

Unit 3: Homogeneous linear differential equations, Simultaneous differential equations. Exact linear differential equations of nth order. Existence and uniqueness theorem.

Unit 4 : Linear differential equations of second order. Linear independence of solutions. Solution by transformation of the equation by changing the dependent variable/the independent variable, Factorization of operators, Method of variation of parameters, Method of undetermined coefficients.

Unit 5: Partial differential equations of the first order. Lagrange's linear equation. Charpit's general method of solution. Homogeneous and non-homogeneous linear partial differential equations with constant coefficients. Equations reducible to equations with constant coefficients.

Reference Books :

1. R.S. Senger, Ordinary Differential Equations with Integration, Prayal Publ. 2000.
2. D.A. Murray, Introductory Course in Differential Equations, Orient Longman (India), 1967.
3. E.A. Codrington, An Introduction to Ordinary Differential Equations, Prentice Hall of India, 1961.

Paper – III: Numerical Analysis and Vector Calculus

Teaching : 3 Hours per Week

Duration of Examination : 3 Hours

Max. Marks:

40 (Science)

54 (Arts)

Note: (i) This paper is divided into FIVE Units. TWO questions will be set from each Unit. Candidates are required to attempt FIVE questions in all taking ONE question from each Unit. All questions carry equal marks.

(ii) Non-Programmable Scientific Calculators are allowed.

Unit 1: Differences. Relation between differences and derivatives. Differences of a polynomial. Newton's formulae for forward and backward interpolation. Divided differences. Newton's divided difference, Lagrange's interpolation formula.

Unit 2: Central differences. Gauss's, Stirling's and Bessel's interpolation formulae. Numerical Differentiation. Derivatives from interpolation formulae. Numerical integration, Derivations of general quadrature formulas, Trapezoidal rule. Simpson's one-third, Simpson's three-eighth and Gauss's quadrature formulae.

Unit 3: Relation between the roots and coefficients of general polynomial equation in one variable, transformation of equations, Descartes's rule of signs, solution of cubic equations by Cardon's method, biquadratic equations by Ferrari's method. Numerical solution of Algebraic and Transcendental equations, Bisection method, Secant method, Regula-Falsi method, Iteration method, Newton- Raphson Method (derivation of formulae and rate of convergence only).

Unit 4: Gauss elimination and Iterative methods (Jacobi and Gauss Seidal) for solving system of linear algebraic equations. Partial Pivoting method, ill conditioned systems, Numerical solutions of ordinary differential equations of first order with initial condition using Picard's, Euler and modified Euler's method.

Raj / Jay

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15. Garment Production & Export Management

B.A. Part-II 2021

B.A./B.Com.– Maximum Marks 40

Hrs.3

B.Sc. Maximum Marks 50

THEORY PAPER – 1

Fashion and Apparel Design

OBJECTIVES :-

1. To Develop Sensitivity & Understanding towards Historical World Costumes.
2. To Focus on Design Elements & Principles and their Details on Garments.
3. To Create Awareness About the Techniques of Pattern Making & Principle of Fittings.

SECTION –A

TRADITIONAL COSTUMES

1. Study of traditional costumes of various regions of India.
2. History of costumes of Indian civilization.
3. Brief knowledge of world costumes ; French , German, Greek, European

SECTION –B

TECHNIQUES IN PATTERN MAKING

4. Eight head theory – principles and advantages.
5. Pattern making techniques- drafting, draping, flat pattern.
6. Colour and colour schemes, psychological effects of colour on clothes.
7. Fitting – principles of fitting, factors to be considered while fitting, common fitting problems, remedying fitting defects of bodice, sleeves, and skirts.


SECTION – C

DESIGN

8. Classification of design – structural and decorative
9. Elements and principles of design.
10. Layout of design of fabric in cutting - floral , checks, plaids, lines.

References :

1. Erwin, M. D., Kinchen, L.A. & Peters, A. (1979). Clothing for moderns. Macmillan publishing new York.
2. Jo, K. M. (1985). Clothing construction I&II. Prentice Hall.
3. Mathews, M. (1974). Practical clothing construction part I & II. Chennai, Cosmic press.
4. Doogaji, & Deshpandey, R. (1988). Basic process and clothing construction. Raaj Prakashan.


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THEORY PAPER – II**ELEMENTS OF MARKETING AND FINANCE**

B.A./B.Com.-Maximum Marks 40

Hrs. – 3

B.Sc. – Maximum Marks 50

OBJECTIVES :

1. To create awareness about the procedures to select, proceed & start the Small Scale Industry.
2. To guide the process of product development according to the market needs.
3. To become familiar with the methods of payment in foreign trades & about types or bills.

SECTION A

1. Market structure- Types of market, market survey, elements of cost.
2. History of readymade garment industry, Problem and prospects in global market
3. Branded versus non -branded market.
4. Types of garments exported.

SECTION B


5. Elementary knowledge of working capital factors affecting working capital, operating cycle.
6. Sources of finance.
7. Letter of credit
8. Methods of payment in foreign trade
9. Various typed of bills.
10. Insurance

SECTION C**Brief study of ;**

11. ECGC (export credit and guarantee corporation)
12. EIC (export inspection council)
13. IIP (Indian institute of packaging)
14. ICA (Indian of arbitration)

References :

1. Srivastav, & Aggarwal. (). Vipdan prabandh.
2. Mamoria, C.B., Joshi, R. L. & Mulla, N.I. (2003). Principles & practice of marketing in india. Kitab Mahal distributors.
3. Satya narayan; Sales management.
4. Daver R.S. (2009). Salesmanship and Publicity. Vikas publishing house Pvt Limited.



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PRACTICAL- 1
APPAREL DESIGNING

B.A/B.Com.–Maxmium Marks 60

Hrs.- 4

B.Sc. – Maxmium Marks 25

OBJECTIVES :

To familiarize with basics of color

To develop expertise in drawing croquis and draping dresses on them.

Contents:

1. Colour wheel and colour scheme.
2. Introduction to eight head theory and stick figure 9.5", 10.5".
3. Developing an adult croquis from block figure.
4. Draping of garments on croquis (at least 8 sheets) using different colours schemes and occasions.
5. Preparation of a portfolio.

Examination Scheme :

B.A./B.COM:-Max Marks:-60

B.SC:-Max Marks:-25

1. Major Problems-30

1. Major Problem:-10

2. Minor Problems:-20

2. Minor Problems:-10

Internal:-10

Internal:-5

PRACTICAL – II**CLOTHING CONSTRUCTION**

B.A./B.Com.–Maxmium Marks 60

Hrs- 4


B.Sc. – Maxmium Marks - 25

OBJECTIVES :

1. To be able to make basic drafts of bodice, sleeve and collar.
2. To learn the knowhow of stitching and all basic processes and ornamentation techniques.

Contents :

1. Pattern making
 1. Child basic block and sleeve block.
 2. Sleeve variations; slash and spread method-puff, bell, legomutton, bishops sleeves.
 3. Sleeve bodice combination; Magyar, raglan, dolman sleeves.
 4. Different types of collars.
 5. Different types of yokes.


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