

11.1.0 VEHICLE BODY WORK

11.1.01 INTRODUCTION

This module unit is designed to give special attention to panel beating and body work to enable the trainee cover dents on vehicles and also perform body building for new or modified vehicles.

11.1.02 GENERAL OBJECTIVES

By the end of the module unit, the trainee should be able to:

- a) Understand the construction of vehicle body layouts
- b) Assess and repair vehicles body work
- c) Design and fabricate vehicle bodies
- d) Observe safety while working in a workshop and other work places

11.1.03 MODULE UNIT SUMMARY AND TIME ALLOCATION

VEHICLE BODY WORK

| Code | Sub-Module Unit | Content | Time Hrs | | |
|--------|------------------------|--|----------|-------|-------|
| | | | Theory | Pract | Total |
| 11.1.1 | Vehicle Body Structure | <ul style="list-style-type: none">• Types of vehicle body designs• Vehicle body units• Body defects• Maintenance and adjustments• Alignment and testing• Functional requirements• Window winding mechanism | 10 | 20 | 30 |
| 11.1.2 | Chassis Frame | <ul style="list-style-type: none">• Functions of chassis frame• Types of forces acting on chassis frame• Integral construction of | 14 | 14 | 28 |

| | | | | | |
|--------|----------------|--|----|----|----|
| | | <ul style="list-style-type: none"> • frames • Chassis misalignment • Chassis frame • maintenance • Safety | | | |
| 11.1.3 | Panel Beating | <ul style="list-style-type: none"> • Uses of panel beating tools and equipment • Panel beating techniques • Panel beating procedures • Valeting description • Vehicle body dents straightening • Chassis or body defects • Application of filler and sanding • Safety | 10 | 22 | 32 |
| 11.1.4 | Spray Painting | <ul style="list-style-type: none"> • Functions of spray painting • Types of paints and thinners • Paint constituents • Materials for surface preparation • Painting tools and equipment • Methods of surface preparation • Quality of control factors • Surface painting • Spray painting sequence • Finished painted work • Safety | 8 | 10 | 18 |
| 11.1.5 | Car | <ul style="list-style-type: none"> • Upholstery 'term' | 10 | 20 | 30 |

| | | | | | |
|-------------------|------------|---|-----------|-----------|------------|
| | Upholstery | <ul style="list-style-type: none"> • Tools used in upholstery • Types of adhesives • Properties of upholstery materials • Torn seat cover • Safety | | | |
| Total Time | | | 52 | 86 | 138 |

11.1.1 VEHICLE BODY STRUCTURE

Practice

11.1.1T0 Specific Objectives

By the end of the sub module unit, the trainee should be able to:

explain types of vehicle body designs

explain types of body units

explain types of body defects

a) explain maintenance and adjustment on vehicle bodies

b) explain alignment testing

c) procedure using equipment

d) explain functional requirements of vehicle body

e) explain the operation of window winding machines

15.1.1C Competence

The trainee should have the ability to:

i) identify types of vehicle body designs

ii) identify types of body units

iii) carry out maintenance on body units

iv) rectify body defects using body jack

v) adjust doors

vi) remove and replace door window winding machine

vi) remove and install windshield and rear window

vii) repair fibre glass bodies

ix) repair holes in fibre glass panels

x) diagnose repair defects

- of body misalignment
- xi) fit safety belt
- xii) observe safety precautions

- ii) laser beam
- iii) manual
- iv) computer bracket
- v) bracketless jigs
- vi) hydraulic body jacks

Content

- 11.1.1T1 Types of vehicle body designs
 - i) passenger car
 - ii) light commercial
 - iii) vehicle heavy
 - iv) commercial vehicle
- 11.1.1T2 Vehicle body units
 - i) bonnets and boots
 - ii) windows
 - iii) doors
 - iv) wings
 - v) frames
 - vi) bumpers and grills
 - vii) locks
- 11.1.1T3 Body defects
 - i) dents
 - ii) corrosion
 - iii) cracks
 - iv) colour fade
- 11.1.1T4 Maintenance and adjustments
 - i) dents correction
 - ii) alignment
 - iii) correction/treatment
 - iv) cracks sealing
 - v) painting
 - vi) adjustments
- 11.1.1T5 Alignment and testing testing procedures
 - i) body measuring devices

- 11.1.1T6 Functional requirements
 - i) Accommodation for the driver, passenger and cargo
 - ii) Support mountings
- 11.1.1T6 Window winding mechanism
 - Electric type
 - Manual type

Practice

- 11.1.1P0 *Specific Objectives*
By the end of the sub module unit, the trainee should be able to:
identify types of vehicle body designs
 - a) identify types of body units
 - b) carry out maintenance on vehicle body units
 - c) rectify body defects using hydraulic body jack
 - d) adjust doors
 - e) remove and replace door window winding machine

