

# FACULTY OF ENGINEERING AND TECHNOLOGY

## Syllabus

For

### BACHELOR OF VOCATION (B.VOC.) (PRINTING TECHNOLOGY) (Semester: I – VI)

Session: 2019-20



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## GURU NANAK DEV UNIVERSITY AMRITSAR

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*Bachelor of Vocation (B.Voc.)*  
*(Printing Technology) Semester System*

**Eligibility:**

+2 pass in any stream

**Scheme of Syllabus****Semester – I:**

<b>Paper No.</b>	<b>Paper</b>	<b>M. Marks</b>
Paper-I	Fundamentals of Printing Technology	50
Paper-II	Introduction to Information Technology	50
Paper-III	Web Technology	50
Paper-IV	Lab- I : Typing Skills	75
Paper-V	Lab-II: Office Automation Tools & Web Technology	75
Paper-VI	Communication Skills in English – I	50
Paper-VII	Punjabi (Compulsory) / ** ਮੁੱਢਲੀ ਪੰਜਾਬੀ / ** Punjab History & Culture (From Earliest Times to C 320)	50
Paper-VIII	* Drug Abuse: Problem, Management and Prevention (Compulsory Paper)	50
<b>Total:</b>		<b>400</b>

**Semester – II:**

<b>Paper No.</b>	<b>Paper</b>	<b>M. Marks</b>
Paper-I	Multimedia and its Applications	50
Paper-II	Printing Process & Techniques	50
Paper-III	Lab-I: Corel Draw	50
Paper-IV	Lab II: Adobe PageMaker	75
Paper-V	Lab-III: Printing Process	75
Paper-VI	Communication Skills in English – II (Th. 35 + Pr. 15)	50
Paper-VII	Punjabi (Compulsory) / ** ਮੁੱਢਲੀ ਪੰਜਾਬੀ / ** Punjab History & Culture (C 320 TO 1000 B.C.)	50
Paper-VIII	* Drug Abuse: Problem, Management and Prevention (Compulsory Paper)	50
<b>Total:</b>		<b>400</b>

**Note: \* Marks of this Paper will not be included in the Total Marks.****\*\* (Special Paper in lieu of Punjabi Compulsory)****(For those students who are not domicile of Punjab)**

*Bachelor of Vocation (B.Voc.)  
(Printing Technology) Semester System*

**Semester – III:**

<b>Paper No.</b>	<b>Paper</b>	<b>M. Marks</b>
Paper–I	Modern Trends in Printing	50
Paper–II	Planning & Design for Printing	50
Paper–III	Tone & Color Analysis	50
Paper–IV	Copyright & Publishing Ethics	50
Paper–V	Lab–I : Microsoft Publisher	100
Paper–VI	Lab–II: Adobe Photoshop & Illustrator	100
<b>Total:</b>		<b>400</b>

**Semester – IV:**

<b>Paper No.</b>	<b>Paper</b>	<b>M. Marks</b>
Paper–I	Screen Printing & Gravure	50
Paper–II	Newspaper & Periodical Publishing	50
Paper–III	Digital Pre–Press	50
Paper–IV	Data Communication and Networks	50
Paper–V	Lab–I: Screen printing and Offset Platemaking	100
Paper–VI	Lab–II: Adobe Indesign	100
Paper–VII (ESL-221)	*Environmental Studies	100
<b>Total:</b>		<b>400</b>

**\* Marks of Environmental Studies not included in Total Marks**

*Bachelor of Vocation (B.Voc.)  
(Printing Technology) Semester System*

**Semester – V:**

<b>Paper No.</b>	<b>Paper</b>	<b>M. Marks</b>
Paper-I	Digital Printing	50
Paper-II	Book Publishing	50
Paper-III	E- Publishing	50
Paper-IV	Lab I: Practical Based on Plotter Printing and Process	75
Paper-V	Lab II: Practical Based on Binding and Finishing	75
Paper-VI	Workshop	100
<b>Total:</b>		<b>400</b>

**Semester – VI:**

<b>Paper No.</b>	<b>Paper</b>	<b>M. Marks</b>
Paper-I	Project Dissertation (Major Project /Training in Any Publishing House/ Newspaper Publishing Press)	400
<b>Total:</b>		<b>400</b>

*Bachelor of Vocation (B.Voc.)*  
*(Printing Technology) Semester – I*

**Paper–I: Fundamentals of Printing Technology**

**Time: 3 Hrs.**

**Max. Marks: 50**

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**The student can use only Non-programmable & Non-storage type calculator.**

Section A

**Concepts in Printing Technology:**– Color Separation, Paper Selection and Quality and types of inks, Negative, Typography, Copy Fitting, Plate Making, Negative, Positive, Tracing Output, etc.  
8 Hrs

Section B

**Basic Operations in Printing:** Pre press, press and post press operations.

5 Hrs

**Color Separation:** Concept, Need for Color Separation, RGB (Red, Green, Blue) Values  
CMYK (Cyan, Magenta, Yellow, Black) Values

4 Hrs

Section C

**Impact And Non– Impact Printing Technologies:** Perspective, Plotters, Wire Matrix Printers, other Impact printing technologies, Principles of electro photographic, magneto and ionographic printing, sublimation, thermal, inkjet

14 Hrs

Non Impact printing Technologies Variable data, Variable Graphic printing; Designing and generation of variable contents.

12 Hrs

Section D

**Printing Machines and Quality Control:** Construction and mechanism of printing, Troubleshooting and remedies, Quality consciousness, quality control devices, Quality control at different stages

12 Hrs

**Running Defects:** Common Printing faults, causes and their remedies.

5 Hrs

**References:**–

1. Printing Technology by Adams, Faux, Rieber
2. Introduction to Printing Technology by Hugh M.Speirs

**Paper–II: Introduction to Information Technology**

**Time: 3 Hrs.**

**Max. Marks: 50**

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**The student can use only Non-programmable & Non-storage type calculator.**

Section A

**An Overview of Computer System:**– Anatomy of a Digital computer, Memory Units, Main and Auxiliary Storage Devices, Input devices , Output Devices, Classification of computers, radix Number system: decimal, Binary, Octal, Hexadecimal Numbers and their inter- conversions; Representation of information inside the computers.

15 Hrs

Section B

**Operating System Basics:** The user interface, Running Programmes, Managing files, Introduction to PC Operating systems: LINUX/Unix, DOS, Windows XP.

12 Hrs

Section C

**Internet Basics:** Introduction to the basic concepts of Networks and Data Communications, How Internet works, Major Features of Internet, Emails, FTP, Using the internet.

14 Hrs

Section D

**Display Devices: CRT Displays**– Display adapter CGA, VGA SVGA– Resolutions (Application oriented Discussion)

9 Hrs

**Input/ Output Devices** –Keyboard, Mouse, Scanners, Printers, Dot Matrix, Ink Jet, Laser, CCD Camera, Grabber Card.

10 Hrs

**References:**

1. Computer Fundamentals by P.K.Sinha
2. Introduction to Computers by Peter Norton, McGraw Hill

**Paper III: Web Technology**

**Time: 3 Hrs.**

**Max. Marks: 50**

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**The student can use only Non-programmable & Non-storage type calculator.**

Section A

**Introduction to Web Development**

Webpage, Website, Static Website, Dynamic Website, Web Servers, Web Browsers

**[10 Hrs.]**

**Introduction to HTML/DHTML**

HTML Basics, HTML Elements (Tags), Structure of HTML Program, Attributes, Headings, Paragraphs, Formatting, Links, Images, Tables, Lists, Forms, Frames, Where to put Tables, Lists, Images, Forms, CSS in DHTML, Implementation of WebPages using CSS.

**[15 Hrs.]**

Section B

**Introduction to JavaScript:**

How & Where to put the JavaScript Code, JavaScript Statements, Comments, Variables, Operators, Control Statements, Loops, Popup Boxes, Functions.

**[10 Hrs.]**

Section C

**Introduction to Dreamweaver**

Understanding Workspace Layout, Managing Websites, Creating a Website, Using Dreamweaver Templates, Adding New WebPages, Text and Page Format, Inserting Tables, Lists, Images, Adding Links.

Section D

**Purchasing a Domain Name & Web Space**

Domain Name & Web Space, Getting a Domain Name & Web Space (Purchase or Free), Uploading the Website to Remote Server.

