

**KERALA STATE
AUDIO-VISUAL AND REPROGRAPHIC CENTRE,
THIRUVANANTHAPURAM**

CERTIFICATE IN OFFSET PRINTING TECHNOLOGY

PROSPECTUS

✓ The Department of Technical Education and the Kerala State Audio-Visual and Reprographic Centre, Government of Kerala will be jointly conducting the One year Certificate in Offset Printing Technology. For Candidates successfully completing this course, Certificate will be awarded by the State Board of Technical Education, Government of Kerala.

Printing is the preservative of all arts, has an important role in the world's history. Now printing industry becomes the fastest developing industry in the world. As fast developing industry, it required more professionals in and abroad.

ELIGIBILITY FOR ADMISSION

✓ Those who have passed Pree Degree/+2/VHSE/Diploma in any discipline/ Certificate in advanced offset printing conducted by the State Board of Technical Education, Government of Kerala or any other equivalent examinations will be eligible to seek admission to the course. Admission will be based on the total marks obtained in the qualifying examination.

DURATION AND VENUE

✓ The normal duration of the course is One year comprising of two semesters (inclusive of examinations). The classes will be held on all week days 3 hrs. per day. The course will be conducted at the following centres.

1/16

[Handwritten signature]

[Handwritten signature]

1. Thiruvananthapuram
2. Kollam
3. Alappuzha
4. Pathanamthitta
5. Kottayam
6. Thodupuzha
7. Ernakulam
8. Tirur
9. Kozhikode

Batch

There will be three batches in each centre

A Batch	-	10.00 am	1.00 pm
B Batch	-	2.00 pm	5.00 pm
C Batch	-	5.00 pm	8.00 pm

If any batch, there are not sufficient number of candidates to run the course economically, that batch might be merged with any other batch of another timing or might be cancelled. Individual complaints by any candidate against unavoidable changes in class timing will not be entertained and he/she cannot ask for any compensation on this score. In the case of any dispute, Thiruvananthapuram will be legal jurisdiction.

Special Privilege

After successful completion of the course candidates will be given Six months employment training free of cost in our major Production units.

Fees Structure *

Scheme- I Lumpsum payment of Rs. 10000 at the time of admission.
Scheme- II Two installments of Rs.5250. each at the first month of each semester.

Scheme-III Eleven installments of Rs.1000/- each from the first month to eleven month.

* Option of the payment should be selected at the time of admission.

2/16  

Fee once paid will not be refunded under any circumstances. However 90% of the fee will be refunded if the candidate has not attended any class.

Caution Deposit

A refundable caution deposit of Rs. 500/- will be paid at the time of admission. The amount will be refunded only after the completion of the course.

Application

Candidate may apply in the prescribed proforma, cost of which is Rs. 100/- (Rs. 125/- for obtaining by registered post), attaching self attested copies of certificates and mark lists of their qualifying examinations.

Date of issuing Application Form

Last Date of Submission of Application Form :

Probable Date of Commencement.

The cover should be superscribed with 'Application for One Year Certificate in Printing Technology'.

Name & Address of Training Centres.

Thiruvananthapuram
The Training Officer
KSAVRC, City Centre,
West Fort, Punnapuram
Thiruvananthapuram
PIN - 695 024.
Phone: 95471 2474720

Kollam
The Officer-In-Charge,
KSAVRC, Sub Centre,
Plakkil Building No.719,
Ward no. 27,
Kaikkulangara North,
Anchukallumoodu,
Thiruvallavaram PO, Kollam.
Phone: 95474 2798863

3 / 16

S.L.

AW

Alappuzha

The Officer-In-Charge,
KSAVRC, Sub Centre,
S.T. Reddiar & Sons Building,
IInd Floor, East of Iron Bridge,
Alappuzha - 688011
Phone: 95477 2253968

Kottayam

The Assistant Manager,
KSAVRC Sub Centre,
MES Complex, Kodimatha,
Kottayam South P.O
Kottayam 686039.
Phone: 95481 2362433

Ernakulam

The Training Officer,
KSAVRC, Sub Centre
(Training Unit),
Khaleefa Buildings,
Near Tel. Exchange,
SRM Road, Kochi,
Ernakulam North - 18.
Phone: 95484 2400196

Kozhikode

The Officer-In-Charge,
KSAVRC Sub Centre,
(Production Unit), Nellikode,
Chevayoor PO, Kozhikode-673 017.
Phone: 95495 2356591