- f) remove and install windshield and rear window
 - g) repair fibre glass bodies
 - h) repair holes in fibre glass panels
 - i) diagnose effects of body misalignment
 - j) fit the vehicle with safety belts
 - k) observe safety precautions when repairing fibre glass bodies
 - l) oiling and adjusting
 - m) moving parts
- 11.1.1P4 Body defects rectification using body jack
- i) Repair of dents
 - ii) corrosion
 - iii) cracks
 - iv) Hydraulic body jack
 - v) body jack attachments
 - vi) operation of the body jack
 - vii) use of body jack
- 11.1.1P5 Door adjustment
- hinges
 - striker
 - locks
- 11.1.1P1 Content
Types of vehicle body designs
- Light Goods Vehicle (LGV)
 - Heavy Goods Vehicle (HGV)
 - passenger cars
- 11.1.1P2 Types of body units
- i) doors
 - ii) wings
 - iii) windows
 - iv) bonnet/boots
 - v) bumpers/grills
 - vi) frames
 - vii) locks
- 11.1.1P3 Maintenance of body units
- i) handles
 - ii) hinges
 - iii) locks
 - iv) strikers
- 11.1.1P6 Service windshield and rear window installation and servicing
- i) short method
 - ii) extended method
 - iii) adhesive material
 - iv) heated knife
 - v) cold knife
 - vi) stereo music wire
 - vii) wood handle
- 11.1.1P7 Door window winding mechanism adjustment
- i) mechanical type
 - ii) electrical types
 - iii) circuit
 - iv) motors
 - v) switch
- 11.1.1P8 Fibre glass bodies repair steps

- | | |
|--|--|
| <ul style="list-style-type: none"> i) fibre glass ii) polyester resin iii) polyester filler iv) catalyst v) fibre glass cloth vi) fibre glass bonding strip vii) epoxy resin | <ul style="list-style-type: none"> - fibre glass - polyester resin and filler - catalyst - fibre glass bonder/chopped fibres - epoxy resin - fibre glass moulding strip - file - putty like material - metal screws - thinner - ventilated work area - water container - belt sander with vacuum - disposable shop coat - tools |
| <p>11.1.1P9 Fibre glass panels</p> <ul style="list-style-type: none"> i) grind or file edge of hole ii) bevel surface edge of hole iii) apply saucer like depression on fibre glass cloth | |
| <p>11.1.1P10 Body misalignment effects diagnosing</p> <ul style="list-style-type: none"> i) door misalignment ii) hood and truck lid misalignment iii) suspension system misalignment iv) drive shaft misalignment | <p>11.1.2 CHASSIS FRAME</p> <p>Practice</p> |
| <p>11.1.1P11 Safety belt</p> <ul style="list-style-type: none"> - fit safety belts | <p>11.1.2T0 Specific Objectives</p> <p>By the end of the sub module unit, the trainee should be able to:</p> <ul style="list-style-type: none"> a) explain the function of chassis frame b) explain types of forces acting on chassis frame c) explain types of frame, sections and design d) explain the integral construction of frames |
| <p>11.1.1P12 Safety precautions</p> <ul style="list-style-type: none"> - personal safety - tools and equipment safety | |

Suggested Learning

Resources

- body jack
- vehicle body
- oil
- safety belt
- windshield
- rear windshield

e) observe safety precautions when handling chassis

trainee should be able to:

- a) examine chassis misalignments for distortion
- b) carry routine maintenance on chassis frames
- c) observe safety precautions when handling chassis frame

11.1.2C **Competence**

The trainee should have the ability to:

- i)examine chassis misalignment for distortion
- ii)carry out routine maintenance on chassis frame
- iii)practice safety

Content

11.1.2T1 Functions of chassis frame

11.1.2T2 Types of forces acting on chassis frame

- bending force
- horizontal force
- upward force

11.1.2T3 Types of frame sections

- channel section
- tubular section
- box section

11.1.2T4 Integral construction of frames

11.1.2T5 Safety personal safety tools and equipment safety

Practice

11.1.2P0 Specific Objectives
By the end of the sub module unit, the

Content

11.1.2P1 Chassis misalignment

11.1.2P2 Chassis frame maintenance

11.1.2P3 Safety

Suggested Learning

- Resources
- chassis frame
- welding plates
- welding equipment
- plumb line
- hand tools
- workshop manual
- charts/diagrams

11.1.3 **PANEL BEATING**

Practice

11.1.3T0 Specific Objectives

By the end of the sub module unit, the trainee should be able to:

- a) state the use of panel beating tools and equipment
 - b) explain panel beating techniques
 - c) explain the use of panel beating materials
 - d) explain the procedure for panel beating
 - e) explain the importance of vehicle valeting
 - f) observe safety precautions when panel beating
- 11.1.3C *Competence*
The trainee should have the ability to:
- i. identify panel beating tools
 - ii. straightening dents
 - iii. check chassis or body for defects
 - iv. apply filler and sand as required on body filler
 - v. practice safety when panel beating
- Content*
- 11.1.3T1 Uses of panel beating tools and equipment
- i) dollies
 - ii) spoons
 - iii) hammers
 - iv) files/body file holder
 - v) body jack
- 11.1.3T2 Panel beating techniques
- i) hammering technique
 - ii) shrinking method
 - iii) straightening method
- 11.1.3T3 Use of panel beating materials
- i) body filler
 - ii) filler hardener
 - iii) sand paper (wet and dry)
 - iv) spot putty
- 11.1.3T4 Panel beating procedures
- i) shrinking
 - ii) sanding
 - iii) filling
- 11.1.3T5 Valeting description
- i) washing
 - ii) waxing
 - iii) removal of corrosive
 - iv) residual
 - v) cleaning/vacuuminng
 - vi) soft/hard trim
 - vii) leather
- 11.1.3T6 Safety
- i) personal safety
 - ii) tools and equipment
 - iii) safety
- Practice**
- 11.1.3P0 *Specific Objectives*
By the end of the sub module unit, the

trainee should be able to:

- a) identify panel beating tools
- b) straighten dents on a vehicle body
- c) check chassis or body for defects
- d) apply filler and sand as required on body repair
- e) observe safety on panel beating

Content

- 11.1.3T1 Panel beating tools and equipment
- i) dollies
 - ii) spoons
 - iii) hammers
 - iv) files
 - v) body jack
 - vi) orbital sanders
- 11.1.3T1 Vehicle body dents straightening
- 11.1.3T2 Chassis or body defects
- distortion
 - cracks
 - rust
 - dents
- 11.1.3T3 Application of filler and sanding
- 11.1.3T4 Safety
- personal safety
 - tools and equipment
 - safety

Suggested Learning Resources

- dollies
- spoons
- hammers
- body files
- body file holder
- body jack
- sanders
- plumb line
- alignment jigs
- body filler
- filler hardener
- spatula
- scrapers
- sand paper
- emery cloth
- reference books

11.1.4 **SPRAY PAINTING**

Practice

- 11.1.4T0 Specific Objectives
- By the end of the sub module unit, the trainee should be able to:
- a) explain the function of spray painting
 - b) explain types of paints and thinners
 - c) explain paints constituents
 - d) explain materials for surface preparation
 - e) explain use of painting tools and equipment

- f) explain methods of surface preparation
- g) explain spray painting techniques
- h) observe safety when spray painting

- iv) fire resistance paints
- v) Thinners
- vi) turpentine/spirit
- vii) water
- viii) cellulose thinner
- ix) methylated spirit

11.1.4C *Competencies*

The trainee should have the ability to:

- a) select correct tools and equipment for surface preparation
- b) prepare surface for painting
- c) select correct tools and equipment for spray painting
- d) apply correct sequence when spraying
- e) examine finished painted work
- f) maintenance and care of tools and equipment
- g) observe safety when spray painting

11.1.4T3 Paint constituents

- i) pigments
- ii) binder
- iii) media
- iv) thinner
- v) driers

11.1.4T4 Materials for surface preparation

- i) sand paper
- ii) emery cloth
- iii) paint removers
- iv) fillers
- v) paraffin (not for lining)

11.1.4T5 Painting tools and equipment

- i) files
- ii) scrapers
- iii) spraying equipment
- iv) spray gun
- v) suction

11.1.4T6 Methods of surface preparation

- i) cleaning and washing/
- ii) dusting
- iii) filling/slopping
- iv) sanding
- v) scraping

11.1.4T7 Quality of control factors

Content

11.1.4T1 Functions of spray painting

- preservation
- decoration

11.1.4T2 Types of paints and thinners

- i) paints
- ii) oil paints
- iii) water paints

| | | | |
|----------|---|---|---|
| | <ul style="list-style-type: none"> i) cleanliness of surface ii) paints defects iii) painting techniques iv) paint types | <ul style="list-style-type: none"> i) emery cloth ii) sand papers iii) wire brushes iv) scraper/files | |
| 11.1.4T8 | Spray painting techniques | 11.1.4P2 | Surface painting <ul style="list-style-type: none"> i) filing off paints ii) scrapping old paint iii) masking |
| | <i>Practice</i> | 11.1.4P3 | Tools and equipment for spray painting <ul style="list-style-type: none"> i) files ii) scrapers iii) on sunction iv) spray paint equipment v) pressure and gravity vi) spray guns |
| 11.1.4P0 | Specific Objectives By the end of the sub module unit, the trainee should be able to: | 11.1.4P4 | Spray painting sequence <ul style="list-style-type: none"> i) priming ii) rubbing down and slopping iii) undercoating v) finish coating |
| | <ul style="list-style-type: none"> a) select correct tools and equipment for surface preparation b) prepare body surface for painting c) select correct tools and equipment for spray painting d) carry out spray painting correctly e) inspect finished painting work f)maintenance and care of tools and equipment g) observe safety precautions when spray painting | 11.1.4P5 | Finished painted work <ul style="list-style-type: none"> i) smoothness ii) even coating iii) cleanliness of finish iv) paint defects |
| | | 11.1.4P6 | Tools maintenance and care <ul style="list-style-type: none"> i) cleaning ii) storing iii) re-conditioning |
| | <i>Content</i> | 11.1.4P7 | Safety <ul style="list-style-type: none"> i) personal safety ii) tools and equipment safety |
| 11.1.4P1 | Tools and equipment for surface preparation | | |