**[15 Hrs.]**

**[10 Hrs.]**

**Suggested Readings / Books:**

1. Web Enabled Commercial Application Development HTML (Ivan Bayross)
2. JavaScript, a Beginner's Guide John Pollock, Third Edition
3. Dreamweaver CS5 for Dummies Janine C. Warner, Paperback Edition
4. The Essential Guide to Dreamweaver CS4 David Powers

**Paper IV: Lab–I: Typing Skills**

**M.Marks: 75**

- Typing in Punjabi, English
- Working With Different Punjabi Fonts & Styles
- Keyboarding techniques for letter Keys & special Keys
- Keyboarding Posture & Finger placement
- Typing skills using typing Tutor Software
- Word Processing: Presentation of documents, inserting a Table, Advanced Table Features, Graph and Data interpretation, Grammar and basic Vocabulary, Mail – Merge, creating Newsletters, Tri– fold brochures, letters, Formatted Text & Pictures.



**Paper V: Lab–II: Office Automation Tools & Web Technology**

**M.Marks: 75**

**Microsoft Office Word:**

Introduction, text formatting, creating tables, page layout

**Microsoft Office Excel:**

Introduction, Formatting Process Using Formulas & Function, Charts, Datasets & Tables

**Microsoft Office Power Point:**

Introduction, Creating Presentation using templates, creating outlines, data imports, Presentation design using smart art & Word Art, inserting Images, Videos, audio, Creating Photo Album

**Web Technology:**

HTML, DHTML, Dreamweaver

*Bachelor of Vocation (B.Voc.)*  
*(Printing Technology) Semester – I*

PAPER–VI: COMMUNICATION SKILLS IN ENGLISH – I

Time: 3 Hours

Max. Marks: 50

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

The syllabus is divided in four sections as mentioned below:

Section–A

Reading Skills: Reading Tactics and strategies; Reading purposes–kinds of purposes and associated comprehension; Reading for direct meanings.

Section–B

Reading for understanding concepts, details, coherence, logical progression and meanings of phrases/ expressions.

Activities:

- Comprehension questions in multiple choice format
- Short comprehension questions based on content and development of ideas

Section–C

Writing Skills: Guidelines for effective writing; writing styles for application, personal letter, official/ business letter.

Activities:

- Formatting personal and business letters.
- Organising the details in a sequential order

Section–D

Resume, memo, notices etc.; outline and revision.

Activities:

- Converting a biographical note into a sequenced resume or vice-versa
- Ordering and sub-dividing the contents while making notes.
- Writing notices for circulation/ boards

Recommended Books:

- Oxford Guide to Effective Writing and Speaking by John Seely.
- English Grammar in Use (Fourth Edition) by Raymond Murphy, CUP

PAPER-VII: ਪੰਜਾਬੀ (ਲਾਜ਼ਮੀ)

ਸਮਾਂ : 3 ਘੰਟੇ

ਕੁਲ ਅੰਕ : 50

ਪਾਠ-ਕ੍ਰਮ ਅਤੇ ਪਾਠ-ਪੁਸਤਕਾਂ

**ਸੈਕਸ਼ਨ-ਏ**

ਆਤਮ ਅਨਾਤਮ (ਕਵਿਤਾ ਭਾਗ),  
(ਸੰਪ. ਸੁਹਿੰਦਰ ਬੀਰ ਅਤੇ ਵਰਿਆਮ ਸਿੰਘ ਸੰਧੂ)  
ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ।  
(ਪ੍ਰਸ਼ੰਸਾ ਸਾਹਿਤ ਵਿਆਖਿਆ, ਸਾਰ )

**ਸੈਕਸ਼ਨ-ਬੀ**

ਇਤਿਹਾਸਕ ਯਾਦਾਂ (ਇਤਿਹਾਸਕ ਲੇਖ-ਸੰਗ੍ਰਹਿ)  
ਸੰਪਾ. ਸ.ਸ.ਅਮੋਲ,  
ਪੰਜਾਬੀ ਸਾਹਿਤ ਪ੍ਰਕਾਸ਼ਨ, ਲੁਧਿਆਣਾ। (ਲੇਖ 1 ਤੋਂ 6)  
(ਨਿਬੰਧ ਦਾ ਸਾਰ, ਲਿਖਣ-ਸ਼ੈਲੀ)

**ਸੈਕਸ਼ਨ-ਸੀ**

(ੳ) ਪੈਰਾ ਰਚਨਾ  
(ਅ) ਪੈਰਾ ਪੜ੍ਹ ਕੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ।

**ਸੈਕਸ਼ਨ-ਡੀ**

(ੳ) ਪੰਜਾਬੀ ਧੁਨੀ ਵਿਉਂਤ : ਉਚਾਰਨ ਅੰਗ, ਉਚਾਰਨ ਸਥਾਨ ਤੇ ਵਿਧੀਆਂ, ਸਵਰ, ਵਿਅੰਜਨ,  
ਸੁਰ-ਪ੍ਰਥਮ।  
(ਅ) ਭਾਸ਼ਾ ਵੰਨਗੀਆਂ : ਭਾਸ਼ਾ ਦਾ ਟਕਸਾਲੀ ਰੂਪ, ਭਾਸ਼ਾ ਅਤੇ ਉਪ-ਭਾਸ਼ਾ ਦਾ ਅੰਤਰ, ਪੰਜਾਬੀ  
ਉਪਭਾਸ਼ਾਵਾਂ ਦੇ ਪਛਾਣ-ਚਿੰਨ੍ਹ।

**ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ**

1. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਭਾਗ ਹੋਣਗੇ। ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
2. ਵਿਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹੈ।  
ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
3. ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ ਅੰਕ ਹਨ।
4. ਪੇਪਰ ਸੈੱਟ ਕਰਨ ਵਾਲਾ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰ  
ਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿੱਚ ਕਰ ਸਕਦਾ ਹੈ।

**PAPER-VII: ਮੁੱਢਲੀ ਪੰਜਾਬੀ**  
(In lieu of Compulsory Punjabi)

ਸਮਾਂ : 3 ਘੰਟੇ

ਕੁਲ ਅੰਕ: 50

**ਪਾਠ-ਕ੍ਰਮ**

**ਸੈਕਸ਼ਨ-ਏ**

ਪੈਂਤੀ ਅੱਖਰੀ, ਅੱਖਰ ਕ੍ਰਮ, ਪੈਰ ਬਿੰਦੀ ਵਾਲੇ ਵਰਣ ਅਤੇ ਪੈਰ ਵਿਚ ਪੈਣ ਵਾਲੇ ਵਰਣ ਅਤੇ ਮਾਤ੍ਰਵਾਂ (ਮੁੱਢਲੀ ਜਾਣ-ਪਛਾਣ)  
ਲਗਾਖਰ (ਬਿੰਦੀ, ਟਿੱਪੀ, ਅੱਧਕ) : ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ

**ਸੈਕਸ਼ਨ-ਬੀ**

ਪੰਜਾਬੀ ਸ਼ਬਦ-ਬਣਤਰ : ਮੁੱਢਲੀ ਜਾਣ-ਪਛਾਣ  
(ਸਾਧਾਰਨ ਸ਼ਬਦ, ਸੰਯੁਕਤ ਸ਼ਬਦ, ਮਿਸ਼ਰਤ ਸ਼ਬਦ, ਮੂਲ ਸ਼ਬਦ, ਅਗੇਤਰ ਅਤੇ ਪਿਛੇਤਰ)

**ਸੈਕਸ਼ਨ-ਸੀ**

ਨਿੱਤ ਵਰਤੋਂ ਦੀ ਪੰਜਾਬੀ ਸ਼ਬਦਾਵਲੀ : ਬਾਜ਼ਾਰ, ਵਪਾਰ, ਰਿਸ਼ਤੇ-ਨਾਤੇ, ਖੇਤੀ ਅਤੇ ਹੋਰ ਧੰਦਿਆਂ ਆਦਿ ਨਾਲ ਸੰਬੰਧਤ।

**ਸੈਕਸ਼ਨ-ਡੀ**

ਹਫ਼ਤੇ ਦੇ ਸੱਤ ਦਿਨਾਂ ਦੇ ਨਾਂ, ਬਾਰਾਂ ਮਹੀਨਿਆਂ ਦੇ ਨਾਂ, ਰੁੱਤਾਂ ਦੇ ਨਾਂ, ਇਕ ਤੋਂ ਸੌ ਤਕ ਗਿਣਤੀ ਸ਼ਬਦਾਂ ਵਿਚ

**ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ**

1. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਭਾਗ ਹੋਣਗੇ। ਹਰ ਭਾਗ ਵਿਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
2. ਵਿਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਭਾਗ ਵਿਚੋਂ ਇਕ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹੈ।  
ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
3. ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ ਅੰਕ ਹਨ।
4. ਪੇਪਰ ਸੈੱਟ ਕਰਨ ਵਾਲਾ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰ ਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿਚ ਕਰ ਸਕਦਾ ਹੈ।

**PAPER–VII: Punjab History & Culture (From Earliest Times to C 320)**

**(Special Paper in lieu of Punjabi Compulsory)**  
**(For those students who are not domicile of Punjab)**

**Time: 3 Hours**

**Max. Marks: 50**

**Instructions for the Paper Setters:-**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**Section–A**

1. Physical features of the Punjab and its impact on history.
2. Sources of the ancient history of Punjab

**Section–B**

3. Harappan Civilization: Town planning; social, economic and religious life of the Indus Valley People.
4. The Indo-Aryans: Original home and settlements in Punjab.

