4	Sheet Handling, Controlling and Transferring	09	05
5	Make-read and the Machine Run	08	10
6	Introduction to Web Offset Printing Press	09	10
7	Make-ready and Feeding Unit	07	10
8	Printing Unit	08	05
9	Delivery Unit	08	05
Total		75	75

Class	Semester	Title of The Paper	Paper Code	W.E.F
Printing & Technology	II	Sheet fed offset machines	DPT – SFOM - 523	2018-19

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
75	05		03	25	75	05

COURSE OBJECTIVES:

The course will cover the aspects

- Principles of offset/lithographic printing process.
- Printing unit in the offset press like plate cylinder, Blanket cylinder.
- Inking and Damphering systems, constructions of typical inking systems.
- Sheet handling, controlling and transferring on automatic sheet feeders, frictious feed us.
- Make ready and the machine run, wash-up changing the dompening systems.

COURSE OUTCOMES:

The course outcome will enable the students.

- Describe small offset press.
- Define/Understand the plate & Blanket cylinders.
- Describe paralleling Blanket cylinder to impression cylinder.
- Demonstrate the dampening systems and construction of conventional dampending.
- Classify frictious footers, single sheet feeders, stream feeders.

Syllabus

On completion of this subject the student should be able to

1.0 Offset Lithographic Presses

1.1 Describe Basic principles of Offset Printing.

1.2 Explain Construction/Structure of a sheet fed press.

1.3 Explain various press configurations

1.4 Explain Single colour press, Multicolour press, Perfecting press, Satellite type press, Common impression cylinder press.

1.5 Describe Small Offset press and

1.6 Tell about Proofing press.

2.0 Printing Unit

2.1 Define plate cylinder.

2.2 Explain the blanket cylinder.

2.3 Express impression cylinder, transfer cylinder, delivery cylinder.

2.4 Explain cylinder setting on a Bearer contact press, and Non-Bearer contact Press.

2.5 Describe paralleling Blanket cylinder to Impression cylinder.

2.6 Identify different safety measures in the Pressroom.

2.7 Explain the offset Blanket - Structure, types of blankets.

2.7 Illustrate the working requirements of Blankets

2.8 Explain about blanket selection.

2.9 Discuss the care of Blankets.

2.10 Employ blanket mounting.

2.11 Explain about Recovering from a Blanket smash and use of slightly damaged blankets.

3.0 Inking and Dampening

3.1 Classify the inking system

3.2 Explain the construction of a typical inking system.

3.3 Describe setting ink rollers, setting form roller to oscillator, setting form roller to plate.

3.4 Express inking system and its problems.

3.5 Demonstrate the Dampening System and construction of conventional dampening systems.

3.6 Illustrate the continuous-flow dampening system.

3.7 Explain dampening solutions and its importance, Its composition, alcohol and alcohol

substitutes.

3.8 Identify pH of a dampening solution.

3.9 Illustrate the setting of rollers in conventional dampening system.

3.10 Explain Metering dampening on conventional system.

3.11 Discuss operating problems of dampening systems.

4.0 Sheet Handling, Controlling And Transferring

4.1 Express the purpose of automatic sheet feeders.

4.2 Classify friction feeders- single-sheet feeder, Stream feeder.

4.3 Identify front and back sheet separation systems.

4.5 Describe pile loading.

4.6 Feed Board sheet control devices.

4.7 Practice setting the feed board devices, front lays and side lay and their types.

4.8 Explain sheet detectors and trip systems.

4.9 Classify types of grippers.

4.10 Describe sheet insertion devices - Types and principles, direct system, swing-arm system, rotary drum system, overfeed system.

