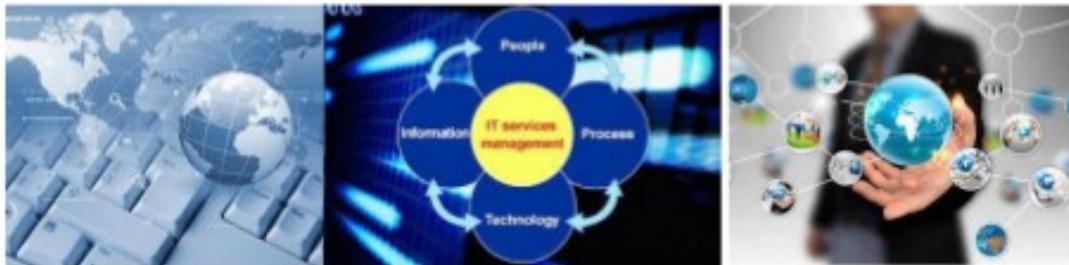


**National Skills Qualification Framework (NSQF)
Competency Based Curriculum
Level 1 (Class 9) to Level 4 (Class 12)
Information Technology (IT) / Information
Technology Enabled Services (ITeS)**

Job Role: IT Service Desk Attendant



PSS Central Institute of Vocational Education

(a constituent unit of NCERT, an autonomous organization under Ministry of Human Resource Development, Government of India)

Shyamala Hills, Bhopal, MP, India

CURRICULUM:

IT/ITeS (IT Service Desk Attendant) for NSQF Level 1 (Class 9) Level 4 (Class 12)

January, 2015

Publication no:

No of copies: 300

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Preface

Ministry of Human Resource Development, Government of India developed the National Skill Qualification Framework (NSQF) to introduce vocational courses from class 9 th onwards .The NSQF organizes qualifications according to a series of levels of knowledge and skills. These levels are defined in terms of learning outcomes i.e. the competencies (knowledge, skills and attitude) which the learners must possess regardless of whether they were acquired through formal, non-formal or informal education and training system. Qualifications are made up of occupational standards for specific areas of learning units or unit of competency. Units of competency are the specification of knowledge and skill and the application of that knowledge and skill to the standard of performance expected in the workplace. The unit of competency or National Occupation Standards comprising generic and technical competencies an employee should possess are laid down by the Sector Skill Council of the respective economic or social sector.

Competency is defined in terms of what a person is required to do (performance), under what conditions it is done (conditions) and how well it is to be done (standards). It can be broadly categorized into foundational, practical and reflexive competencies. Generic competencies are considered essential for a person to participate effectively in the workforce, whereas technical competencies are an individual's knowledge and expertise in the specific group task and its processes and its rules and regulations.

The competency based curriculum is broken down into coherent parts known as Units. Each unit is further broken down into knowledge and skills on the basis of which evidence is to be provided by the learner and the evaluation is to be done by the teacher or trainer.

PSSCIVE which is part of NCERT New Delhi is mandated by Government of India as a apex R&D Institute for Vocational Education. The institute has taken up development of Curriculum and course-ware for NSQF Level 1 (class 9) to Level 1 (class 12) to introduce vocational courses in Secondary and senior secondary schools in of the country.

Dr. R. B. Shivagunde
Joint Director and Head
PSSCIVE Bhopal

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INTRODUCTION

The National Skills Qualification Framework (NSQF) developed by the Ministry of Human Resource Development (MHRD), Government of India is a descriptive framework that provides a common reference for linking various qualifications. It is used for setting common principles and guidelines for a nationally recognized qualification system covering Schools, Vocational Education and Training Institutions, Technical Education Institutions, and Universities/Colleges.

The NSQF organizes qualifications according to a series of levels of knowledge and skills. These levels are defined in terms of *learning outcomes* i.e., the *competencies* (knowledge, skills and attitude) which the learners must possess regardless of whether they were acquired through *formal, non-formal or informal* education and training system. *Qualifications* are made up of *occupational standards* for specific areas of learning units or unit of competency. *Units of competency* are the specification of knowledge and skill and the application of that knowledge and skill to the *standard of performance* expected in the workplace. The Unit of competency or National Occupation Standards comprising generic and technical competencies an employee should possess are laid down by the Sector Skill Council of the respective economic or social sector.