**Section–C**

5. Social, Religious and Economic life during *Rig Vedic Age*.
6. Social, Religious and Economic life during *Later Vedic Age*.

**Section–D**

7. Teachings and impact of Buddhism
8. Jainism in the Punjab

**Suggested Readings:**

1. L. M Joshi (Ed.), *History and Culture of the Punjab*, Art-I, Patiala, 1989 (3<sup>rd</sup> Edition)
2. L.M. Joshi and Fauja Singh (Ed.), *History of Punjab*, Vol.I, Patiala 1977.
3. Budha Parkash, *Glimpses of Ancient Punjab*, Patiala, 1983.
4. B.N. Sharma, *Life in Northern India*, Delhi. 1966.
5. Chopra, P.N., Puri, B.N., & Das, M.N. (1974). *A Social, Cultural & Economic History of India*, Vol. I, New Delhi: Macmillan India.

PAPER – VIII: DRUG ABUSE: PROBLEM, MANAGEMENT AND PREVENTION  
(COMPULSORY PAPER)

PROBLEM OF DRUG ABUSE

Time: 3 Hours

Max. Marks: 50

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section – A

Meaning of Drug Abuse:

Meaning, Nature and Extent of Drug Abuse in India and Punjab.

Section – B

Consequences of Drug Abuse for:

Individual	:	Education, Employment, Income.
Family	:	Violence.
Society	:	Crime.
Nation	:	Law and Order problem.

Section – C

Management of Drug Abuse:

Medical Management: Medication for treatment and to reduce withdrawal effects.

Section – D

Psychiatric Management: Counselling, Behavioural and Cognitive therapy.

Social Management: Family, Group therapy and Environmental Intervention.

## References:

1. Ahuja, Ram (2003), *Social Problems in India*, Rawat Publication, Jaipur.
2. Extent, Pattern and Trend of Drug Use in India, Ministry of Social Justice and Empowerment, Government of India, 2004.
3. Inciardi, J.A. 1981. *The Drug Crime Connection*. Beverly Hills: Sage Publications.
4. Kapoor. T. (1985) *Drug epidemic among Indian Youth*, New Delhi: Mittal Pub.
5. Kessel, Neil and Henry Walton. 1982, *Alcoholism*. Harmond Worth: Penguin Books.
6. Modi, Ishwar and Modi, Shalini (1997) *Drugs: Addiction and Prevention*, Jaipur: Rawat Publication.
7. National Household Survey of Alcohol and Drug abuse. (2003) New Delhi, Clinical Epidemiological Unit, All India Institute of Medical Sciences, 2004.
8. Ross Coomber and Others. 2013, *Key Concept in Drugs and Society*. New Delhi: Sage Publications.
9. Sain, Bhim 1991, *Drug Addiction Alcoholism, Smoking obscenity* New Delhi: Mittal Publications.
10. Sandhu, Ranvinder Singh, 2009, *Drug Addiction in Punjab: A Sociological Study*. Amritsar: Guru Nanak Dev University.
11. Singh, Chandra Paul 2000. *Alcohol and Dependence among Industrial Workers*: Delhi: Shipra.
12. Sussman, S and Ames, S.L. (2008). *Drug Abuse: Concepts, Prevention and Cessation*, Cambridge University Press.
13. Verma, P.S. 2017, “*Punjab’s Drug Problem: Contours and Characteristics*”, Economic and Political Weekly, Vol. LII, No. 3, P.P. 40-43.
14. World Drug Report 2016, United Nations office of Drug and Crime.
15. World Drug Report 2017, United Nations office of Drug and Crime.

**Paper I: Multimedia & Its Applications**

**Time: 3 Hrs.**

**Max. Marks: 50**

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**The student can use only Non-programmable & Non-storage type calculator.**

Section A

**Multimedia:** Introduction, Data and File Formats standards, Conversion of different media types, criteria for designing multimedia presentation.

12 hrs

Section B

**Multi-Media Building Blocks:** – Text, Graphics, Video capturing, sound capturing, editing. Basic Design Principle: proximity, visual hierarchy, symmetry/asymmetry, repetition, unity, contrast, dynamics, emphasis.

16 hrs

Section C

**Advertisement and Computers:** Definition, Concepts, Types, Principles, Objectives, Concepts, Role of computers in advertisement, animation, applications of software's like Photoshop, CorelDraw, quark-express etc.

18 hrs

Section D

**Tools of Public Relations:** Definition, concept and role of public relations in public and corporate sector. Tools of public relations including internet. Image building and public relation campaigns.

14 hrs

**References:**

1. Fundamentals of Multimedia by Ze-Nian Li, and Mark S. Drew, Pearson Prentice Hall
2. Multimedia Magic by Gokul, BPB Publication.
3. Multimedia Systems by Bufford, Addison Wesley.
4. Multimedia in Practice by Jeffcoate, Prectice-Hall.



**Paper II: Printing Process and Techniques**

**Time: 3 Hrs.**

**Max. Marks: 50**

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**The student can use only Non-programmable & Non-storage type calculator.**

Section A

**Printing Processes:** Types of printing processes and their principles, suitability and limitations, Comparative study of all printing processes, Methods of surface preparation, layout, suitability and limitations. 10 hrs

Section B

**Printing Materials and its Handling:** *Metals* –Physical and chemical properties of aluminum, zinc, copper, nickel, chromium, magnesium in relation to printing applications. *Photographic Materials*–Main kinds of films and photographic papers. *Light Sensitive Materials* – used and relationship with processes Silver halide emulsions–classification according to speed, contrast and spectral sensitivity. 14 hrs

Handling and storage of paper, printing surfaces, films, chemicals and other printing materials Systems and methods of storage. Precautions in handling, storage, use and care of various printing substrates, materials. 12 hrs

Section C

**Pre-Press Techniques:** Preparation of artwork and reproduction techniques such as continuous tone to halftone, dot, screen angle and ruling, color theories, measurement of color, Image setter technology– types, working, principles, advantages, limitations and applications, Proofing techniques and devices. 14 hrs

Section D

**Print Finishing:** Materials and Tools used in binding and their appropriate choice, Types of Bindings. Various Finishing processes– UV coating, laminations, Varnishing, embossing etc. Covering styles. 10 hrs

**References:**

1. Operator's Manual – GATF
2. Printing Materials Science & Technology – Bob Thompson–PIRA
3. Maintenance Engineering Handbook– Lindley Higging, Mc Graw Hill.3
4. FlexoPrimer– D. C. Mulvihill, GATF

**Paper III: Lab–I: Corel Draw**

**M.Marks: 50**

- Customizing Desktop
- Drawing Rectangles, squares, ellipses, circles, curves
- Manipulating objects, arranging objects
- Draw & edit free hand curves
- Using Text, Bezier Curves, bitmap images
- Creating special objects
- Managing Layers & pages
- Importing & exporting objects
- Using Drawing & Painting tools, eyedropper & clone tools, Retouching tools
- Setting Print options & printing files
- Creating– business cards, pamphlets, banners, news papers, books. Shortcut keys in Corel draw.