4.11 Apply care and attention to grippers.

4.12 Explain sheet Transfer and delivery System.

4.13 Categorize the types of sheet transfer - Chain transfer, single drum, and three drum transfer systems.

4.14 Define transfer cylinders.

4.15 Operate delivery section - sheet decurler – joggers.

4.16 Identify sheet guiding devices.

4.17 Identify delivery assist devices.

4.18 Describe suction slow - down rollers.

4.19 Explain blow down wedges.

4.20 Describe anti-set off spray equipment.

5.0 Make-ready and the Machine Run

5.1 Explain pre make ready procedures.

5.2 Describe make ready procedure for single colour.

5.3 Discuss extra precautions required for make ready.

5.4 List different make ready types.

5.5 Demonstrate how to prepare the press for run.

5.6 Explain inking system - wash-up.

5.7 Practice cleaning the dampening system.

5.8 Check work order instructions.

5.9 Set sheet handling devices.

5.10 Install the plate.

5.11 Make trial impressions-examining the trial impressions, image registering and positioning.

5.12 Check quality of print, ink and water balance, colour of print.

5.13 Explain printing defects and their remedy.

5.14 Discuss make-ready procedure for multi colour printing.

5.15 Describe the selection of colour sequence for multi colour printing.

5.16 Classify the types of sheet distortion.

5.17 Indicate the ideal condition of paper for registering purposes.

5.18 Run the machine for production.

5.19 Explain the inspection of press sheets, random check-up.

5.20 Control press functions during pressrun.

5.21 Analyse quality control during the pressrun.

5.22 Use densitometry, colour control bars, controlling colour during the pressrun.

5.23 Employ pressroom lighting and standard viewing conditions.

1.0 Introduction to Web Offset Printing Press

1.1 Explain structure and type of presses - In-line press, stack press, Blanket to Blanket,

common impression.

1.2 Describe infeed, printing unit, Drying, Chilling, Folding and Delivery.

1.3 Define blanket to blanket printing.

1.4 Compare plate cylinder, blanket cylinder and Gap-less cylinder.

2.0 Make-ready and Feeding Unit

2.1 Explain infeed - Types of reel stands, automatic splicers, preparing a splice, dancer roller.

2.2 Explain reel braking method.

2.3 Identify image and web control: Side lay, back up, slitting.

2.4 Illustrate colour registering and web tensioning.

2.5 Describe feeder - Preset feeder, Vacuum belt sheet forwarding system.

2.6 Indicate motorized side-lay control.

3.0 Printing Unit

3.1 Explain inking and Dampening - motorized adjustment of ink zones and ink metering cylinder.

3.2 Appraise water cooled oscillating roller

3.3 Discuss ink wash up device.

3.4 Identify remote ON/OFF dampening system and dampening solution control.

3.5 Explain printing unit - Automatic plate clamping.

3.6 Indicate adjustment of circumferential and lateral register.

3.7 Explain printing pressure adjustment.

3.8 Explain automatic blanket and impression cylinder wash-up device.

3.9 Identify dryer and chill rolls: Types of dryers, types of chill roll pumping.

3.10 Define and explain computer print control, press monitoring.

3.11 Explain pre selection of operation in the press.

4.0 Delivery Unit

4.1 Explain folding - Web folding principles, folder types, cut off length, pinless folder.

4.2 Describe delivery - Automatic setting of powder spray length.

4.3 Explain IR and UV dryers.

4.4 Explain and compare auxiliary equipments - Sidelay sensors, web break detectors, anti-static devices, perforators, Imprinters, fountain solutions recirculation and refrigerating system, sheet cleaners, plate scanner, Ink agitator, Fountain height monitor, ink consumption computer, Air curtain.

Course content

Unit I - Offset Lithographic Presses

Basic principles of Offset Printing-Construction/Structure of a sheet fed press-Various press configurations -Single colour press, Multicolour press, Perfecting press, Satellite type press, Common impression cylinder press-Small Offset press and-Proofing press.

Unit II - Printing Unit

Plate cylinder-Blanket cylinder-Impression cylinder, transfer cylinder, delivery cylinder-Cylinder setting on a Bearer contact press, and Non-Bearer contact Press-Paralleling Blanket cylinder to Impression cylinder-Safety measures in the Pressroom-The Offset Blanket - Structure, types of blankets-Working requirements of Blankets-Blanket selection-Care of Blankets-Blanket mounting. Recovering from a Blanket smash and use of slightly damaged blankets.

