

## ARTS AND MODEL DRAWING

### List of Practicals

#### Paper-I

1. Designing: Repeat Patterns (Poster Colours)
  - a. Tile Design: Straight lines, curved lines and combination of both
  - b. Border Design: Straight lines, curved lines and combination of both
  - c. Textile Design: Straight lines, curved lines and combination of both
  
2. Printing Techniques
  - a. Stenciling
  - b. Spray work
  - c. Printing with vegetables, natural objects e.g. leaves, flowers etc.

#### Paper-II

- Still life (pencil, crayons, pastels, water colours)
- a. Things of daily use
  - b. Fruits and vegetables
  - c. Nature drawing, flowers, leaves and etc.

#### Paper-III

- Posters on social issues/products/services (poster colours)
- Figure composition (pencil, water colour, poster colour)
- Landscape (pencil, water colours/poster colours/crayons/pastels)

#### Paper-IV

- Exhibition of two years work:  
Designs at least 6 – 2 from each category  
Printing at least 6 – 2 from each category  
Still life 2  
Posters 2  
Figure composition 2  
Landscape 2

## CLOTHING AND TEXTILE

### List of Practicals

Year Work:

1. Drafting and construction of 'Shalwar'
2. Seam and seam finishes
  - i. Plain seam
  - ii. Flat fell seam
  - iii. Welt seam
  - iv. French seam
- Seam Finishes**
  - i. Over casting
  - ii. Pinking
  - iii. Pinked and stitched edges
  - iv. Turned and stitched edges
3. Drafting individual bodice block, taking accurate measurements and using correct drafting procedure
4. Drafting and construction of 'Qameez'
5. Laundry and stain removal
6. Types of Weaves
7. Common mending method

## FOOD AND NUTRITION

### List of Practicals

ناشتہ بنانا، روٹی پکانا، حلوه پوری، سبزیوں کی بھجیا بنانا، انڈے بنانا، سلاد تیار کرنا، سادہ کباب بنانا، گوشت بنانا، دالیں پکانا، قیمہ بنانا، سادے چاول، سبزیاں ابالنا، پلاؤ بنانا، پراٹھا پکانا، کچوری تیار کرنا، پسندے پکانا، کھچڑی پکانا، کوفتے بنانا، شامی کباب بنانا، آم کی چٹنی، ٹماٹر کی چٹنی، رائتہ۔  
میٹھے کھانے: فیرنی، کسٹرڈ، سوجی کا حلوه، انڈے کا حلوه، شیر خرما، زردہ، گاجر کا حلوه، سویوں کا زردہ، کیک اور بسکٹ۔

## HEALTH AND PHYSICAL EDUCATION

### List of Practicals

1. Preparation of Practical Note Book:
  - a. Each student will be required to prepare a practical note book, which will include Educational Gymnastics, Head Stand and Forward Roll and playfields of those games, which have been included in theory.
  - b. Students will be required to identify five health problems in school, home or community and suggest in writing practicable and economical solutions, this shall be presented in the practical note book. Students will also be asked oral questions about these problems.
2. Presentation of Sequences:

Each student will be required to offer two sequences as denoted in his practical note book.
3. Game and Equipment:

Oral questions on the specifications of equipment of games and specifications and maintenance of prescribed playgrounds.
4. Athletics:

Proficiency in one of the prescribed games or athletic events.
5. Evaluation of personal cleanliness
6. Oral questions on ill effects of narcotics
7. Preparation of Practical Note Book:

Each student will be required to prepare a practical note book, which will include sketches of playfields of prescribed game.
8. Presentation of Educational gymnastics Lesson:

Each student will be required to Hand Stand and Backward Roll in his practical note book.
9. Equipment – Sports:

Oral questions on posture and demonstration of two remedial exercises of the prescribed postural defects.
10. Athletics and Games:

Proficiency in one of the prescribed games or athletic events.
11. Oral questions on community health, food adulteration, food contamination and drinks.
12. Oral questions on the organization of recreational activities.