**Paper IV: – Lab–II: Adobe PageMaker**

**M.Marks: 75**

- Introduction to Page Maker Advantages, Using the Mouse, Components of the Page Maker Window
- Creating a new Document
- Introduction to Creating Frames, Threading and Unthreading Text. Threading additional Text, Threading Text to Different Page, Unthreading Text Blocks, Rethreading Text Blocks
- Introduction to Auto Flow, page maker Plug–Ins, Drop Cap, Change Case, Bullets and Numbering.
- Adding Design Elements– Introduction, Shapes, changing Shape specifications, Changing Line and fill, Specifications together (Fill and Stroke), Changing Round Corners, Creating Drop–Shadow, Boxes, Text wrap, Changing page maker Options: Adjusting Margins, Setting and Adjusting Columns, Setting Unequal Width Columns, Creating headers and Footers, Creating Graphics in page maker, Rotating Text, Skewing and Mirroring objects with Control Palette. Importing Graphics into page maker: Placing, Sizing, aligning Graphics, Cropping Graphics. Introduction to Using layers
- Developing Long Documents
- Spellings: Correcting Misspelled Words, Correcting Duplicate Words, Adding Words to the different Dictionaries, Correcting Duplicate Words, using find Feature, Using the change Feature, using page Maker Help.

**Paper V: – Lab–III: Printing Process**

**M. Marks: 75**

Identification of different tools & equipments used in letterpress.

Schematic diagram of different printing processer

Printing of line & half tone block in single & multi color

Schematic diagram of different letter process Printing machines

Study of Running & Printing faults on press machine

Multi color printing of Visiting cards

Multi color print of greeting cards

Multi color print of letter heads

Multi color print of certificates

Multi color print of invitations

Multi color print of Folders

Multi color print of Cover Pages

Multi color print of Photographs.

Different types of industrial standard Size.

**PAPER–VI: COMMUNICATION SKILLS IN ENGLISH – II**

**Time: 3 Hours**

**Max. Marks: 50  
Theory Marks: 35  
Practical Marks: 15**

**Instructions for the Paper Setters:-**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**Course Contents:**

**SECTION–A**

**Listening Skills:** Barriers to listening; effective listening skills; feedback skills.

**Activities:** Listening exercises – Listening to conversation, News and TV reports

**SECTION–B**

Attending telephone calls; note taking and note making.

**Activities:** Taking notes on a speech/lecture

**SECTION–C**

**Speaking and Conversational Skills:** Components of a meaningful and easy conversation; understanding the cue and making appropriate responses; forms of polite speech; asking and providing information on general topics.

**Activities:** 1) Making conversation and taking turns

2) Oral description or explanation of a common object, situation or concept

**SECTION–D**

The study of sounds of English,  
Stress and Intonation,  
Situation based Conversation in English,  
Essentials of Spoken English.

**Activities:** Giving Interviews

**PRACTICAL / ORAL TESTING**

**Marks: 15**

**Course Contents:-**

1. Oral Presentation with/without audio visual aids.
2. Group Discussion.
3. Listening to any recorded or live material and asking oral questions for listening comprehension.

**Questions:-**

1. Oral Presentation will be of 5 to 10 minutes duration (Topic can be given in advance or it can be student's own choice). Use of audio visual aids is desirable.
2. Group discussion comprising 8 to 10 students on a familiar topic. Time for each group will be 15 to 20 minutes.

**Note:** Oral test will be conducted by external examiner with the help of internal examiner.

PAPER-VII: ਪੰਜਾਬੀ (ਲਾਜ਼ਮੀ)

ਸਮਾਂ : 3 ਘੰਟੇ

ਕੁਲ ਅੰਕ : 50

ਪਾਠ-ਕ੍ਰਮ ਅਤੇ ਪਾਠ-ਪੁਸਤਕਾਂ

**ਸੈਕਸ਼ਨ-ਏ**

ਆਤਮ ਅਨਾਤਮ (ਕਹਾਣੀ ਭਾਗ),  
(ਸੰਪ. ਸੁਹਿੰਦਰ ਬੀਰ ਅਤੇ ਵਰਿਆਮ ਸਿੰਘ ਸੰਧੂ)  
ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ।  
(ਵਿਸ਼ਾ-ਵਸਤੂ, ਪਾਤਰ ਚਿਤਰਨ)

**ਸੈਕਸ਼ਨ-ਬੀ**

ਇਤਿਹਾਸਕ ਯਾਦਾਂ (ਇਤਿਹਾਸਕ ਲੇਖ-ਸੰਗ੍ਰਹਿ)  
ਸੰਪਾ. ਸ.ਸ.ਅਮੋਲ,  
ਪੰਜਾਬੀ ਸਾਹਿਤ ਪ੍ਰਕਾਸ਼ਨ, ਲੁਧਿਆਣਾ। (ਲੇਖ 7 ਤੋਂ 12)  
(ਸਾਰ, ਲਿਖਣ ਸ਼ੈਲੀ)

**ਸੈਕਸ਼ਨ-ਸੀ**

(ੳ) ਸ਼ਬਦ-ਬਣਤਰ ਅਤੇ ਸ਼ਬਦ ਰਚਨਾ : ਪਰਿਭਾਸ਼ਾ, ਮੁੱਢਲੇ ਸੰਕਲਪ  
(ਅ) ਸ਼ਬਦ ਸੂਚੀ

**ਸੈਕਸ਼ਨ-ਡੀ**

(ੳ) ਸੰਖੇਪ ਰਚਨਾ  
(ਅ) ਮੁਹਾਵਰੇ ਅਤੇ ਅਖਾਣ

**ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ**

1. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਭਾਗ ਹੋਣਗੇ। ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
2. ਵਿਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
3. ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ ਅੰਕ ਹਨ।
4. ਪੇਪਰ ਸੈੱਟ ਕਰਨ ਵਾਲਾ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰ ਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿੱਚ ਕਰ ਸਕਦਾ ਹੈ।

PAPER-VII: ਮੁੱਢਲੀ ਪੰਜਾਬੀ  
(In lieu of Compulsory Punjabi)

ਸਮਾਂ: 3 ਘੰਟੇ

ਕੁਲ ਅੰਕ: 50

ਪਾਠ-ਕ੍ਰਮ

ਸੈਕਸ਼ਨ-ਏ

ਸ਼ਬਦ ਸ਼੍ਰੇਣੀਆਂ : ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ  
(ਨਾਂਵ, ਪੜਨਾਂਵ, ਕਿਰਿਆ, ਵਿਸ਼ੇਸ਼ਣ, ਕਿਰਿਆ ਵਿਸ਼ੇਸ਼ਣ, ਸਬੰਧਕ, ਯੋਜਕ ਅਤੇ ਵਿਸਮਿਕ)

ਸੈਕਸ਼ਨ-ਬੀ

ਪੰਜਾਬੀ ਵਾਕ ਬਣਤਰ : ਮੁੱਢਲੀ ਜਾਣ-ਪਛਾਣ  
(ੳ) ਸਾਧਾਰਨ ਵਾਕ, ਸੰਯੁਕਤ ਵਾਕ ਅਤੇ ਮਿਸ਼ਰਤ ਵਾਕ (ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ)  
(ਅ) ਬਿਆਨੀਆ ਵਾਕ, ਪ੍ਰਸ਼ਨਵਾਚਕ ਵਾਕ ਅਤੇ ਹੁਕਮੀ ਵਾਕ (ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ)

ਸੈਕਸ਼ਨ-ਸੀ

ਪੈਰਾ ਰਚਨਾ  
ਸੰਖੇਪ ਰਚਨਾ

ਸੈਕਸ਼ਨ-ਡੀ

ਚਿੱਠੀ ਪੱਤਰ (ਘਰੇਲੂ ਅਤੇ ਦਫ਼ਤਰੀ)  
ਅਖਾਣ ਅਤੇ ਮੁਹਾਵਰੇ

ਅੰਕ-ਵੰਡ ਅਤੇ ਪਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

1. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਭਾਗ ਹੋਣਗੇ। ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
2. ਵਿਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਇਕ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ।
3. ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ ਅੰਕ ਹਨ।
4. ਪੇਪਰ ਸੈੱਟ ਕਰਨ ਵਾਲਾ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰ ਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿਚ ਕਰ ਸਕਦਾ ਹੈ।

**PAPER–VII: Punjab History & Culture (C 320 to 1000 B.C.)  
(Special Paper in lieu of Punjabi compulsory)  
(For those students who are not domicile of Punjab)**

**Time: 3 Hours**

**Max. Marks: 50**

**Instructions for the Paper Setters:-**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**Section–A**

1. Alexander's Invasion and its Impact
2. Punjab under Chandragupta Maurya and Ashoka.

**Section–B**

3. The Kushans and their Contribution to the Punjab.
4. The Panjab under the Gupta Empire.

**Section–C**

5. The Punjab under the Vardhana Emperors
6. Socio-cultural History of Punjab from 7<sup>th</sup> to 1000 A.D.

**Section–D**

7. Development of languages and Education with Special reference to Taxila
8. Development of Art & Architecture

**Suggested Readings:**

1. L. M Joshi (Ed), *History and Culture of the Punjab*, Art-I, Punjabi University, Patiala, 1989 (3<sup>rd</sup> Edition)
2. L.M. Joshi and Fauja Singh (Ed.), *History of Punjab*, Vol. I, Punjabi University, Patiala, 1977.
3. Budha Parkash, *Glimpses of Ancient Punjab*, Patiala, 1983.
4. B.N. Sharma: *Life in Northern India*, Delhi. 1966.