Pathanamthitta

The Officer-In-Charge,
KSAVRC, Sub Centre,
Faizal Mansion,
Opposite Collectorate,
Pathanamthitta - 685 584
Phone: 95468 2225490

Thodupuzha

The Officer-In-Charge,
KSAVRC, Sub Centre,
Puthumanathody Building,
Pala Road, Thodupuzha,
Idukki - 685 584.
Phone: 95486 2227625

Tirur

The Training Officer,
KSAVRC, Sub Centre
Mullassery Commercial Complex,
Near Municipal Bus Stand,
Tirur, Malappuram - 676 101
Phone: 95494 2423608

Any other details not specifically mentioned herein will be decided by the Managing Director, Kerala State Audio Visual and Reprographic Centre and the decision will be final.

Managing Director

4/16

Shw

Shw

CERTIFICATE IN OFFSET PRINTING TECHNOLOGY

SCHEME OF STUDY

Semester - I

Code No.	Subject	Theory Hrs/Week	Practical Hrs/week	Marks		Total
				Internal	Written	
CPT 101	Theory Computer Typesetting, Image Generation and Colour Scanning	3.0	-	50	100	150
CPT 102	Printers Chemistry and Basic Engineering	3.0	-	50	100	150
CPT 103	Practical Dummy Preparations and Type Setting	-	6.0	50	100	150
CPT 104	Printer's Chemistry and Basic Engineering	-	6.0	50	100	150
	Total	6.0	12.0	200	400	600

Semester - II

Code No.	Subject	Theory Hrs/Week	Practical Hrs/week	Marks		Total
				Internal	Written	
CPT 201	Theory Designing and Image Developing	3.0	-	50	100	150
CPT 202	Machine Work and Finishing	3.0	-	50	100	150
CPT 203	Practical Place Making and Camera Work	-	3.0	50	100	150
CPT 204	Machine Work and Finishing	-	6.0	50	100	150
CPT 205	Project Work, Record	-	2.0	100	50	150
CPT 206	Seminar	-	1.0	50	-	50
	Total	6.0	12.0	350	450	800

5/16

8/16

QAW

RULES & REGULATIONS FOR EXAMINATIONS AND PROMOTIONS

1. The Examination will be conducted by the Controller of Technical Examinations, Directorate of Technical Education, Thiruvananthapuram at the end of each semester.
2. The Course fee should be remitted within the date announced by the Controlling Officer. Otherwise a superfine of Rs. 25/- will be imposed for every fortnight.
3. Candidate will be given 3 chances including the Regular Examinations. If, even after the 3 chances he or she fails to get pass mark in the subject, he or she has to appear for the exam in the subject or in the subject declared as equivalent, as per the revised syllabi either by attending classes conducted by the centre or by selfstudy.
4. Candidates for the Certificate in Offset Printing Technology Examination must have completed the respective course of study acquiring not less than 80% of attendance in each semester.
5. Shortage of attendance upto 15% can be condoned as per existing rules in deserving cases on payment of prescribed condonation fee on the recommendation of the Managing Director, Kerala State Audio-Visual and Reprographic Centre, Thiruvananthapuram.
6. No candidate will be eligible to register for any semester examination unless he/ she secure a minimum sessional mark of 50% in each subject in the semester.
7. The candidate should repeat the entire semester if he/she fails to fulfil the above conditions even in one subject.
8. The candidate should have registered for the first semester examination to undergo the second semester.
9. Candidate will not be allowed to appear for examination piecemeal. If in case this happened, the candidates registration shall be automatically cancelled at any stage of the examination process.
10. Supplementary examination fee Rs. 200/- per paper is to be charged subject to a maximum of Rs. 600/- per semester.
11. There will be provision for the cancellation of the candidature for an examination provided an application is to be given to the controller of Technical Examinations within 7 days after the conduct of last paper in the theory examination.