Unit III - Inking and Dampening

The inking system - Construction of a typical inking system-Setting ink rollers, setting from roller to oscillator, setting form roller to plate-Setting the ductor roller-Inking system – Problems-The Dampening System - Construction of conventional dampening systems-Continuous-flow dampening system-Dampening solutions and its importance - Its composition, alcohol and alcohol substitutes-pH of a dampening solution-Setting of rollers in conventional dampening system. Metering dampening on conventional system-Operating problems of dampening systems.

Unit IV - Sheet Handling, Controlling And Transferring

Purpose of automatic sheet feeders-Classification - friction feeders, single-sheet feeder, Stream feeder-Front and back sheet separation systems-Pile loading-Feed Board sheet control devices. Setting the feed board devices, front lays and side lay and their types-Sheet detectors and trip systems-Type of grippers-Sheet insertion devices - Types and principles, direct system, swing-arm system, rotary drum system, overfeed system-Care and attention to grippers-Sheet Transfer and delivery System-Types of sheet transfer - Chain transfer, single drum, and three drum transfer systems-Transfer cylinders-Delivery section - sheet decurler – joggers-Sheet guiding devices. Delivery assist devices-Suction slow - down rollers-Blow down wedges and - Anti-set off spray equipment.

Unit V - Make-ready and the Machine Run

Pre make ready procedures-Make ready procedure for single colour-Extra precautions required for make ready-Make ready types-Preparing the press for run-Inking system - wash-up-Cleaning the dampening system-Checking work order instructions-Setting sheet handling devices-Installing the plate-Making trial impressions – examining the trial impressions, image registering and positioning-Checking quality of print, ink and water balance, colour of print-Printing defects and their remedy-Make-ready procedure for multi colour printing-Selection of colour sequence for multi colour printing-Types of sheet distortion-Ideal condition of paper for registering purposes-Running the machine for production-Inspection of press sheets, random check-up-Control of press functions during pressrun-Quality control during the pressrun-Densitometry, colour control bars, controlling colour during the pressrun-Pressroom lighting and standard viewing conditions.

Unit I - Introduction to Web Offset Printing Press

Structure and type of presses - In-line press, stack press, Blanket to Blanket, common impression-Infeed, Printing unit, Drying, Chilling, Folding and Delivery-Blanket to blanket printing-The plate cylinder, blanket cylinder and Gap-less cylinder.

Unit II - Make-ready and Feeding Unit

Infeed - Types of reel stands, automatic splicers, preparing a splice, dancer roller-Reel braking method-Image and web control: Side lay, back up, slitting-Colour registering and web tensioning-Feeder - Preset feeder, Vacuum belt sheet forwarding system-Motorized side lay control.

Unit III - Printing Unit

Inking and Dampening - motorized adjustment of ink zones and ink metering cylinder-Water cooled oscillating roller-Ink wash up device-Remote ON/OFF dampening system and dampening solution control-Printing unit - Automatic plate clamping-Adjustment of circumferential and lateral register-Printing pressure adjustment-Automatic blanket and impression cylinder wash-up device-

Dryer and chill rolls: Types of dryers, types of chill roll pumping-Computer print control, press monitoring-Pre selection of operation in the press.

Unit IV - Delivery Unit

Folding - Web folding principles, folder types, cut off length, pinless folder-Delivery – Automatic setting of powder spray length-IR and UV dryers-Auxiliary equipments - Sidelay sensors, web break detectors, anti-static devices, perforators, Imprinters, fountain solutions recirculation and refrigerating system, sheet cleaners, plate scanner, Ink agitator, Fountain height monitor, ink consumption computer, Air curtain.

Reference Books

Sheetfed offset operating - GATF 1988 Litho Printing - Ian Faux, Blueprint publishing Ltd. A manual of Lithographic press operations - A.S. Porter, Lithographic Training services. Modern Lithography - Ian Faux, SITA Limited, Manchester, UK

Web Offset Press operating - David B. Crouse with Robert J. Schneider, Jr., GATF.

Sheet fed press operating – GATF.

Modern Lithography - Iaun Fax, SITA Limited, Manchester.

A manual of Lithographic press operation - A.S. Porter.