PAPER – VIII: DRUG ABUSE: PROBLEM, MANAGEMENT AND PREVENTION  
(COMPULSORY PAPER)

DRUG ABUSE: MANAGEMENT AND PREVENTION

Time: 3 Hours

Max. Marks: 50

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Section – A

Prevention of Drug abuse:

Role of family: Parent child relationship, Family support, Supervision, Shaping values, Active Scrutiny.

Section – B

School: Counselling, Teacher as role-model. Parent-teacher-Health Professional Coordination, Random testing on students.

Section – C

Controlling Drug Abuse:

Media: Restraint on advertisements of drugs, advertisements on bad effects of drugs, Publicity and media, Campaigns against drug abuse, Educational and awareness program

Section – D

Legislation: NDPs act, Statutory warnings, Policing of Borders, Checking Supply/Smuggling of Drugs, Strict enforcement of laws, Time bound trials.

## References:

1. Ahuja, Ram (2003), *Social Problems in India*, Rawat Publication, Jaipur.
2. Extent, Pattern and Trend of Drug Use in India, Ministry of Social Justice and Empowerment, Government of India, 2004.
3. Inciardi, J.A. 1981. *The Drug Crime Connection*. Beverly Hills: Sage Publications.
4. Kapoor. T. (1985) *Drug Epidemic Among Indian Youth*, New Delhi: Mittal Pub.
5. Kessel, Neil and Henry Walton. 1982, *Alcoholism*. Harmond Worth: Penguin Books.
6. Modi, Ishwar and Modi, Shalini (1997) *Drugs: Addiction and Prevention*, Jaipur: Rawat Publication.
7. National Household Survey of Alcohol and Drug Abuse. (2003) New Delhi, Clinical Epidemiological Unit, All India Institute of Medical Sciences, 2004.
8. Ross Coomber and Others. 2013, *Key Concept in Drugs and Society*. New Delhi: Sage Publications.
9. Sain, Bhim 1991, *Drug Addiction Alcoholism, Smoking Obscenity*, New Delhi: Mittal Publications.
10. Sandhu, Ranvinder Singh, 2009, *Drug Addiction in Punjab: A Sociological Study*. Amritsar: Guru Nanak Dev University.
11. Singh, Chandra Paul 2000. *Alcohol and Dependence among Industrial Workers*: Delhi: Shipra.
12. Sussman, S and Ames, S.L. (2008). *Drug Abuse: Concepts, Prevention and Cessation*, Cambridge University Press.
13. Verma, P.S. 2017, “*Punjab’s Drug Problem: Contours and Characteristics*”, Economic and Political Weekly, Vol. LII, No. 3, P.P. 40-43.
14. World Drug Report 2016, United Nations office of Drug and Crime.
15. World Drug Report 2017, United Nations office of Drug and Crime.

**Paper I: Modern Trends in Printing**

**Time: 3 Hrs.**

**M. Marks: 50**

**Instructions for the Paper Setters:-**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**The student can use only Non-Programmable & Non- storage type calculator.**

**Part A**

**Offset:** Substrate selection for web offset printing, offset printability, and printing defects. Offset press components, printing units, principles of drying, impression rollers and blankets, automatic plate mounting systems for offset process.

**Flexography:** Configurations of a Flexo press, 12 hrs

**Part B**

**Application of Flexo:** Packaging & Label printing, Conventional & Digital Flexo plate- making, Distortion factors, Flexo printability, closed and open inking systems, functions and Benefits of closed inking systems. 12hrs

**Part C**

**Impression Roller:** Function, Elastomers, Properties of covering Materials, Nip width, Electrostatic Assist, Rubber Hardness & its Effects on print quality. 12hrs

**Latest Trends:** Facsimile Technology, Laser used in pre- press,

**Part D**

**Contemporary Printing:** UV printing, Engraving Technologies, Pneumatics & Hydraulics used in different printing processes

**Press Environment Logistics:** Handling Systems, waste Disposal, Exhaust air purification, cleaning systems pressure, climate requirements, machine maintenance and care. 12 hrs

**References:**

1. Haward M. Fenton, Frank J. Romano, On Demand Printing, GATF, 1998.
2. Bob Durrant, Development in Web Offset, Pira International, 1993.
3. Tony White, High Quality Flexography, Pira International, 1998.
4. Flexography-Principles and Practices, Volume1-6, FFTA, 5<sup>th</sup> Edition. 1999.

**Paper–II: Planning and Design for Printing**

**Time: 3 Hrs.**

**M. Marks: 50**

**Instructions for the Paper Setters:-**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**The student can use only Non–Programmable & Non– storage type calculator.**

**Part A**

**Introduction:** Importance of a good design, Impact of a design on various target audience. Relationship between design and sale of a product, Graphic designer and his role, Elements and principles of design

**Basic Design and letter Forms:** Visual ingredients of graphic design, point, line, graphic space, shape, texture, color, scale, balance and contrast. 12 hrs

**Part B**

**Use of Computers in Designing:** Introduction to some designing software, Suitability of a design for printing technique and paper surface. Legibility and readability, Monograms and trademarks, Factors to be considered for preparation of a Design 12 hrs

**Part C**

**Design Process:** Methods of preparing a design in various stages. Design for books, Magazines, Newspapers, Catalogues, cartoons and commercial stationary. Materials and tools used in preparing layouts and artwork, Copy preparation. Casting– off and Marking up 12hrs

**Part D**

**Choosing a Suitable Paper:** Characteristics of paper, Printing process requirement, Paper varieties for printing. Printing defects associated with paper. Reel defects. Testing methods Measurement and calculations: Paper sizes. Influence of moisture and RH on paper and boards, Print quality achievable on different types of paper. Surface strength and internal bond strength – picking, fluffing, splitting, Strength properties – stiffness, folding endurance, bursting strength, tear resistance. Optical properties – gloss, brightness, whiteness, yellowness and tint indices, florescence 12hrs

**References:**

1. Production Management by Martand T. Telsang, S. Chand Publication
2. Operator’s Manual – GATF
3. Advances in Printing Science and Technology Vol. 24 –J. Anthony Bristow

**Paper–III: Tone and Color Analysis**

**Time: 3 Hrs.**

**M. Marks: 50**

**Instructions for the Paper Setters:-**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**The student can use only Non–Programmable & Non– storage type calculator.**

**Part A**

**CIE:** Spectral reflectance – CIE color standard, standard observer, tristimulus values Munsell– Munsell Hue circle, CIELAB, CIELUV.

**Memory Color:** color management, Introduction, WYSWYG

14 hrs

**Part B**

**Functions of color managements:** color management module, color engine, functions of CMM, principle of color calibration.

**Scanning:** Introduction, basic elements of scanners, principles of electronic scanning, Basic of electronic scanning, pixels, binary resolution, AM, FM screening, digital halftones

14 hrs

**Part C**

**Basic scanner types,** pantone, focal tone, trumatch, special/spot color, application of special color, digital images, sampled images, bitmap, raster, vector graphics.

**Types of Originals:** The ideal transparencies, principles of separation, screen angles and juxtaposition of Dots, Direct, indirect methods

16 hrs

**Part D**

**Color Manipulation:** color separation, color correction, need for color correction, masking, integral color masking.

**Color Printing:** using standard inks, digital color separation, ink color sequence, brief intro to manual retouching, masking for color correction, types of masking, positive masking, negative masking, double overlay masking, integralcolor masking.