# MOTOR WINDING

## List of Practicals

- 1. Safety**  
Introduction to workshop tool and safety precautions to be observed in electric shock and treatment against electric shock.
- 2. Basic Mechanical Processes**  
Thread Counting  
Basic Hand Tools  
Cutting Tools  
Safety Rules  
Bench Work  
Carpentry Tools  
Soldering Practice  
Measuring  
Off Hand Grinding
- 3. Electrical Measuring**
- 4. Basic Electrical Circuit**
- 5. AC Winding**  
Fan Winding  
Single-phase motor (Direct on line starting)
- 6. Geometrical & Technical Drawing**  
Draw basic lines and alphabet of drawing lines.  
Draw different types of angles, triangles, quadrilateral and polygons  
Draw elements of circle  
Sketch geometric shapes and models  
Draw Front, Side and Top views of simple wooden model  
Draw simple Isometric and Oblique Drawing of simple models  
Draw the different symbols relating to electrical motor winding field.
- 7. Removing of old winding, noting the gauge of wire used in primary and secondary winding, number of turns of both winding/looping.**
- 8. DC Winding**  
Identifying and using of DC motor.
- 9. Servicing of Electric Motor**
- 10. Motor Protection**

# COMPUTER HARDWARE

## List of Practicals

1. Draw basic lines and alphabet of drawing lines
2. Draw different types of angles, triangles, quadrilateral and polygons
3. Draw elements of circle
4. Sketch geometric shapes and models
5. Draw Front, Side and Top vies of simple wooden model
6. Draw simple Isometric and Oblique Drawings of simple models
7. Draw the different symbols relating to concerned field
8. Identify the Electronics Component and Color Code
9. Connection of the Resister in series and parallel
10. Connection of the capacitor in series and parallel
11. Connection of the inductor in series and parallel
12. Use of Hand tools
13. Use of Digital meter
14. Use of Analog meter
15. Measuring the primary and secondary voltage of Transformers
16. Testing of Diode with ohm meter
17. Half Wave Rectifire
18. Full Wave Rectifire
19. Bridge Rectifire
20. Regulated Power Supply
21. Use of I.C
22. Checking of NPN and PNP transistor with meter
23. Logic gates
24. AND gate
25. NAND gate
26. OR gate
27. NOR gate
28. Inverter
29. Exclusive OR gate
30. Exclusive NOR gate
31. Measurement of the Switch Mod Supply Voltage
32. Power supply Installation in CPU
33. Checking of Monitor Controls
34. Checking of CRT
35. Keyboard function
36. Mouse function
37. Scanner function
38. Display of RAM
39. Configure The Mother Board Slots
40. Display of Computer Parts
41. Dot matrix printer installation with driver
42. Inkjet printer installation with driver
43. Laser jet printer installation with driver
44. Installation of Floppy Disk Drive
45. Installation of CD-drive
46. Installation of CD-Writer
47. Installation of Mother Board
48. Data Bus and its Connections
49. Installation of Ram
50. Processor installation
51. Processor Fan installation
52. View of cards
53. Auto Configuration and Defaults
54. Bios Setup Configuration
55. Display card operation and its installation
56. Sound card operation and its installation
57. Multimedia Checking
58. Fax modem operation and its installation
59. Network interface card operation and installation
60. TV tuner card operation & installation
61. Computer assembling
62. Computer dissembling
63. Prepare boot able/Startup Disk
64. Transfer booting system
65. Power on self test
66. F disk
67. Disk Defragmentation
68. Security Pass-ward setting
69. Removal of Security Pass-ward
70. Disk Formatting
71. DOS (commands)
72. Windows Installation
73. Windows (commands)
74. Installation and prerequisites of computer application package
75. Word commands and shortcut keys
76. Excel commands and shortcut keys
77. Power Point commands and shortcut keys