6 / 26 8/2

(Signature)

12. There will be provision for revaluation of answer books of theory examinations provided an application is given to the Controller of Technical Examinations within 15 days after the publication of examination results, along with the prescribed revaluation fee.
13. There will not be any revaluation for practical subjects.
- ✓ 14. Candidates who secure not less than 40% marks in theory paper and 50% marks in practical will be declared to have passed in that paper.
15. Candidate who pass all papers of one semester and secure not less than 50% in the sessional in each subject will be declared to have passed the examinations.
16. Aggregate marks for two semesters in the first appearance will be taken for awarding class.
17. If a candidate fails in a subject and passes in the subsequent attempts, the minimum for pass in the subject will be taken into account for awarding class, irrespective of his/her actual marks.
18. Candidate who pass the second semester Examination in one sitting and secure 75% marks and above in aggregate will be placed in First Class with Distinction.
19. Candidate who pass the second semester Examinations in one sitting and secure not less than 60% and below 75% will be placed in First Class.
20. Candidate who pass the second semester examination in one sitting and secure not less than 50% and below 60% will be placed in second Class.
21. a) All other candidates who pass will be placed in the pass class.
b) If a candidate fails in second semester and has secured not less than 60% marks in the second semester, he/she has the option to write the failed subjects alone or repeat the final examination in full in the next chance. In the latter case the candidate is eligible for First Class/Distinction as the case may be depending upon the marks secured in the second attempt. In the former case the student will be placed in pass class only if he/she passes the examination.
22. If a candidate discontinues the course, after completing one semester and then leaves the course, he or she shall be considered for the award of Certificate in Printing Technology only if he or she shall complete the course within a span of 3 Years, from the date of his or her absence from the course.

7/16





OFFSET
CERTIFICATE IN PRINTING TECHNOLOGY
DETAILED SYLLABUS

101 - COMPUTERISED TYPESETTING, IMAGE GENERATION AND COLOUR SCANNING

Sl. No.	Subject	Duration (in hours)
1.0	Introduction to Computers - Data and Information - Advantages of Computers - Functional Components - Classification of Computers - Number Systems - Peripheral Devices - Hardware - Software - Computer Languages - Translators - Networks - Operating System	5
2.0	MS-DOS - Introduction - Concepts of Files and Directories - Naming Concepts - System Files - Internal Commands - Wildcards - External Commands Windows - Introduction - GUI - Menus - Dialog boxes - Icons - Structure of a Window - Desktop - Finding Files/Folders - Explorer - Folders - Files - Recycle Bin.	5
2.1	MS-WORD - Introduction - Formatting - Headers and Footers - Text improvement features - Find and Replacement - Mailmerge - Document automation; Outline - Tables of Contents and index - Macros	5
2.2	MS-Excel - Introduction - Entering and Editing cell entries, Working with numbers - Changing Worksheet; Layout; Other formatting options; Using Financial and Statistical Functions, Naming Ranges; Editing and formatting Charts - Spread sheet application.	5
2.3	Pagemaker 6.5 - Components of Pagemaker Window - Editing - Adding Design Elements - Working with Styles - Adding colours - Using Story Editor - Linking Text and Graphics - Creating Tables and Table of Contents.	10
2.4	Photoshop 7 - Basic Theory - Bitmaps and Vectors - Pixles and Resolution - RGB and CMYK Colour models - RGB setup - CMYK setup - Grayscale setup - Monitor Calibration - Working Environment. Files - Selection Modes - Transformations - Colour modes and Colour models - Adjusting Colour - Layers - Special Effects - Photo repair - Black and White & Colour - Printing.	10
2.5	Introduction to Illustrator COLOUR SCANNING	
1.0	Digital imaging - Difference between Raster image & Vector image	2

8/16

SLW

AW

2.0	Scanner Operation and type of Scanners - Basic Concepts of image capture - video & digital Photography	3
3.0	Moving & Storing data - Focal Talk, Sneaker net; Ethernet - LAN's identification of the best solution(s) for moving graphic file - Two basic area net workings 10 BASE-5; 10 BASE-2 and 10 BASE-T	3
3.1	Primary, removable and back-up Storage Devices; Monitors Colour Quality.	4
3.2	Laser Printers - Printer resolution - Line and tone reproduction- Type of Colour Printer - Thermal Wax Printers - Inkjet Printers, Phase Change Solid Ink Printer, Dye sublimation Printer.	4
3.3	Purpose of Raster Image Processor (RIP) and Image Setter - Film Imager or recorder - Film Processor	3
3.4	Application Software in Pre-Press - Image manipulation and Processing Software - Drawing Page Layout and Utility Software.	6
4.0	Colour Separation - Colour Theory - Light & Pigment - Additive and Subtractive synthesis - Separation Theory - Half Tone Dots and Colour masking - Tone correction Sharpness & Enhancement.	4
4.1	Direct and indirect Screen Colour Separation method, Transparent and reflection Copy, Direct and Indirect screen method - Electronic Colour Separation, Scanning Analysis and modification - Storage and image editing	3
4.2	Exposure - Continuous Tone Scanners - Contact Screen Scanners - Dot - Generating Scanners	2
4.3	Achromatic Colour - GCR; UCR Dot etching - Wet Dot Etching; Dry dot etching Colour addition & reduction	1