Lithographic Training services.Printing in a digital world - David Bergsland, Delmar Publishers International Thompson Publishing, New York. Gutenberg goes digital - Michael Liburg - Blueprint, an Imprint of Chapman & Hall.

A Handbook for printing and packaging Technology – Bighwenath

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MODEL QUESTION PAPER

DIPLOMA IN PRINTING TECHNOLOGY

II SEMESTER END EXAMINATIONS

Class : DIPLOMA IN PRINTING TECHNOLOGY Max Marks : 75
Subject : PRINTING TECHNOLOGY Pass Mark : 30
Title of the paper :SHEEDFED OFFSET MECHINES Time Duration : 3Hrs

SECTION – A

Answer ALL the questions: 5X10=50M

1. a)Write about Basic principles of Offset printing & explain it.

(OR)

b) What do you know about blanket cylinder? Mention the types of blankets.

2. a) What do you know about construction structure of a sheet fed press? Explain it in detail with a neat diagram.

(OR)

b) State in detail about the inking system. What do you know about construction of typical inking system.

3. a) Explain about any two configurations you know in sheet fed offset machines?

(OR)

b) Classify sheet feeders you find on an offset press. Explain about each one of them?

4. a) Explain the safety measures in the press room?

(OR)

b) Explain the common printing defects and mention the causes and remedies?

5 a) Explain about pre make ready and make ready operation on sheet fed off set presses?

(OR)

b) How does CTP machine function? Explain its features.

SECTION -B

Answer any FIVE questions from the following: **5X5=25M**

6) Define Small off set press?

7) What do you understand by re-rendered jobs?

8) What do you understand P^H of dampening solution?

9) Explain ink-water balance?

10) State the function of front and side lays?

11) State the purpose of automatic sheet feeders?

12) Explain briefly about dampening solutions?

13) Explain Make ready?

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

UGC Scheme of Community Colleges

DIPLOMA IN PRINTING TECHNOLOGY (ONE YEAR COURSE)

PUBLISHING SOFTWARES

Subject title : Publishing Software

Subject code : DPT-PS- 524 A (WEF: 2018-19)

Periods per week : 03

Periods/Semester : 65

Credits : 03

Sl. No.	Major Topics	Periods	Weightage of Marks
1	PageMaker	15	10
2	QuarkXpress	10	15
3	CorelDraw	10	20
4	Photoshop	15	15
5	Indesign	15	15
Total		65	75

Class	Semester	Title of The Paper	Paper Code	W.E.F
Printing & Technology	II	Publishing Software	DPT – PS-524A	2018-19

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
65	05		03	25	75	05

COURSE OBJECTIVES:

The course objectives of the topic is to make the students to learn

- Adobe page maker
- Quark xpress
- Corel Draw
- Photoshop
- Indesign

COURSE OUTCOMES:

On completion of the course the students will learn to

- Create a publication, page layout, page set up.
- Apply quack xpress for drawing boxes lines and tables, brackets and layouts.
- Use the tools in corel draw, to create new documents, saving the printing documents
- To utilize the tools of photo shop for viewing images, moving selections, vector mask and quick mask.
- Create a new document in design, working with frames, working with multiple document windows.

COURSE CONTENT

UNIT I: Adobe Page Maker:

Creating a Publication…Page layout … Page setup … Creating page numbering for facing pages ... Document setup… Placing Images and Text…Paste Multiple and Inserting Objects…Tool box and Color box…New color creation… Editing stories…Using Auto flow… inserting and deleting pages…using column guides…Type setting…font properties…character and paragraph settings… Text wrapping …Grouping and ungrouping…masking and unmasking…Frame options… Polygon settings …Aligning objects…Creating booklet…create index and TOC…Print dialogue box..

Unit II: QuarkXpress

Introduction to QuarkXpress; The User Interface; Projects and Layouts; Boxes Lines and Tables; QuarkXpress Tools…Text and Typography; Working with Pictures; Working with Colour; Objects and Frames…Document Construction

Unit III: CorelDraw

Creating new document…Using tool box… Saving and printing document .. Page layout and page setup .. Inserting, duplicating and deleting pages…publishing to PDF…importing and exporting images…duplicating and cloning objects,…inserting page numbers.. page backgrounds…using symbol manager…transformations… aligning, grouping & ungrouping, locking and unlocking objects…Using Power clip … shaping options…combining and breaking objects…Table Menu commands..