## **DRESS MAKING AND FASHION DESIGNING**

### List of Practicals

1. Introduction
  - 1.1 Tools in electronic machine, adjustment, oiling of parts, maintenance & operate
2. Sewing machine
  - 2.1 Types, care & handling, cleaning & oiling, faults finding
3. Colour & design
  - 3.1 Selection of colours, combination of colours, identification colours
4. Draft and cut under wares indifferent size
5. Draft and cut out pattern of bib and feeder
6. Draft and cut pattern of simple and churidar pajamas in different designs (Thaila cut and square cut)
7. Draft and cut pattern of yoke frock in standard sizes
8. Ladies Shalwar & Kameez
9. Draft and cut pattern of romper
10. Draft and cut pattern of apron in different designs
11. Two pieces of frock in different sizes and styles
12. Draft and cut pattern of shallwar (ladies & gents)
13. Ladies kameez different sizes and style
14. Ladies blouse
15. Gents bush-shirts full and half sleeves
16. Gents shirts of different sizes
17. Gents kurtas
18. Ladies slips of different styles
19. Kemi naiker and paints
20. Children night suit
21. Coatee of different style and sizes

List of items required for Dress Making and Fashion Designing Practicals:

1. Brown Sheets - 4
2. Pencils
3. Scales
4. Scissors
5. Cloth
6. Thread
7. Needles (For hand Stitching and Machine Stitching)
8. Water Color
9. Brushes

# ELECTRICAL WIRING

## List of Practicals

- 1. Geometrical & Technical Drawing**
  1. Draw basic lines and alphabet of drawing lines
  2. Draw different types of angles, triangles, quadrilateral and polygons
  3. Draw elements of circle
  4. Sketch geometric shapes and models
  5. Draw Front, side and Top views of simple wooden model
  6. Draw simple Isometric and Oblique Drawings of simple models
  7. Draw the different symbols relating to electrical wiring field
- 2. Basic Requirements for Electrical work**
  1. To do work according to general workshop rules and regulations
  2. To do work according to drawing and sketches
  3. Listing of tools according to jobs
  4. Listing of correct sequence of operation for the job
  5. Working to safety regulations
  6. Working to I.E.E. regulations and general electricity rules
  7. Elementary first aid including artificial respiration
- 3. Cable joints**
  1. Identification and use of common hand tools
  2. Care of tools and equipments
  3. Identification of cables and wires w.r.t. conductors and insulation
  4. Trimming of cables (using electrician knife/insulation remover)
  5. Simple straight joint
  6. Married joint
  7. T-joint
  8. Soldering of joint
- 4. Basic Electric Circuit (Loose wiring)**
  1. Identification of electrical symbols
  2. To control one lamp with one switch
  3. To control one lamp and socket
  4. To control three pin socket with one switch
  5. Preparation of series test board
  6. To control three lamps with three switches in parallel
  7. To control a bell with one push button
  8. To control a bell and lamp in series (bell indicator circuit)
  9. Fluorescent tube light connection (Test with series board)
  10. Two-way switch circuit (stair circuit)
  11. To control two lamps in series and two lamp in parallel by two-way switch
  12. To control fan with regulator/dimmer
- 5. Identification of measuring Instruments**
  1. Identification of am-meter and its application
  2. Identification of volt-meter and its application
  3. Identification and using of tong tester
  4. Identification of ohm-meter and its application

5. Identification and use of watt-meter
6. Identification and connection of energy meter

### **Domestic Installations**

Batten & PVC pipe wiring

1. Kitchen installation
2. Bed room installation
3. Drawing room installation
4. Stair case installation (using two way switch)
5. Hall installation
6. Tumbler-bell installation
7. Indicator bell installation
8. Installation of two fluorescent tube in series using single chock
9. K.W.H meter and main switch + fuse installation
10. Wiring test methods
  - Leakage or Insulation Test
  - Polarity Test
  - Continuity Test

## **WELDING (ARC & GAS)**

### List of Practicals

#### **Geometrical & Technical Drawing**

1. Draw basic lines and alphabet of drawing lines
2. Draw different types of angles, triangles, quadrilateral and polygons
3. Draw elements of circle
4. Sketch geometric shapes and models
5. Draw Front, Side and Top views of simple wooden model
6. Draw simple Isometric and Oblique Drawings of simple models
7. Draw the different symbols relating to welding field