| | | | |
|----------|---|----------|--|
| | Suggested Learning Resources | | The trainee should have the ability to: |
| | - wire brush | | a) use upholstery tools safely and correctly |
| | - emery cloth and sand papers | | b) select suitable tools for upholstery |
| | - masking tapes | | c) patch a car carpet patch a torn seat cover |
| | - scrapers | | |
| | - files | | |
| | - polish | | |
| | - colour paints | | |
| | - spot putty | | |
| | - primer colour | | |
| | - old newspaper | 11.1.5T1 | Content Upholstery 'term' upholstery/platforms padding and cushions covering materials |
| | - air compressors | | |
| | - spray gun | | |
| 11.1.5 | CAR UPHOLSTERY | 11.1.5T2 | Tools used in upholstery |
| | Practice | | i) webbing pliers |
| 11.1.5T0 | <i>Specific Objectives</i> | | ii) needles (assorted) |
| | By the end of the sub module unit, the trainee should be able to: | | iii) sewing machines |
| | a) explain the term upholstery | | iv) scissors/shears |
| | b) explain tools used in upholstery | | v) trestle/horses |
| | c) explain types of adhesives | | vi) pins (assorted) |
| | d) explain properties of upholstery materials | | vii) jute webbing stretcher |
| | e) observe safety when handling car upholstery | | viii) ripping chisel |
| | | 11.1.5T3 | Types of adhesives |
| | | | i) epoxy resin |
| | | | ii) contact adhesives |
| | | | iii) rubber latex/solution |
| | | | iv) PVC adhesives |
| | | 11.1.5T4 | Properties of upholstery materials |
| | | | non-static |
| | | | durable |
| | | | affordable |
| | | | maintain colour |
| | | | non-stretching |
| 11.1.5C | <i>Competence</i> | | |

- 11.1.5T5 Safety
- personal safety
 - tools and equipment
 - safety

Practice

- 11.1.5P *Specific Objectives*
By the end of the sub module unit, the trainee should be able to:
- a) use upholstery tools safely and correctly
 - b) select suitable fabrics for upholstery
 - c) patch a car carpet
 - d) patch a torn seat cover
 - e) practice safety precautions when handling car upholstery

Content

- 11.1.5P1 Upholstery tools
construct the frame
- i) apply stuffing
 - ii) apply padding
 - iii) fix top covering
 - iv) trimming
 - v) select suitable foam
- 11.1.5P2 Upholstery fabrics
- i) velour
 - ii) mohair
 - iii) homespun
 - iv) cretonne
 - v) tapestry

- vi) Repp, Bengaline
- vii) corduroy
- viii) ottoman
- ix) faille
- x) brocade
- xi) damask
- xii) frieze
- xiii) byin
- xiv) sateen

- 11.1.5P3 Car carpet
- a tear
 - edge repair

- 11.1.5P4 Torn seat cover
- i) cutting materials
 - ii) cover patch with adhesive
 - iii) push a patch on the tear

- 11.1.5P5 Safety
- personal safety
 - equipment safety

Suggested Learning Resources

- upholstery tools
- needles (assorted)
- webbing pliers
- sewing machines
- scissors/shears
- trestle/horses
- pins(assorted)
- jute webbing
- stretcher
- ripping chisel
- upholstery materials
- patching materials
- canvas
- carpet stud
- adhesive
- thin nosed pliers

- light hammer
- scissors

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CRAFT CERTIFICATE IN AUTOMOTIVE TECHNOLOGY

MODULE II

MODULE II

INTRODUCTION

The module is designed for all trainees who meet the minimum entry requirements for Craft Certificate in Automotive Technology course or its equivalent.

It is intended to impart to trainees knowledge skills and attitudes that will meet the needs of automotive industry for technician assistants who will diagnose, repair and service vehicle electrical and electronic systems, and vehicle engines.

GENERAL OBJECTIVES

By the end of the module, the trainee should:

- a) communicate effectively in matters of automotive technology
- b) apply information communication technology in vehicle fault diagnosis
- c) apply entrepreneurial skills in the trade
- d) apply quality control while providing services in the trade
- e) appreciate environment health and safety
- f) appreciate the automotive technology trade and its training progression path.