Unit IV: Photoshop

Starting Adobe Photoshop and Opening Files; Using Tools - Entering Values, Viewing Images, ; Working with Selections – Moving Selections, Photoshop Tools; Layer Basics – Creating and Viewing layers, Rearranging layers; Layer Mask, Clipping Mask, Vector Mask and Quick Mask; Photo Retouching Tools; Pen Tools; Vector Shapes and Stroke path and Clipping Paths..

Unit V: Indesign

Creating a New Document – Working with Frames, working with text; Working with Multiple Document Windows – Saving Documents; Using Tools; Working with Panels and Docks – Adding pages Deleting pages; Menu Commands; Working with Pages and Layers – Creating layers, working with layers; Creating Layout Standards; Defining Colours –Colour terms, Tints, Gradients; Creating Graphic frames ..Paste..paste into..paste without format ..Paste in to place ..duplicate ..step and repeat ..place and link ..Edit with other ..character ..paragraph ..Transform..Arranging objects..Text frame options..fitting options..effects submenu ..convert shape.

REFERENCE BOOKS

1. Manuals of PageMaker,
2. Manuals of Photoshop
3. Manuals of InDesign
4. Manuals of QuarkXpress

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MODEL QUESTION PAPER

DIPLOMA IN PRINTING TECHNOLOGY

II SEMESTER END EXAMINATIONS

Class : DIPLOMA IN PRINTING TECHNOLOGY Max Marks : 75

Subject : PRINTING TECHNOLOGY Pass Mark : 30

Title of the paper :PUBLISHING SOFTWAREs Time :

Paper Code : DPT-PS 524 **A** **(WEF: 2018-19)** Duration : 3Hrs

Date :

SECTION – A

Answer ALL the questions **5X10=50M**

1. a) Write PageMaker Tools.

(OR)

b) Describe Frame Options in PageMaker.

2. a) Give a detailed study Transforamtions in Photoshop.

(OR)

b) Give an over view of Type tools used in photoshop.

3. a) Explain Marquee Tools in Photoshop with examples.

(OR)

b) Write about PowerClip in CorelDRaw.

4. a) Write detailed note on Indesign Tools.

(OR)

b) Discuss the tools in QuarkXpress.

5. a) Write about COREL DRAW and features, symbols.

(OR)

b) How are images exported from CorelDraw in different formats?

SECTION -B

Answer any FIVE questions from the following: 5X5=25M

6. What is an Free form Pen tool?

7. What is Autoflow?

8. What do you mean by layers?

9. What is a Layer Mask?

10. Explain three kinds of Layers.

11. Write about Indesign Collector Tools?

12. What is photo shop?

13. Explain Image importing options.

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

UGC Scheme of Community Colleges

DIPLOMA IN PRINTING TECHNOLOGY (ONE YEAR COURSE)

ELECTRONIC COLOUR SEPARATION & MANAGEMENT

Subject title : Electronic Colour Separation & Management

Subject code : DPT-ECSM- 525

Periods per week : 04
Total periods per Semester : 60

Credits : 04

TIME SCHEDULE

S. No	Major Topics	Periods	Weightage of Marks
1.	Colour Measurement	10	10
2.	Colour Reproduction	15	20
3.	Colour Separation	15	15
4.	Developments in Electronic Scanning	10	15
5.	Colour Proofing	10	15
Total		**60**	**75**

Class	Semester	Title of The Paper	Paper Code	W.E.F
Printing & Technology	II	Electronic colour separation in Management	DPT – ECSM - 525	June 2018

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
60	04		03	25	75	04

COURSE OBJECTIVES:

The course will make the students learn

- Colour Measurement
- Colour reproduction
- Colour separation
- Developments in Electronic scanning
- Colour proofing.