#### **General Workshop Practice**

1. Identification and use of common tools their storage care and handling
2. Filing Practice by using various types of lines on different surfaces
3. Marking practice by using different marking methods
4. Metal cutting practice with chisel and hand hacksaw
5. Related technical Drawing (Sketching and Reading)

#### **Oxy-Acetylene Welding Practice**

1. Setting up of oxy-acetylene gas welding equipment and its operation
2. Flame making practice
3. Welding pool-handling practice
4. Common fusion practice on thin mild steel sheets
5. Common fusion practice on thick mild steel plate
6. Fusion practice by using filler rod
7. Straight welding bead making practice in flat position
8. Square edge-welding practice without gap in flat position
9. Fillet or T-Weld practice on MS sheet in flat position
10. Overlap weld practice on M.S Sheet in flat position
11. Corner weld practice on M.S sheet without filler rod in flat position
12. Corner weld practice on M.S sheet with filler rod in flat position
13. Open Butt weld practice on M.S sheet in flat position
14. Setting of Gas cutting equipment practice
15. Gas cutting practice on Mild steel plate
16. Brazing practice on different metal pieces

#### **Electric Arc Welding Exercises**

- 4.1 Setting up of Arc Welding equipment and its operation
- 4.2 Arc Striking practice
- 4.3 Welding electrode manipulation practice
- 4.4 Straight bead running practice on M.S plate in flat position
- 4.5 Padding practice on M.S Plate in flat position
- 4.6 Bead strops and restart practice
- 4.7 Tack welding practice on M.S plat of fillet, lap, corner and butt-welding joint in flat position
- 4.8 Fillet weld practice on M.S plate in flat position

- 4.9 Overlap weld practice on M.S plate in flat position
- 4.10 Sq. Edge butt weld practice without gap in flat position
- 4.11 Corner weld practice on mild steel plate without gap in flat position
- 4.12 Corner weld practice with gap in flat position
- 4.13 Open butt weld practice on mild steel plate in flat position
- 4.14 Multi layer fillet weld practice on Mild steel plate in flat position
- 4.15 Weaving bead practice on M.S plate in flat position
- 4.16 Single-V butt weld practice on mild steel plate in flat position
- 4.17 Simple project making practice

**Oxy-Acetylene Cutting Practice**

- 5.1 Setting of gas cutting equipment and torch
- 5.2 Flame making for gas cutting
- 5.3 Cutting practice on various shapes and size on; metal plates

# WOOD WORKING AND FURNITURE MAKING

## List of Practicals

### SKILL REQUIREMENT

#### 1. **Technical Drawing**

1. Draw basic lines and alphabet of drawing lines
2. Draw different types of angles, triangles, quadrilateral and polygons
3. Draw elements of circle
4. Sketch geometric shapes and models
5. Draw Front, Side and Top views of simple wooden model
6. Draw simple Isometric and Oblique Drawings of simple models
7. Draw the different symbols relating to concerned field
8. Prepare a simple picture frame
9. Prepare a switch board
10. Prepare a paper tray
11. Prepare a waste paper basket
12. Book Shelf
13. Books ends
14. Center Table
15. Stool
16. Folding stool
17. Towel Stand

#### 2. **Basic Training:**

Proper working:

Identifying and using of common measuring tools

#### 3. **Identifying and using of marking tools**

#### 4. **Sawing Practice:**

1. Sawing with cross cut saw
2. Sawing with Rip saw
3. Sharpening and setting of saw teeth

#### 5. **Planning Practice**

1. Assembling and dismantling of plane
2. Sharpening of iron blade

#### 6. **Joints of Wood**

Dado Joint	Cross Lap joint	Martise and tenon joint
Dovetail half joint (TEE)		Half Tee joint
Bredle Joint	Butt Joint	Miter joint
Rub joint	Dowel joint	Groore joint
Screw Dowel joint	Scarp joint	

#### 7. **Finishing of Center Table**

Sand papering

Surface colouring

Sprit Polishing

#### 8. **Painting of Towel Stand**

Sand papering

1st Coat of Enamel by brush

2nd coat of enamel by brush

Repairing and refinishing of house hold and school furniture