16hrs

**References:**

1. Principles of Color Reproduction– J.A.C yale
2. Color– Robin B. McAllister.

*Bachelor of Vocation (B.Voc.)*  
*(Printing Technology) Semester – III*

**Paper–IV: Copyright and Publishing Ethics**

**Time: 3 Hrs.**

**M. Marks: 50**

**Instructions for the Paper Setters:-**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**The student can use only Non–Programmable & Non– storage type calculator.**

**Part A**

**Copyright Basics:** Copyright introduction, Copyright and National Origin of the Work, What Works Are Protected and What Is Not Protected by Copyright, How to Secure a Copyright, Publication, Notice of Copyright, Transfer of Copyright, International Copyright Protection, Copyright Registration procedures.

14hrs

**Part B**

**The Publishing Value Chain:** Publishing Across the Digital Landscape. Publishers' Responsibilities in Negotiating Agreements , Managing Primary Rights, Grant of rights and specification , Commissioned works, Delivery and publication dates ,Acceptability, Warranties and indemnities, Payments to authors and other creators ,Other publisher issues, , Concluding an agreement Managing Intellectual Property in the Book Publishing Industry.

14hrs

**Part C**

**Managing Secondary and Third–Party Rights:** Operating a secure permissions system, Text excerpts, Illustrations and web content, drawn artwork, Photographs, Fine art, Picture acknowledgements, Web content.

14 hrs

**Part D**

**Business Models:** Payment to Authors, Permissions and Subsidiary Rights i.e: Payment to Authors, Fee–based payment, Royalty payment, Permissions, Text material, Subsidiary Rights, Text extracts, Illustrations, Adaptations and exploitations.

14hrs

**Reference:**

Copyright Basics by Copyright United States Copyright office

**Paper–V: – Lab–I: Microsoft Publisher**

**M.Marks: 100**

- New Features for Microsoft Publisher
- Creating Your Own Publisher Projects
- Adding Borders to Publisher Projects
- Inserting Pictures into Publisher Projects
- Inserting Textboxes into Publisher Projects
- Inserting Tables into Publisher Projects
- Publishing Your Own Website
- Printing and Saving Your Microsoft Publisher
- Page Layout Tips
- Manipulating Graphics and Other Objects
- Sending E–Mail Publications
- Useful Keyboard Shortcuts for Microsoft Publisher

**Paper–VI: Lab–II: Adobe Photoshop and Illustrator**

**M.Marks: 100**

Introduction to Photoshop; Tools, Navigation, drawing tools, Layers, Selections Tools, Selection Manipulation, Basic Image Editing, Layer Blending Modes, Bringing Color into B&W images, Color to B&W, Quick Mask Mode, Intro to Masks, Type Tool, Auto Align tool, Filters, Smart Filters, Prepare Images for Web

Introduction to Adobe Illustrator, Basic shapes, manipulate shapes, export and illustration, Applying Basic color, stroke Options, Eyedropper tool, Working with drawing paths, working with Text, Layers, Fills and colors, Adjusting Typography, Animation tools, converting Raster images to Vector art, Print and Color specification



**Paper–I: Screen Printing and Gravure**

**Time: 3 Hrs.**

**M. Marks: 50**

**Instructions for the Paper Setters:-**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**The student can use only Non–Programmable & Non– storage type calculator.**

**Part A**

**Screen Printing:** Introduction, screen printing on papers, Textiles & other printing substrates. Principles of screen process printing, Colour of stock Textiles & Types of Fabrics, stretching screen fabrics, Common types of Fabrics– printing on T– shirts, Plastics, types of Plastics.

14hrs

**Part B**

**Screen Printing Press:** Screen Printing Automatic press. Choosing a printing process; Letter Press Lithography, photogravure; Screen printing collo type, How to build a screen process press drying equipment, constructing specialty equipment 14hrs

**Part C**

**Screen Printing Method:** Method of Halftone preparation for screen printing. Drying Equipment– drying Racks, wicket dryers, Infrared dryers, ultraviolet dryers, Flocking process

14hrs

**Packaging Gravure Presses:** Folding carton presses.

**Part D**

Flexible packaging presses, Label presses, product Gravure.

**Stencil Gravure Presses:** Process in stencil printing, Types of stencil Printing and Modern Types of Stencil Printing

14 hrs

**References:**

1. Printing Technology by Adams, Faux, Rieber
2. Screen Printing Preview by Babette Magee
3. Screen Printing by John Stephens

**Paper–II: Newspaper and Periodical Publishing**

**Time: 3 Hrs.**

**M. Marks: 50**

**Instructions for the Paper Setters:-**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**The student can use only Non–Programmable & Non– storage type calculator.**

**Part A**

**Introduction:** Newspaper organization, Newspaper hierarchy–editorial organization, sources of news; mechanical aspects of newspaper organization– composition, printing the newspaper organization, functions of headlines, Kickers, Blurbs. Treating photographs; cropping. Captions of photographs

14 hrs

**Part B**

**Basic Design:** Achieving symmetry/ asymmetry, balance/off– balance, use of colour, placement of various elements in design. Attracting attention

**Newspaper Layout & Designing:**–Difference between design and layout, The various Kinds of layout Flow of stories into a newspaper office

16hrs

**Part C**

**Basic determinants of News:** impact, unusual and prominent: Additional determinants of news; conflict, proximity, timeliness, currency, The various sources and copy for each page, Reporters, correspondents, agencies, syndicates, columnists, readers. Facsimile copy & photographs

14 hrs

**Part D**

**Editorial Organization and Newspaper Publishing:** Editorial content and news. The OP–ED Page, The Gatekeeping Function, Editorial and opinion columns, sports and photo production; editing Manuscript editing, creative and substantive editing, technical editing, editing conference proceeding, editing a successful journal

14hrs

**References:**

1. News Reporting and Writing – Melvin Mecher
2. The Journalist; Handbook – M. V. Kamath
3. Editing; A Handbook for Journalists – TJS George

*Bachelor of Vocation (B.Voc.)*  
*(Printing Technology) Semester – IV*

**Paper–III: Digital Pre–Press**

**Time: 3 Hrs.**

**M. Marks: 50**

**Instructions for the Paper Setters:-**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**The student can use only Non–Programmable & Non– storage type calculator.**

**Part A**

**Structure of Digital Printed Product:** Technological capabilities and work flows – Digital description of the Printed Page – Text – Images – Graphics – Layout – The digital page used as a basis from the digital description of the page to its printing.

**Digital Screening Process:** RT Screening, Super cells, irrational screening, output options

15 Hrs

**Part B**

Quality requirement – Input and Out put resolution Transferable tonal range – Dot shape tonal value influence in printing dot gain print characteristics curve.

**Digital Photography:** Origin, Image scanning with digital camera, Demands on the resolution special features – tone value quantization, focal length of lenses, aspect ratio, link up to a computer. Digital photography and color management.

15 hours

**Part C**

**Digitalizing Originals:** scanner design & models– scanner technology – Digitalizing & re-Digitalizing scanner operation and image processing sheet assembly and imposition – page make up & sheet assembly, full sheet output, full sheet production in the work flow, imposition through sheet work, imposition sheet & imposition layout

16 hours

**Part D**

**Color Management:** definition, image reproduction process – production of color profiles, colour management and standardization colour management concepts .Digital proof – proofing process Quality Control Press and pre press proofing –digital colour proofing and its limitations

14 hours

**References:**

1. Digital Prepress Technologies, by Smyth, S., Leatherhead: Pira International, 2001.
2. Hand Book of Print Media by H. Kippan, Heidelberg.
3. Digital Commercial Printing, by Smyth, S., Leatherhead: Pira International, 2001.
4. The Manual of Photography, Photography and Digital Imaging.

*Bachelor of Vocation (B.Voc.)*  
*(Printing Technology) Semester – IV*

**Paper–IV: – Data Communication and Networks**

**Time: 3 Hrs.**

**M. Marks: 50**

**Instructions for the Paper Setters:-**

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**The student can use only Non–Programmable & Non– storage type calculator.**

**Part A**

**Introduction:** Data Communication, Networks, Internet & WWW, Intranet and Extranet, Basic Components of a Network, Network types and topologies, Uses of Computer Networks.

**Transmission Media:** Coaxial cable, twisted pair cable, fiber optics & satellites. 14 Hrs

**Part B**

**Reference Model:** Protocols, OSI reference model, TCP/IP reference model, comparison of OSI and TCP/IP reference model

**Introduction to Analog and Digital Transmission:** Telephone system, Modems, Types of modems, pulse code modulation. 14 Hrs

**Part C**

**Multiplexing and Switching Elements:** Multiplexing, FDM; STDM; i.e. Synchronous and Statistical Time Division Multiplexing, Switching and its various elements.