COURSE OUTCOME:

On completion of the course the students will be able to

- Apply colour measuring methods.
- Use the tools like densitometry.
- To examine originals and print viewing conditions.
- Define principles of electronic colour separation on CTP
- To empty colour separation in flatbed scanners, register systems, pre press and press proofing systems

SYLLABUS:

On completion of this subject the student should be able to

1.0 Colour Measurement

1.1 To discuss measurement of colour

1.2 To indicate Colour difference measurement

1.3 To apply Densitometry, Colorimetry and Spectrophotometry

2.0 Colour Reproduction

2.1 To examine Originals and Print viewing conditions

2.2 To recall different originals

2.3 To review CIE chromaticity diagram

3.0 Colour Separation

3.1 To discuss out lines of colour separation

3.2 To define principles of electronic colour separation on CTP

3.3 To apply Gray component Replacement.

3.4 To identify Line mode in Scanners

4.0 Developments in Electronic Scanning

4.1 To employ Colour separation in flatbed scanners used in Desktop Publishing

4.2 To use register systems

4.3 To appraise laser principles

5.0 Colour Proofing

5.1 To employ the pre press and press proofing systems

5.2 To discuss Digital colour proofing and hexachrome (hi fi) Close colors

5.3 To identify the uses and limitations of colour chart.

5.4 To relate 3M match print colour control element.

5.4 To analyse FOGRA standards.

COURSE CONTENTS:

1. Colour Measurement

Methods of colour measurement (colour tolerance) – colour gamut, colour models, HSL, HSB, C.I.E. -Colour matching -Colour difference measurement

Instrumental measurement of colour – Densitometry, Colorimetry and Spectrophotometry.

2. Colour Reproduction

Originals and Print viewing conditions - originals for colour reproduction - colourprints,contrast range, colour balance and surface reflection , wash drawings and pastel colour originals , printed originals

Spectrophotometric curves for photographic materials.

Colour Diagrams and their uses- CIE chromaticity diagram, Maxwell Additive Triangle, GATF colour circle.

3.0 Colour Separation

Out lines of colour separation- direct and indirect methods-

electronic colour scanners- Types, principles and functions

Colour separation on CTP

Colour cast removal

Tonal changes - colour correction - Gray Balance setup procedure.

Under colour addition, under colour removal - Gray component Replacement.

Line mode in Scanners.

4. Developments in Electronic Scanning

Colour separation in flatbed scanners used in Desktop Publishing.

Register systems for Perfect Registration.

Lasers - Principles of operation, types, characteristics.

5. Colour Proofing

Press and Pre-press proofing systems.

Digital colour proofing, study of hexachrome (hi fi) close colors

Uses and limitations of colour chart - 3M match print colour control element.

FOGRA standards.

Reference Books

Reproduction Photography for Lithography - GATF. Electronic colour separation - Dr.R.K.Molla, R.K.Printing and Publishing Company, West Virgina, U.S.A. Standardized Lithographic colour printing - PIRA Guide. Reproduction of colour - R.W.G. Hunt, Fountain Press.

Colour photography and the ink, paper and other related industries - John Wiley & Sons, U.K. The Lithographers manual - 7th Edition - GATF. The Lithographers manual - 9th Edition - GATF.The art of colour- Johannes Ittem, Digital colour Printing Technology- BiswanthChakravarthyColour and Quality- by Hidelberg, Desk Top Publishing- by Ron Strutt and Kirty Wilson Davis, Understanding Digital Colour- by Phol Green.

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MODEL QUESTION PAPER
DIPLOMA IN PRINTING TECHNOLOGY
II SEMESTER END EXAMINATIONS

Class	: DIPLOMA IN PRINTING TECHNOLOGY	Max Marks : 75
Subject	: PRINTING TECHNOLOGY	Pass Mark : 30
Title of the paper	:ELECTRONIC COLOUR SEPERATION	Time Duration : 3Hrs
Paper Code	: DPT-ECSM-525	Date :

SECTION – A

Answer ALL the questions **5X10=50M**

a. Write about the history and principles of colour reproduction?

(OR)

b.Write about additive and subtractive theories?

4. **a.**Describe colour separation procedures and requirements of colour separation?