KEY COMPETENCIES

By the end of the module the trainee should be able to demonstrate the following competencies;

Ability to;

- a) Diagnose, repair and service vehicle electrical and electronic systems
- b) Diagnose, repair and service vehicle engines
- c) Cost jobs and tasks in the Automotive trade
- d) Use various computer packages

12.2.0 COMMUNICATION SKILLS

12.2.01 INTRODUCTION

This module unit is intended to equip the trainee with knowledge, skills and attitudes to enable him/her to perform duties, process information from a variety of sources and apply communication skills at the work place.

12.2.02 GENERAL OBJECTIVES

By the end of the module unit, the trainee should be able to:

- a) appreciate the importance of communication in the work place
- b) develop necessary skills for effective communication
- c) appreciate the use of different modes and forms of communication
- d) appreciate the role of information and communication technology in communication
- e) develop the necessary writing skills for various documents
- f) appreciate official etiquette, protocol and diplomacy at the work place
- g) appreciate emerging issues in communication

12.2.03 MODULE UNIT SUMMARY AND TIME ALLOCATION

COMMUNICATION SKILLS

| Code | Sub-Module Unit | Content | Time Hrs |
|--------|-------------------------------|--|----------|
| 12.2.1 | Introduction to Communication | <ul style="list-style-type: none">• Terms and concept used• Essentials to effective communication• Role of ICT in communication | 4 |
| 12.2.2 | Communication Process | <ul style="list-style-type: none">• Stages of communication process• Barriers to effective communication• Ways of overcoming barriers• Basic concepts of transmission and receipt of a message• Feedback mechanism | 2 |

| | | | |
|---------|--|--|----|
| | | <ul style="list-style-type: none"> • Ethical issues in communication | |
| 12.2.3 | Classification of Communication | <ul style="list-style-type: none"> • Types of communication • Use of various types of communication | 4 |
| 12.2.4 | Forms of Communication | <ul style="list-style-type: none"> • Forms of communication • Advantages and disadvantages of | 4 |
| 12.2.5 | Channels of Communication | <ul style="list-style-type: none"> • Communication channels • Advantages and disadvantages | 5 |
| 12.2.6 | Official Etiquette, Protocol and Diplomacy | <ul style="list-style-type: none"> • Meaning of etiquette, protocol and diplomacy | 5 |
| 12.2.7 | Writing Skills | <ul style="list-style-type: none"> • Punctuation marks • Courtesy in writing • Paragraph development • Essay writing • Functional writing | 10 |
| 12.2.8 | Summary | <ul style="list-style-type: none"> • Importance of summary writing • Essential steps in summary writing | 4 |
| 12.2.9 | Report Writing Skills | <ul style="list-style-type: none"> • Definition of a report • Role of reports • Formats of reports • Preparation for report writing • Report writing , editing and dissemination • Referencing styles • Preparation of power point slides | 8 |
| 12.2.10 | Conducting Meetings and Minute Writing | <ul style="list-style-type: none"> • Definition of terms • Role of meetings and minutes • Types of meetings • Planning and conducting meetings • Minute writing • Challenges in conducting meetings | 8 |
| 12.2.11 | Interviews | <ul style="list-style-type: none"> • Meaning of the term interview | 4 |

| | | | |
|-------------------|------------------------------------|---|-----------|
| | | <ul style="list-style-type: none"> • Purpose of interviews • Types of interviews • Preparation for an interview • Interviewing skills | |
| 12.2.12 | Public Relations and Customer Care | <ul style="list-style-type: none"> • Definition of term • Types of customers • Role of public relations and customer care • Interpersonal and public relation skills • Quality management • Customer care skills • Challenges faces in public relation and customer care | 4 |
| 12.2.13 | Emerging Issues In Communication | <ul style="list-style-type: none"> • Emerging trends and issues in communication • Challenges posed by emerging issues and trends • Ways of coping with emerging issues and trends | 4 |
| Total time | | | 66 |

12.2.1 INTRODUCTION TO COMMUNICATION

Practice

Theory

- 12.2.1T0 Specific Objectives
By the end of the sub-module unit, the trainee should be able to:
- a) define terms and
 - b) concepts used in communication
 - c) explain the purpose of communication
 - d) explain the essential steps to effective communication
 - e) explain the role of Information and Communication Technology (I.C.T.) in communication

- 12.2.1C *Competence*
The trainee should have the ability to:
- i) use the terms and concepts in communication effectively in
 - ii) different situations

Content

- 12.2.1T1 Terms and concepts used in communication
- 12.2.1T2 Purpose of communication
- 12.2.1T3 Essentials to effective communication
- 12.2.1T4 Role of I.C.T. in communication

12.2.1P0 *Specific Objectives*

By the end of the sub-module unit, the trainee should be able to:

- a) use terms and concepts in communication effectively
- b) apply essentials of communication in a given situation

Content

- 12.2.1P1 Effective use of terms and concepts in communication
- 12.2.1P2 Application of essentials of communication