9/16

2 slw

slw

35 hours

102 - PRINTERS CHEMISTRY AND BASIC ENGINEERING

Sl. No.	Subject	Duration (in hours)
---------	---------	---------------------

BASIC ENGINEERING

1.0 AC and DC Circuits 7

Modern Atomic Theory - Electric Current - Unit Direction - Electric Potential - Potential Difference and Unit - Resistance and Conductance - Effects of Temperature on Resistance - Ohms Law - Power and Energy - Resistance in Series and Parallel.

Magnetic Field, Pole Strength, Flux, Flux Density, Permeability- Magnetic Effect of Electric Current - Force on a current carrying conductor in a Magnetic Field.

Electro - Magnetic Induction - Faraday's Laws - Direction of Induced e.m.f. - Self and Mutual Inductance.

Alternating Current - Cycle - Amplitude - Frequency - RMS Value (definitions only).

Merits of Polyphase - Generation - Interconnection

1.0 Motors 7

Three Phase Induction Motor - Principles of Operation

Single Phase - Working Principle of Split Phase - Capacitor Start and Run - Universal - Stepper Motor.

DC Motors - Construction - Working - Classification Starting - Speed Control

Transformer - Working Principle - Losses and Efficiency

3.0 Electronics 7

Energy Level Diagram - P-Type, N-Type, Intrinsic and Extrinsic Semi-Conductor - Majority and Minority Carriers - PN Junction - Characteristics - Diode as a rectifier - Half, Full, Bridge Rectifiers - Zener Diode - Bi-Polar Junction, Transistor - Operation - Biasing - Construction of FET, Operation and Characteristics

SCR - Operation - Characteristics Triggering - Turning off - Application of SCR - Controlled Rectifiers - Speed Control of DC Motor - Working Characteristics of Diac, Triac and UJT.

4.0 Mechanical Principles 7

Mechanical components - Nuts - Bolts - Screws - Studs - Keys - Pins - Cotter - Lever - Shaft - Function - Classification and uses of Coupling, Gears, Belts, Pulleys and Bearings - Types of Cam and uses - Chain drives - Chain and Sprocket Wheel - Clutches and Breaks - Welding - Necessity - Classification - Advantages and Limitations - Soldering - Application and Classification - Riveted Joints - Applications and Classifications.

10 / 16

Uses of Feeler - Ring - Plug and Wire Gauge - Method of Lubrication, Types of Lubricants - Characteristics and Applications - Preventive Maintenance - Type and Applications - Maintenance Shop Equipment and Machine required for Maintenance Shop - Periodical Maintenance.

5.0 Hydraulics and Pneumatics

7

Types of Fluids - Water - Petroleum Oil - Synthetic Fluid - Service Properties - Viscosity - Demulsibility - Stability - Lubricating Value - Rust - Prevention

Pneumatic Power Units - Area of Application - Identification of Pneumatic Symbols - Principle and Operation of Compressor - Cylinder arrangements - Capacity of Air Tank, Pressure Switch Control - Method of Coupling the Motor to the Compressor

Directional Control Valves - Operation of Manually Operated Three Way and Four Way Valves - Flow Control Valves - Operation of Manually Operated and Cam Operated Valves - Air Cylinders - Types, Parts and Functions.

no vacuum

PRINTER'S CHEMISTRY

1.0 Units and Measurements

5

Introduction - Units - Fundamental Units and Derived Units, System of Units - SI Units, Dimensions of Physical quantities worked examples - Vernier - Principles of Forward reading Vernier. Measurements of Dimensions of an object, using Vernier Calipers. Worked examples. Screw Gauge. Measurement using Screw Gauge. Worked examples.

2.0 Simple Machines

5

Definition - Efforts - Load, M.A, V.R, and efficiency - Relation between M.A, V.R and efficiency, inclined plane - Screw Jack - Description.

3.0 Atom

5

Atom and Molecule, Valency, Molecular formula, Atomic weight, Equivalent Weight of an element, Chemical Equation, Structure of atom, Electronic configuration, Photo-Electric Effect.

4.0 Acid, Base and Redox Reactions

5

Acids and Bases - Different Concepts - Oxidation, Reduction, Redox reaction. Equivalent weight of oxidizing agent, Equivalent weight of Reducing Agent.