(OR)

b.Write about the value of colour and use of colour filters?

5. **a.**Write about electronic colour scanner and the classification of scanners?

(OR)

b.Define electronic sensor technology for colour scanners?

6. **a.**Describe in brief about the image adjustments for the electronic colour separation?

(OR)

b.Write about evolution and testing of DTP Scanners and development of geometric calibration procedures?

7. **a.**Describe ink trapping & tone reproduction?

(OR)

b.Describe about matching the proof to the characteristics in conventional proofing?

SECTION -B

Answer any FIVE questions from the following: 5X5=25M

6.Write about press and pre-press proofing systems?

7.What is digital proofing, explain in brief?

8.What is collimation?

9.Write about hard copy digital colour proofing?

10. Write about pantone spot colour solutions?

11. What are the uses and limitations of colour charts?

12. Write about the fusing process in a laser printer?

13. Write about electro photography?

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

UGC Scheme of Community Colleges

DIPLOMA IN PRINTING TECHNOLOGY (ONE YEAR COURSE)

MODERN PLATE MAKING TECHNIQUES

Subject title : **Modern Plate Making Methods**

Subject code : **DPT-MPMT-526**

Periods per week : **03**

Periods / Semester : **45**

Credits : **03**

TIME SCHEDULE

S. No	Major Topics	Periods	Weightage of Marks
1.	Job Planning and Film Assembly	08	15
2.	Imposition Considerations	07	10
3.	Lithographic plate Surface Chemistry	10	20
4.	Computer to technologies and Computer to Film; Computer to Press	10	15
5.	Computer to Plate	10	15
Total		**45**	**75**

Class	Semester	Title of The Paper	Paper Code	W.E.F
Printing & Technology	II	Modern Plate Making Techniques	DPT – MPMT - 526	June 2018

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
45	03		03	25	75	03

COURSE OBJECTIVES:

The course will enable the students to learn

- Job planning & Film Assembly.
- Imposition considerations
- Lithographic plate surface chemistry.
- Computer to film, computer to p…. technologies
- Computer to plate technologies.

COURSE OUTCOMES:

On completion of the course the students learn to

- Examine top planning, basic steps in planning of film assembly
- Discuss imposition considerations for sheet feed/web process.
- Identify plate making equipments like whiler pressure vaccum printing down frame etc.
- Use computer to film/plate/press technologies and networking for production of print media.
- Use the technology for imaging methods and plate puncting, printing plate for Digital imaging.

OBJECTIVES:

On completion of this subject the student should be able to

1.0 Job Planning & Film Assembly

1.1 Examine job planning & importance of Planning
1.2 Basic steps in planning o film image assembly
1.3 Introduce film image assembly

1.4 Inspection & preparation of films before assembly
1.5 Planning of Layouts
1.6 Layout and Planning information
1.7 Preparation of Production Layouts
1.8 Equipment & Tools for Layout department
1.9 Preparing Complimentary Flats

2.0 Imposition Considerations

2.1 Discuss Imposition Considerations for sheet fed presses & Web fed presses
2.2 Imposition terms & Imposition rules
2.3 Imposition schemes for printing bookwork
2.4 Full sheet work; work-and-turn; work-and-tumble

3.0 Lithographic Plate surface chemistry

3.1 Classify main types of lithographic plates
3.2 Identify Plate making equipments – whirler, pressure vacuum printing down frame
3.3 List out Plate making materials
3.4 Define Plate graining
3.5 List out processing chemicals
3.6 Explain Chemistry of plate making
3.7 Discuss how to Control plate making variables - use of plate sensitivity
3.8 Control the tone values-use of GATF star target and other devices, continuous tone step wedge
3.9 Use Quality control devices used in plate making department.