12.2.2 COMMUNICATION PROCESS

Theory

- 12.2.2T0 Specific Objectives
By the end of the sub-module unit, the trainee should be able to:
- a) describe the stages of the communication process
 - b) identify barriers to effective communication
 - c) explain ways of overcoming barriers to effective communication

- d) identify basic concepts of transmission and receipt of a message
- e) describe feedback mechanism
- f) explain ethical issues in communication

12.2.2C *Competence*

The trainee should have the ability to:

- i) apply communication process in a given situation
- ii) overcome barriers to effective communication

Content

- 12.2.2T1 Stages of communication process
- 12.2.2T2 Barriers to effective communication
 - i) Age difference
 - ii) Social economic factors
 - iii) Language
 - iv) Competition for attention
 - v) Noise
 - vi) Environment
 - vii) Attitude of sender/receiver and others
- 12.2.2T3 Ways of overcoming barriers to effective communication
- 12.2.2T4 Basic concepts of transmission and receipt of a message

- i) Encoding of message by the sender
- ii) Transmission of message through a channel
- iii) Decoding a message by receiver
- iv) Decoding of feedback by the sender

12.2.2T5 Feedback mechanism

12.2.2T6 Ethical issues in communication

Practice

12.2.2P0 *Specific Objectives*

By the end of the sub-module unit, the trainee should be able to:

- a) apply the communication process in a given situation
- b) encode and decode messages
- c) demonstrate ethical issues in communication

Content

- 12.2.2P1 Application of the process of communication
- 12.2.2P2 Encoding and decoding messages
- 12.2.2P3 Demonstration of ethical issues in communication

12.2.3 **CLASSIFICATION OF COMMUNICATION**

the various types of communication in given situations

Theory

Content

- 12.2.3T0 **Specific Objectives**
By the end of the sub-module unit, the trainee should be able to:
- a) explain the various types of communication
 - b) explain the use of various types of communication

12.2.3P1 Application of various types of communication

12.2.4 **FORMS OF COMMUNICATION**

Theory

- 12.2.3C *Competence*
The trainee should have the ability to apply the various types of communication in a given situation

- 12.2.4T0 *Specific Objectives*
By the end of the sub-module unit, the trainee should be able to:
- a) explain the various forms of communication
 - b) discuss the advantages and disadvantages of each form of communication

Content

- 12.2.3T1 Types of communication
- i) Formal
 - ii) Informal
 - iii) Internal
 - iv) External
 - v) Inter personal
 - vi) Intra-personal

- 12.2.4C *Competence*
The trainee should have the ability to use various forms of communication effectively

- 12.2.3T2 Use of various types of communication

Content

- 12.2.4T1 Forms of communication
- i) Oral
 - ii) Written
 - iii) Visual
 - iv) Audio-visual

Practice

- 12.2.3P0 *Specific Objective*
By the end of the sub-module unit, the trainee should be able to apply

| | | | |
|----------|--|----------|---|
| 12.2.4T2 | Advantages and disadvantages of each form of communication | | v) Diagonal |
| | <i>Practice</i> | 12.2.5T2 | Advantages and disadvantages of each channel of communication |
| 12.2.4P0 | Specific Objective By the end of the sub-module unit, the trainee should be able to use the various forms of communication. | | <i>Practice</i> |
| | Content | 12.2.5P0 | <i>Specific Objective</i> By the end of the sub-module, the trainee should be able to role play the use of different channels of communication |
| 12.2.4P1 | Using various forms of communication | | Content |
| 12.2.5 | CHANNELS OF COMMUNICATION | 12.2.5P1 | Role play of use of different channels of communication |
| | Theory | | Content |
| 12.2.5T0 | <i>Specific Objectives</i> By the end of the sub-module unit, the trainee should be able to: a) outline the various channels of communication in an organization b) discuss the advantages and disadvantages of each channel of communication | 12.2.5C | <i>Competence</i> The trainee should have the ability to apply various channels of communication in a given situation |
| | Content | 12.2.6 | OFFICIAL ETIQUETTE, PROTOCOL AND DIPLOMACY |
| 12.2.5T1 | Channels of communication i) Vertical ii) Upwards iii) Downwards iv) Lateral/horizontal | | Theory |
| | | 12.2.6T0 | Specific Objectives By the end of the sub-module unit, the trainee should be able to: |

- a) explain the meaning of etiquette, protocol and diplomacy
- b) explain the importance of official etiquette
- c) explain the accepted protocol and diplomacy

12.2.6C *Competence*

The trainee should have the ability to:

- i) Interact with others without offending
- ii) Observe protocol requirements
- iii) Exercise diplomacy in daily interactions
- iv) Adhere to official etiquette requirements

Content

12.2.6T1 Meaning of etiquette, protocol and diplomacy

12.2.6T2 Official etiquette

12.2.6T3 Accepted protocol and diplomacy

Practice

12.2.6P0 *Specific objective*

By the end of the sub-module unit, the trainee should be able to practice the accepted official etiquette