Definition of pH, pH Scale, Calculation of pH, Determination of pH value using i) pH meter ii) Universal indicator.

11 / 26

Handwritten signature

Handwritten signature

5.0	Water	4
	Hard and Soft Water, Type of hardness, Degree of Hardness, Disadvantages of using hard water 1) Wastage of soap 2) Malformation of colour in Printing Industry 3) Formation of Boiler Scales	
6.0	Colloids	5
	Definition - Types of colloids - Purification 1) Condensation 2) Dispersion method - Purification - Dialysis, properties - Tendril effect, Brownian movement, Electrophoresis, Coagulation - Industrial Application - Smoke Precipitation, Treatment of sewage, purification of drinking water, Emulsifying action of soap.	
7.0	Polymers	5
	Polymerisation - Types of Polymerisation and polymers - Plastics, Plasticisers and fillers, Thermoplastics, Thermosetting plastics - Advantages over traditional materials	
	Rubber - Natural and synthetic Rubber - Vulcanisation - uses Fibre - Natural fibre Synthetic Fibre	
8.0	Lubricants	4
	Principle of Lubrication - Types of Lubricants Adhesives - Definition - Advantage - Natural and Synthetic Adhesives - Application	
9.0	Environmental Pollution	2
	Impact of Pollution on environment-Kinds of Pollution - Types of Pollution	

12/26


[Handwritten signature]

[Handwritten signature]

201- DESIGNING AND IMAGE DEVELOPING

Sl. No.	Subject	Duration (in hours)
1.0	The Printing Industry - An Overview Introduction to Printing Industry; Originals for Print Production	2
1.1	Design Concerns for Printing - Design Consideration, Imposition Schemes.	5
1.2	Advertising techniques - Copy Concept; Principles of Design Materials for layout and Paste-up	2
2.0	Layout for Leaflets, Pamphlets, Booklets, Catalogues, Brochures, Manuals, Books, Magazines, News Papers, Business Manuals, Commercial Stationery, Labels, Carton, Folders and other forms of direct mail literature. Factors to be considered in Print Planning.	2
2.1	Elements of Design - Graphic Design Principles, Layout Procedure.	2
2.2	Layout Preparation - Materials, Equipments and techniques used in the Preparation of layouts, Disposition of Elements and Space- Principles of symmetrical and asymmetrical arrangements – Optic Centre and Geometric Centre.	3
3.0	Preparation of the layout-Staffer and House style - Page structure, Illustration, Text Matter - Dummy Preparation.	4
4.0	Camera Operation - Nature of Light - Camera fundamentals - Parts of Camera - Different types of Camera - Basic exposure and Camera Operation; Chemical processing; Chemical reversal - Contact Process	5
4.1	Line negative making - Copy - Suitability Scaling the Copy – Types of Copy - Steps for line negative making - qualities of negatives.	5
4.2	Halftone Photography; Density, Contrast and tone Densitometry - Halftone Screens - Preparation of Halftone Screens - Calculation of Halftone exposures - Halftone negative making; Correcting defects.	4
4.3	Special Effects of photography - Duotones - Striping & Proofing - Multiflat registration - Multiple - Colour Photo Mechanical proofing, Digital Proofing.	2
5.0	Surface Preparation - Characteristics of image carrier for lithography; Stone, Metals, Steels, Paper and Photo Polymer.	6
6.0	Plate making room requirements; equipment and accessories - illumination, Plate making Sinks - Whirless - Printing down framer - Light Sources - Deep etch pads, grid, Automatic plate processor and air conditioning - Relative humidity.	4

13/16

6.1	Platemaking materials and Chemicals - coating materials Glue - Chrome alum - Poly vinyl alcohol, Diazo Compounds - Photopolymer plates Processing Chemicals - Acid - Dichromate Gum Arabic - Magnesium nitrate Ferric nitrate - Phosphates, Solvents Lacquer solvents..	4
6.2	Chemistry of Plate Making, Photochemical reaction, Action of gum Arabic solution on plates	1
6.3	Characteristics of hotability, Ink receptivity of image area - Pre Sensitised Plates - Wipe-on plates, Bi-metal plates - Computer - Plate (CTP) Systems - Hydrophillic & Oleophillic nature of the Plate Surface, Preparation of different types of Plates, Advantages and disadvantages of Different types of Plates.	10
6.4	Pre-makeready of Plate making process - Graining - Dry brush graining - Wet brush graining - Ball brush graining - Chemical and Electrochemical graining - Counter etching.	4
6.5	Surface Plate Making Process - Coating - Exposure - Developing - De-sensitisation and storing.	4
6.6	Plate Making, Trouble Shooting - Quality Controlling devices.	4