4.0 Computer to technologies and Computer to Film; Computer to Press

4.1 The use of Computer to Film/Plate/Press technologies and Networking for the Production of Print Media
4.2 Computer to Film
4.3 Principles & Equipment; Film Materials for CTF
4.4 Introduction to Computer to Press
4.5 Re-Imageable Printing Plate
4.6 Direct Imaging presses for Larger sheet formats
4.7 Further Concepts for Computer to Press

5.0 Computer to Plate

5.1 Introduction to Computer to Plate
5.2 Technology of Computer to Plate systems for Offset Printing
5.3 Imaging methods & Plate Punching
5.4 Computer to Plate systems for Offset Printing
5.5 Computer to Plate Workflow
5.6 Rise in Quality as a result of Computer to Plate
5.7 Printing plates for Digital Imaging
5.8 Trends in Computer to Plate

COURSE CONTENT:

Unit I – **Job Planning & Film Assembly**

Examine job planning & importance of Planning - Basic steps in planning o film image assembly - Introduce film image assembly - Inspection & preparation of films before assembly - Planning of Layouts - Layout and Planning information - Preparation of Production Layouts - Equipment & Tools for Layout department - Preparing Complimentary Flats

Unit II Imposition Considerations

Discuss Imposition Considerations for sheet fed presses & Web fed presses - Imposition terms & Imposition rules - Imposition schemes for printing bookwork - Full sheet work; work-and-turn; work-and-tumble

Unit III - Lithographic Plate surface chemistry

Classify main types of lithographic plates - Identify Plate making equipments – whirler, pressure vacuum printing down frame - List out Plate making materials - Define Plate graining - List out processing chemicals - Explain Chemistry of plate making - Discuss how to Control plate making variables - use of plate sensitivity - Control the tone values-use of GATF star target and other devices, continuous tone step wedge - Use Quality control devices used in plate making department.

Unit IV - Computer to technologies and Computer to Film; Computer to Press

The use of Computer to Film/Plate/Press technologies and Networking for the Production of Print Media - Computer to FilmPrinciples& Equipment - Film Materials for CTF - Introduction to Computer to Press - Re-Imageable Printing Plate - Direct Imaging presses for Larger sheet formats - Further Concepts for Computer to Press

Unit V - Computer to Plate

Introduction to Computer to Plate - Technology of Computer to Plate systems for Offset Printing - Imaging methods & Plate Punching - Computer to Plate systems for Offset Printing - Computer to Plate Workflow - Rise in Quality as a result of Computer to Plate - Printing plates for Digital Imaging - Trends in Computer to Plate

Reference Books:Modern film planning and plate making - AL Gate house and Kn Roper,

SITA Limited England Stripping:

The assembly of film images - GATF Offset lithographic plate making Robert F Reed,

GATF the lithographers manual - 7th edition, GATF the lithographers manual - 9th edition

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MODEL QUESTION PAPER
DIPLOMA IN PRINTING TECHNOLOGY
IISEMESTER END EXAMINATIONS

Class : DIPLOMA IN PRINTING TECHNOLOGY Max Marks : 75
Subject : PRINTING TECHNOLOGY Pass Mark : 30
Title of the paper :MODERN PLATE MAKING TECHNIQUES Time :
Paper Code : DPT-MPMT-526 Duration : 3Hrs
Date :

SECTION – A

Answer ALL the questions **5X10=50M**

1. **a.** Write in detail about the importance of image assembly?

(OR)

b.Write about a) Paper gripper allowance

b) Plate clamp allowance

2. **a.**Write briefly about each step in planning a film assembly?

(OR)

b.What are the factors of binding that will influence the imposition scheme?

3. **a**. Explain about the negative assembly method of working?

(OR)

b.Write about step and repeat machine functioning and its advantage?

4. **a**.Explain about the plate making materials and their importance?

(OR)

b.Explain how do you do graining of a plate and its importance for a printing job?

5. **a**. Write in detail about the Albumen surface plate preparation?

(OR)

b.Write about 1) Developing Ink 2) Pre Etching

SECTION -B

Answer any FIVE questions from the following: 5X5=25M

6. Write about types of images?

7.Write about sheet grain direction?

8. What is readers spread, explain?

9.Draw 8 page imposition scheme and explain?

10. What is the use of a complementary flat?

11. Write about positive working system?

12. Why is ammonium dichromate used in coating solution and what is the role of it?

13. Write about 'Cornac' treatment and ingredients in it?