Content

12.2.6P1 Demonstration of accepted official etiquette

12.2.7 **WRITING SKILLS**

Theory

12.2.7T0 *Specific Objectives*

By the end of the sub-module unit, the trainee should be able to:

- a. determine how to use punctuation marks in a written document
- b. explain the importance of courtesy in writing
- c. develop well constructed paragraphs
- d. explain how to write different types of essays
- e. determine how to write different functional writing

12.2.7C *Competence*

The trainee should have the ability to:

- i) Punctuate correctly
- ii) Prepare business documents

Content

12.2.7T1 Punctuation marks

12.2.7T2 Courtesy in writing
Use of polite language
Choice of words
Right expressions

12.2.7T3 Paragraph development
Support details

12.2.7T4 Essay writing

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|----------|----------------------------|----------|----------------------------|
| | - Descriptive | 12.2.8 | SUMMARY |
| | - Explanatory | | Theory |
| | - Narrative | | |
| | - Argumentative | | |
| 12.2.7T5 | Functional writing | 12.2.8T0 | <i>Specific Objectives</i> |
| | i) Business letters | | By the end of the sub- |
| | ii) Memorandum | | module unit, the trainee |
| | iii) Notices | | should be able to: |
| | iv) Agenda | | a) explain the |
| | v) Minutes | | importance of |
| | vi) Advertisements | | summarizing |
| | vii) E-mail | | passages/informatio |
| | viii) Facsimile | | n |
| | messages | | b) determine the steps |
| | ix) Press release | | in note taking when |
| | | | summarizing |
| | | | passages, |
| | | | reports and |
| | | | conversations |
| | <i>Practice</i> | | |
| 12.2.7P0 | <i>Specific objectives</i> | 12.2.8C | <i>Competence</i> |
| | By the end of the sub- | | The trainee should have |
| | module unit, the trainee | | the ability to summarize |
| | should be able to: | | passages, reports and |
| | a) use correct | | conversations |
| | punctuation | | |
| | b) apply courtesy in | | |
| | writing | | |
| | c) write different types | | <i>Content</i> |
| | of essays | 12.2.8T1 | Importance of summary |
| | d) write different types | | writing |
| | of functional writing | 12.2.8T2 | Essential steps in |
| | | | summary writing |
| | | | |
| | <i>Content</i> | | <i>Practice</i> |
| 12.2.7P1 | Punctuating correctly | 12.2.8P0 | Specific Objective |
| 12.2.7P2 | Demonstrating courtesy | | By the end of the sub- |
| | in writing | | module unit, the trainee |
| 12.2.7P3 | Writing different types | | should be able to take |
| | of essays | | notes and summarize |
| 12.2.7P4 | Writing different | | passages, reports and |
| | functional writing | | conversations |

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| 12.2.8P1 Summarizing passages, reports and conversations | iv) Apply I.C.T. in report writing, editing and dissemination |
| 12.2.9 REPORT WRITING SKILLS | v) Present reports using power point presentations |
| Theory | vi) Select appropriate referencing styles in engineering |
| 12.2.9T0 <i>Specific Objectives</i> | |
| By the end of the sub-module unit, the trainee should be able to: | <i>Content</i> |
| a) define the term report | 12.2.9T1 Definition of a report |
| b) explain the role of reports in an organization | 12.2.9T2 Role of reports in an organization |
| c) name different types of reports | 12.2.9T3 Types of reports |
| d) explain the formats of reports | i) Oral ii) Written iii) Management reports |
| e) explain the steps to take in preparation for report writing in engineering | iv) Operations procedures |
| f) explain how to write, edit and disseminate reports | v) Production schedules |
| g) explain the referencing styles used in engineering reports | vi) Maintenance, breakdown and accident reports |
| h) prepare power point presentations | vii) Entrepreneurship and trade reports viii) Internal memos |
| 12.2.9C <i>Competence</i> | 12.2.9T4 Formats of reports |
| The trainee should have the ability to: | 12.2.9T5 Preparation for report writing |
| i) Prepare effective reports | - Audience analysis - Reading skills - Data collection - Data analysis |
| iii) Adapt reports to various audiences | 12.2.9T6 Report writing, editing and dissemination |
| | 12.2.9T7 Referencing styles |

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| 12.2.9T8 | Preparation of power point slides | minutes in an organization |
| | Practice | c) identify types of meetings |
| 12.2.9P0 | <i>Specific objectives</i> By the end of the sub-module unit, the trainee should be able to: | d) discuss how to plan and conduct meetings |
| | a) prepare different types of reports | e) highlight the challenges faced in the conduct of meetings and minute writing |
| | b) edit and disseminate reports | f) discuss the advantages and disadvantages of meetings |
| | c) present a report through power point slides | |

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| | <i>Content</i> | 12.2.10C | Competence |
| 12.2.9P1 | Preparation of different types of reports | | The trainee should have the ability to: |
| 12.2.9P2 | Editing and dissemination of reports | | i) Plan and conduct meetings |
| 12.2.9P3 | Presenting a report | | ii) Write minutes effectively |