14/26

Shl
7

Shl

202 - MACHINE WORK AND FINISHING

Sl. No.	Subject	Duration (in hours)
1.1	Planography - Origin and History - Direct Printing	
	Direct Printing Processes - Lithography, lithographic Principles- Indirect Printing Processes - Offset	3
1.2	Materials, tools and equipments; Proofing Devices, Mechanical & Operational features	2
2.0	Sheet fed Offset machines - Mechanical Features, sheet feeding mechanism - Sheet controls - Sheet register - Sheet insertion and transfer - Grippers - Inking system; Conventional & multi roller systems - Dampening system - Dampeners - Dampening cloth - Wash up devices-Plate cylinder-Blanket cylinder - Impression cylinder - Cylinder adjustments-packing of Cylinder - Delivery mechanism -	9
3.0	Multi colour offset sheet fed machines - Mechanical Features; feeding and registration control-Sheet insertion and transfer - Grippers - Inking System - Ink Distribution Mechanism Dampening System - Conventional and Multi-Roller Distribution System. Plate Cylinder, Impression Cylinder and Blanket Cylinder - Wash-up Devices, Adjusting Rollers, Cleaning of Dampeners, Packing and Adjustments of Cylinders	7
4.0	Cylinders - Delivery Mechanism, Sheet Slowing Devices - Air Blowers - Delivery Board.	2
5.0	Troubles and Remedies in Offset Presses - Major Printing Troubles, Machine Defects, Blanket Troubles, Dampening Troubles, Paper and ink Defects, Others - Heat - Set Ink Troubles	3
6.0	Web Offset Machines, Driving Mechanisms, Real Stand Unit, Tension Rollers, Automatic Real Changing Mechanism, Hydro-Pneumatic Web aligning Unit, Web Control Unit, Web In-Feeds System, Printing Units	5
6.1	Inking and Dampening System-Delivery operations, ink drying Unit PIV Gear Mechanism, Slitter on RTF Roller, Cutting Cylinder and Jaw Cylinder, Folding Unit, Cutting Devices - Continuous Stationery - Printing - Feeding Unit - Printing Unit - Delivery - Slitting Mechanism - Perforating Units - Numbering Unit (Rotary and Offline) - Collator - Pack to Pack -	4
	PRE-MAKE READY	
7.0	Plate Register Checking - Plate Proofing - Wash-up and Cleaning of Machines - Storage of Materials and Chemicals - Machine Maintenance	3

15/16

[Handwritten signature]

[Handwritten signature]

MAKE READY

8.0	Partial Make Ready and Complete Make Ready - Ink - Setting - Dampening Setting - OK Sheet.	2
9.0	Multi-colour Sheet-fed and Web Presses-Multi-Colour Printing	2
10.0	Offset Blankets-Types of Blankets-Manufacturing of Blankets- Squirring - Care and Storage of Blankets - Blanket Washers - Roller and Blanket Problems, Remedies	3
11.0	Trouble Shooting - Reasons for printing Troubles - Identification and Remedies	2
12.0	Ink Ink Nature - Ingredients - Drying method - Metallic and Fluorescent Pigments - Resins - Waxes - Lithography, Web - Offset Inks - Heat - Set Ink, Dry Offset Ink - Gravure, Flexo and Screen Printing inks - Varnishes.	4
12.1	Paper History - Source - Different types of Papers - Brightness, Whiteness, Colour - Gloss - Opacity - Smoothness - Strength - Sizing - Calendering - Classification of Paper - Paper Sizes and Weights - Board	4
13.0	Quality Control Define Quality and Quality Control - Quality Control before, during and after Printing - Dot Gain - Method of Adjustment of Dot Gain - Factors influencing Dot Gain - Optical Density - quality Control Devices	2
14.0	Finishing - Types of Binding-Folding-Gathering-Collating-Making up-Sewing - Pasting up	10
14.1	End papers - Gluing Rounding - Backing - Cutting - Split Board - French Joint-Edge decoration	3
14.2	Covering - Covering materials - Modern types of Binding	3
15.0	Printers Costing - Basic Paper - Board Calculations	2

16 / 16

SLW

09/10/2020
To POZE(TD)