**Network Security and Privacy:** Brief Introduction to Cryptography, Firewalls 14 Hrs

**Part D**

**Network Services:** File transfer, Access & Management, Electronic Mail, Remote login

**Malicious software and Internet Security:** Viruses and related threats, virus Countermeasures, denial of service attacks, Introduction to Hacking, Security policies and plan, Strategies for a secure network 14 Hrs

**References:**

1. Tanenbaum, A.S.: Computer Networks, Prentice Hal, 192, 3rd Edition.
2. Behrouz A. Forouzan: Data Communication & Network II nd Edition Update, TATA McGraw–Hill
3. Stalings, Wiliam: Data Computer Communication, Macmilan Publishing Co.
4. Cryptography & Network Security”, Behrouz A. Forouzan, IV Edition, Tata McGraw–Hill.

**Paper V: – Lab-I: Screen Printing and Offset Platemaking**

**M. Marks: 100**

Study of various types of screen materials

Screen stretching techniques.

Operating of automatic machine

Study of various types of Screen Materials

Make ready for Screen Printing – Printing of Letterheads and Visiting Card.

Printing on various substrates – wood, leather, textile, acrylic, metal, paper & paper products, plastic

Screen printing on Irregular Surfaces – Bottles, Ceramics, Glass

Screen printing on printed circuit boards (PCB)

Screen Reclamation

Types of planning and layout preparation

Sheet work film assembly

Half sheet work film assembly

Planning for irregular images

Film assembly for color work

Study of exposing processing and punching systems

Exposure optimization and standardization

Repeatability tests on Printing down frame

Wipe-on plate processing and standardization

**Paper VI: Lab–II: Adobe Indesign**

**M.Marks: 100**

Introduction to Adobe Indesign; Tools, Navigator Panel, multimedia tools, Layers, Selections Tools, Different types of Selection Manipulation tools, Curves, Create a basic shapes, Blending Model and Auto contrast, using different types of plug-in/brushes, Mask Mode, Formatting, using manipulate shapes, import and export, making a different types of formats, Working with drawing path tool, Typography, Layers, using for different types of color pallets, RGB Mode, CMYK mode, using for raster/vector, manipulate the different types of layout and standards.

## PAPER–VII (ESL-221): ENVIRONMENTAL STUDIES

**Time: 3 Hrs.**

**Max. Marks: 100**

### Teaching Methodologies

The Core Module Syllabus for Environmental Studies includes class room teaching and field work. The syllabus is divided into 8 Units [Unit-1 to Unit-VII] covering 45 lectures + 5 hours for field work [Unit-VIII]. The first 7 Units will cover 45 lectures which are class room based to enhance knowledge skills and attitude to environment. Unit-VIII comprises of 5 hours field work to be submitted by each candidate to the Teacher in-charge for evaluation latest by 15 December, 2019.

**Exam Pattern:**            **End Semester Examination- 75 marks**  
                                      **Project Report/Field Study- 25 marks [based on submitted report]**  
                                      **Total Marks- 100**

The structure of the question paper being:

**Part-A**, Short answer pattern with inbuilt choice        – **25 marks**

Attempt any five questions out of seven distributed equally from Unit-1 to Unit-VII. Each question carries 5 marks. Answer to each question should not exceed 2 pages.

**Part-B**, Essay type with inbuilt choice                                – **50 marks**

Attempt any five questions out of eight distributed equally from Unit-1 to Unit-VII. Each question carries 10 marks. Answer to each question should not exceed 5 pages.

### Project Report / Internal Assessment:

**Part-C**, Field work – **25 marks [Field work equal to 5 lecture hours]**

The candidate will submit a hand written field work report showing photographs, sketches, observations, perspective of any topic related to Environment or Ecosystem. The exhaustive list for project report/area of study are given just for reference:

1. Visit to a local area to document environmental assets: River / Forest/ Grassland / Hill / Mountain / Water body / Pond / Lake / Solid Waste Disposal / Water Treatment Plant / Wastewater Treatment Facility etc.
2. Visit to a local polluted site – Urban / Rural / Industrial / Agricultural
3. Study of common plants, insects, birds
4. Study of tree in your areas with their botanical names and soil types
5. Study of birds and their nesting habits
6. Study of local pond in terms of wastewater inflow and water quality
7. Study of industrial units in your area. Name of industry, type of industry, Size (Large, Medium or small scale)
8. Study of common disease in the village and basic data from community health centre
9. Adopt any five young plants and photograph its growth
10. Analyze the Total dissolved solids of ground water samples in your area.
11. Study of Particulate Matter (PM<sub>2.5</sub> or PM<sub>10</sub>) data from Sameer website. Download from Play store.
12. Perspective on any field on Environmental Studies with secondary data taken from Central Pollution Control Board, State Pollution Control Board, State Science & Technology Council etc.

### Unit-I

#### **The multidisciplinary nature of environmental studies**

Definition, scope and importance, Need for public awareness

**(2 lectures)**

### Unit-II

#### **Natural Resources: Renewable and non-renewable resources:**

Natural resources and associated problems.

- (a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.
- (b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.
- (c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
- (d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
- (e) Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies.
- (f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.
  - Role of an individual in conservation of natural resources.
  - Equitable use of resources for sustainable lifestyles.

**(8 Lectures)**

### Unit-III

#### **Ecosystems**

- Concept of an ecosystem
- Structure and function of an ecosystem
- Producers, consumers and decomposers
- Energy flow in the ecosystem
- Ecological succession
- Food chains, food webs and ecological pyramids
- Introduction, types, characteristic features, structure and function of the following ecosystem: Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, ocean estuaries)

**(6 Lectures)**

### Unit-IV

#### **Biodiversity and its conservation**

- Introduction – Definition: genetic, species and ecosystem diversity
- Biogeographical classification of India
- Value of biodiversity: consumptive use, productive use, social, ethical aesthetic and option values
- Biodiversity at global, national and local levels
- India as a mega-diversity nation
- Hot-spots of biodiversity
- Threats to biodiversity: habitat loss, poaching of wildlife, man wildlife conflicts
- Endangered and endemic species of India
- Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity

**(8 Lectures)**



### **Unit-V**

#### **Environmental Pollution :**

##### **Definition :**

- Causes, effects and control measures of Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear pollution
- Solid waste management: Causes, effects and control measures of urban and industrial wastes.
- Role of an individual in prevention of pollution
- Pollution case studies
- Disaster management: floods, earthquake, cyclone and landslides

**(8 Lectures)**

### **Unit-VI**

#### **Social Issues and the Environment**

- From unsustainable to sustainable development
- Urban problems and related to energy
- Water conservation, rain water harvesting, watershed management
- Resettlement and rehabilitation of people; its problems and concerns. Case studies.
- Environmental ethics: Issues and possible solutions
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies.
- Wasteland reclamation
- Consumerism and waste products
- Environmental Protection Act, 1986
- Air (Prevention and Control of Pollution) Act, 1981
- Water (Prevention and control of Pollution) Act, 1974
- Wildlife Protection Act
- Forest Conservation Act
- Issues involved in enforcement of environmental legislation
- Public awareness

**(7 Lectures)**

### **Unit-VII**

#### **Human Population and the Environment**

- Population growth, variation among nations
- Population explosion – Family Welfare Programmes
- Environment and human health
- Human Rights
- Value Education
- HIV / AIDS
- Women and Child Welfare
- Role of Information Technology in Environment and Human Health
- Case Studies

**(6 Lectures)**

### **Unit-VIII**

#### **Field Work**

- Visit to a local area to document environmental assets River / forest / grassland / hill / mountain
- Visit to a local polluted site – Urban / Rural / Industrial / Agricultural
- Study of common plants, insects, birds
- Study of simple ecosystems-pond, river, hill slopes, etc

**(Field work equal to 5 lecture hours)**

#### **References:**

1. Bharucha, E. 2005. Textbook of Environmental Studies, Universities Press, Hyderabad.
2. Down to Earth, Centre for Science and Environment, New Delhi.
3. Heywood, V.H. & Waston, R.T. 1995. Global Biodiversity Assessment, Cambridge House, Delhi.
4. Joseph, K. & Nagendran, R. 2004. Essentials of Environmental Studies, Pearson Education (Singapore) Pte. Ltd., Delhi.
5. Kaushik, A. & Kaushik, C.P. 2004. Perspective in Environmental Studies, New Age International (P) Ltd, New Delhi.
6. Rajagopalan, R. 2011. Environmental Studies from Crisis to Cure. Oxford University Press, New Delhi.
7. Sharma, J. P., Sharma. N.K. & Yadav, N.S. 2005. Comprehensive Environmental Studies, Laxmi Publications, New Delhi.
8. Sharma, P. D. 2009. Ecology and Environment, Rastogi Publications, Meerut.
9. State of India's Environment 2018 by Centre for Sciences and Environment, New Delhi
10. Subramanian, V. 2002. A Text Book in Environmental Sciences, Narosa Publishing House, New Delhi.