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| 12.2.10 | CONDUCTING MEETINGS AND MINUTE WRITING | | <i>Content</i> |
| | Theory | 12.2.10T1 | Definition of the terms meetings and minutes |
| | | 12.2.10T2 | Role of meetings and minutes in an organization |
| 12.2.10T0 | Specific Objectives By the end of the sub-module unit, the trainee should be able to: | 12.2.10T3 | Types of meetings |
| | a) define the terms meetings and minutes | 12.2.10T4 | Planning and conducting meetings |
| | b) explain the role of meetings and | 12.2.10T5 | Challenges in conduct of meetings and minute writing |
| | | 12.2.10T6 | Advantages and disadvantages of meetings |

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| | <i>Practice</i> | | ii) Prepare for an interview as an interviewee |
| 12.2.10P0 | <i>Specific objective</i> By the end of the sub-module unit, the trainee should be able to write minutes correctly | | iii) Prepare for an interview as an interviewer |
| | <i>Content</i> | | |
| 12.2.10P1 | Writing minutes | 12.2.11T1 | Meaning of the term 'interview' |
| | | 12.2.11T2 | Purpose of an interviews in an organization |
| 12.2.11 | INTERVIEWS | 12.2.11T3 | Types of interviews |
| | Theory | 12.2.11T4 | Preparation for an interview - Dressing and grooming - Role of interviewer - Role of interviewee - Interview environment |
| 12.2.11T0 | <i>Specific Objectives</i> By the end of the sub-module unit, the trainee should be able to: | | |
| | a) explain the meaning of the term 'interview' | 12.2.11T5 | Interviewing skills -Briefing skills -Conducting the interview -Debriefing skills |
| | b) explain the purpose of interviews in an organization | | |
| | d) discuss the various types of interviews | | |
| | e) explain how to prepare for an interview | | |
| | f) explain the skills for interviewing | | |
| | | | <i>Practice</i> |
| 12.2.11C | <i>Competence</i> The trainee should have the ability to: | 12.2.11P0 | <i>Specific Objective</i> By the end of the sub-module unit, the trainee should be able to role play as an interviewer and as an interviewee |
| | i) Conduct interviews | | |
| | | | <i>Content</i> |
| | | 12.2.11P1 | Role playing the interviewer and interviewee |

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| 12.2.12 | PUBLIC RELATIONS AND CUSTOMER CARE | b) Interact with different types of people c) Care for customers appropriately |
| | Theory | |
| 12.2.12T0 | <i>Specific Objectives</i> By the end of the sub-module unit, the trainee should be able to: | <i>Content</i> 12.2.12T1 Definition of the terms public, customer and public relations 12.2.12T2 Types of customers 12.2.12T3 Role of public relations and customer care in an organization 12.2.12T4 Interpersonal and public relations skills 12.2.12T5 Quality management 12.2.12T6 Customer care skills 12.2.12T7 Challenges faced in public relations and customer care |
| | a) define the terms public, customer and public relations b) name different types of customers c) explain the role of public relations and customer care in an organization d) explain interpersonal and public relations skills e) define quality management f) explain the skills in customer care g) explain the challenges faced in public relations and customer care | |
| | | <i>Practice</i> |
| | | 12.2.12P0 Specific Objective By the end of the sub-module unit, the trainee should be able to apply public relation skills in dealing with the various people |
| | | <i>Content</i> |
| | | 12.2.12P1 Application of public relation skills |
| 12.2.12C | <i>Competence</i> The trainee should have the ability to: | |
| | a) Demonstrate proper public relations | |

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| 12.2.13 | EMERGING ISSUES IN COMMUNICATION | 12.2.13T2 | Challenges posed by emerging trends and issues |
| | Theory | 12.2.13T3 | Ways of coping with the emerging trends and issues |
| 12.2.13T0 | <i>Specific Objectives</i> By the end of the sub-module unit, the trainee should be able to: | | |
| | a) state emerging trends and issues in communication | | |
| | b) outline challenges posed by emerging issues | | |
| | c) explain ways of coping with emerging trends and issues in communication | | |
| 12.2.13C | <i>Competence</i> The trainee should have the ability to cope with emerging trends and issues | | |
| | <i>Content</i> | | |
| 12.2.13T1 | Emerging trends and issues in communication | | |
| | | | <i>Suggested Teaching/Learning Resources</i> |
| | | | - Boards |
| | | | - Charts |
| | | | - Language laboratory |
| | | | - Machines and equipment |
| | | | - Power point |
| | | | - Projectors |
| | | | - Audio tapes |
| | | | - Telephone/fax |
| | | | - E-mail |
| | | | - Internet |
| | | | - Lecturers and resource persons |
| | | | - Library |
| | | | - Newspapers/magazines/journal |