**Paper–I: Digital Printing**

**Time:3 Hrs.**

**M. Marks: 50**

**Instructions for the Paper Setters:–**

**Note:**

- 1. In theory eight questions are to be set in all. The candidates are required to attempt five of them. All questions are to be of equal marks.**
- 2. The student can use only Non–Programmable & Non– storage type calculator.**

**Digital Printing:** Introduction to digital printing fundamentals Pixel image, Digital image, Digitization, half toning colour reproduction. color jumbs, resolution and its qualities., Electrophotography, Ionography, Thermography, Electrography, Photography, X–graphy, Hybrid

Printing systems. 16 hrs

**AC Quiring:** Scanning of different original, Selection of technology of programme. Transfer of digital photographs. 08 hrs

**Documentations:** Image file formats TIFF, EPS JPEG files text files and past discriptions languages. 08 hrs

**On Demand Printing & Publishing Concepts:** Future on demand .Number of originals and run length. New technologies shift existing methods. Economics of on demand printing– Economics of long run. Efficiencies of Digital on demnd work flow. Shortrun pricing paradox. 16 hrs

**Networking:** Networks for printing, networks for publishing, networks for inhouse. Ideal network. WAN (wide Area Network). Flexibly. Changing Markets for print. Market Projection of changes in the no. of colors. 12 hrs

**References:**

1. Demand Printing – Howard M. Fenten, Frank J. Romano
2. Brett, G, Short–run Digital Colour Printing, Leatherhead: Pira International, 2001.
3. H. Kipphan, Handbook of Print Media, ISBN: 3–540–67326–1 Springer–Verlag Berlin Heidelberg, 2001.

**Paper–II: Book Publishing**

**Time:3 Hrs.**

**M. Marks: 50**

**Instructions for the Paper Setters:–**

**Note:**

1. **In theory eight questions are to be set in all. The candidates are required to attempt five of them. All questions are to be of equal marks.**
2. **The student can use only Non–Programmable & Non– storage type calculator.**

**Book Publishing:** Definition and concept, parts of a book, basic steps in book publishing ,areas of publishing–general publishing, educational publishing, professional publishing and reference publishing. 12 hrs

**Editorial Process and Development:** copy, editing, Page makeup, Proofs, Discussion with the author, editing educational material, editorial techniques: stylesheet, reference aids, authors and his manuscripts, writing text books for children. 10 hrs

**Publishing–House**–the role of commissioning editor, the desk editor, the designer, the production manager, the sale/marketing manager, the publicity manager, the warehouse or distribution department. 10 hrs

**Press Organization:** Hierarchy–editorial organization, mechanical aspects of organization – composition, printing, basic operation business aspects of organization flowcharts of staff in organization, Circulation and Advertisement departments, distribution channels. 16 hrs

**Production & Estimating:** In book publishing First copy cost, manufacturing cost, overheads, variation in price of same size books, published price of books, Technical aspects of production from receipt of manuscript to completion of book, gestation period. 12 hrs

**References:**

1. D. Raghavan, An introduction to Book Publishing, Institute of Book Publishing, New Delhi, 1988.
2. John P. Dessauer, Book Publishing, R.R. Bowker Company, New York & London, 1981.
3. Roy Paul Nelson, Publication Design, Wm. C. Brown Company Publishers, Dubugue, Iowa, 1983.
4. Charles Clark, Publishing agreement, George Allen & Unwin, London, 1984.

**Paper–III: E–Publishing**

**Time: 3 Hrs.**

**M. Marks: 50**

**Instructions for the Paper Setters:–.**

**Note:**

- 1. In theory eight questions are to be set in all. The candidates are required to attempt five of them. All questions are to be of equal marks.**
- 2. The student can use only Non–Programmable & Non– storage type calculator.**

**Electronic & On–line Publishing:** Cultural and social impact. Hybrid formats for books and magazines needing shelf–appeal. Create your own books and other publications. 12 hrs

**Multimedia in Perspective:** Breaking the physical barriers of print. Limitless opportunities. Cooperative writing. Easy, economical publishing. Future trends. Turn your work into multimedia. Selecting authoring software, Begin with research. Marketing to the world. Editorial publicity. Getting your disks and files safely to the right place. Prepublication offers for positive cash flow. Beware the digitized versions to vanity publishing. 16 hrs

**Choosing a Publishing Program:** Paperless magazines, The impact of electronic publishing on your career. Footloose wordsmiths. 04 hrs

**Library Issues:** Input and processing of digital data, cataloging, identifiers, linking and metadata librarians become publishers and distributors. Writers and editors. Editors need new skills. Scientists & academics. Educations. Produce an e–book to help your business. E–books as agents for change. Guard and nurture your intellectual property rights. Test cases. Windfalls and pitfalls. 13 hrs

Output on digital devices and printers, computer control system for digital work flow, Electronic Ink –display technology, working principle, impact on newspaper industry, Practical tools for writers. Reducing the hassles in OCR and scanning. 15 hrs

**References:**

1. Complete Reporter Fundamental of News Gathering by Julian Allyn and Bacon, London
2. Reporting for Media by Fred Felder Harcourt Publication, London
3. Paperless Publishing by Colin Haynes McGraw–Hill, USA
4. Electronic Printing and Publishing by Michael B. Spring, Marcel Dek

**Paper–IV: Lab I: Practical Based on Plotter Printing and Process**

**M. Marks: 75**

- Plotter printing and process with print campaign using any Graphics Software (Corel Draw, Adobe Photoshop etc.) submit any seven assignments.

**Paper–V: Lab II: Practical Based on Binding and Finishing**

**M. Marks: 75**

Finishing Techniques and principles.

Adhesives for finishing and packaging.

Lamination techniques and UV curing.

Integrated machines for finishing, Knowing the tools, equipments and machines in department, knowing and handling the materials.

**Preparation of the following types of bindings:**

1. Half Bound Account Books.
2. Full Bound Books.
3. Perfect Binding.
4. Loose–Leaf Binding.

**Preparation of:**

- a) Saddle/side stitched Booklets.
- b) Saddlegiat sewing of Booklets, magazines.
- c) Receipt Book
- d) Quarter Bound Note Book – flush sewing.

A/c books sewing on tapes. Binding of Half Bound A/c Book – constructive aspects through durability will be obtained. Binding of full bound, case bound, Publishers. Book emphasis will be given on decoration – Print finishing operation – Gold blocking, embossing, edge decoration, etc.

**Preparation of:**

- a) Court case file,
- b) Tag binder,
- c) Portfolio,
- d) Loose leaf book,
- e) Cheque book
- f) Perfect Bind binding
- g) Preparing of old books.

**Paper–VI: – Workshop**

**M.Marks:100**

Offset printing and Digital Printing

Raster Graphics and Vector Graphics, Principles of Graphics, Graphics Tool, Navigator Panel, Colour Pallets, 3D printing

Basic photography, Shutter Angles, Shutter Speed and Page Layout Designing

**Project:**

- Catalogue Designing
- T–Shirt Designing by using Screen printing
- DVD Cover / Sticker Designing
- Logo designing using Plotter
- Pamphlets Designing and Printing
- Magazine/Book Title Designing
- Product Designing
- Indoor/Outdoor Poster designing
- Flexography designing and Printing
- Portfolio Designing and Printing



**Paper–I: – Project Dissertation**

**M. Marks: 400**

**General Instructions:**

Report based on Major Project / Training in any Publishing House/ Newspaper Publishing Press shall be submitted to the College/Institute till April 30.

The evaluation of the work shall be done by the following panel of examiners prior to the theory examination:

- (a). Internal Examiner
- (b). Head/ Head Nominee of coordinating department of the college for this UGC scheme
- (c). External Examiner (to be appointed by the University)