The **competency based curriculum** is broken down into coherent parts known as **Units**. Each unit is further broken down into knowledge and skills on the basis of which evidence is to be provided by the learner and the evaluation is to be done by the teacher or trainer.

After successful completion of this course from Level 1 (Class 9) to level 4 (Class 12), students will be able to perform job role of IT Service Desk Attendant. Student can also go for higher education in degree courses in engineering and science stream.

ABOUT THE SECTOR

Information Technology (IT) and Information Technology-enabled Services (ITeS) are one of the most significant growth catalysts for the Indian economy. IT industry has not only influenced the employment prospects of the people but also affected the social lives of the people through networking and social websites. The major segments of the Industry are IT Services, Business Process Outsourcing (BPO), engineering services, research and development and products. IT Products being manufactured in India include personal computers, servers, workstations, supercomputers, data processing equipment, printers, digitizers, networking products, etc. Much of the IT related activities are centred on services in Banking, Financial Services, and Insurance (BFSI), Telecommunication, Manufacturing, and Retail.

Indian IT Industry has been contributing substantially to India's GDP, exports and employment. The sector is responsible for enabling employment to an additional 8.9 million people in various associated sectors – catering, security, transportation, housekeeping, etc – many of whom belong to rural areas/small towns in India. It has grown tremendously over the last 15 years. The industry had about 1,50,000 employees in 1993, and around 5,00,000 employees in 1999 but today, the industry employs around 2.2 million employees. The IT/ITES exports have grown to a staggering US\$ 46.3 billion in 2008-09, the IT sector currently employing 2.2 million professionals directly and another 8 million people indirectly accounts for over 5% of GDP, a majority of the Fortune 500 and Global 2000 corporations are sourcing IT/ITES from India and it is the premier destination for the global sourcing of IT/ITES accounting for 55% of the global market in offshore IT services and garnering 35% of the ITES/BPO market.

It is expected that with the launch of the ultra low-cost Aakaash tablets exclusively for students, use of information technology will increase. Internet has made revolutionary changes with possibilities of e-filing Income Tax returns or applying for passports online or railway e-ticketing. With an Internet user-base of over 125 million, which is likely to grow to about half-a-billion over the next few years, and an established mobile base of 950 million, coupled with a large and talented pool of human resources, India will be a key player in the cyber-world.

| Sn | Level 1 (Calss 9) | Hrs | Level 2 (Calss 10) | Hrs | Level 3 (Calss 11) | Hrs | Level 4 (Calss 12) | Hrs |
|----|-----------------------|------------|----------------------|------------|----------------------|------------|----------------------|------------|
| 1 | Functional English | 30 | Functional English | 30 | Functional English | 40 | Functional English | 40 |
| 2 | Computer Fundamentals | 30 | Web Applications | 20 | Digital Literacy | 20 | Word Processing | 40 |
| 3 | Mastering Typing | 20 | Word Processing | 30 | Word Processing | 30 | Spreadsheet | 40 |
| 4 | Word Processing | 30 | Spreadsheet | 30 | Spreadsheet | 30 | Digital Presentation | 40 |
| 5 | Spreadsheet | 30 | DigitalPresentation | 30 | Digital Presentation | 30 | Email Messaging | 40 |
| 6 | Digital Presentation | 30 | Email Messaging | 30 | Email Messaging | 30 | Web Designing | 60 |
| 7 | Email Messaging | 30 | Database Development | 30 | Computer Networks | 40 | Project Work | 40 |
| 8 | | | | | Web Designing 1&2 | 80 | | |
| | Total Hours | 200 | Total Hours | 200 | Total Hours | 300 | Total Hours | 300 |

OBJECTIVES OF THE COURSE

Upon completion of this course, you will be able to:

- Frame standard sentences in English for introducing yourself, greeting others, expressing about your family, telling time, asking questions, describing weather, expressing likes and dislikes, inviting people, etc.
- Describe the role and functions of various parts of computers.
- Demonstrate the use of various hardware and software in basic operations, such as creating and managing files and folder, changing display, and mouse properties, using Internet and world wide web, using digital media devices.
- Demonstrate the knowledge of preventing harm from natural and human threats.
- Demonstrate the ability to perform touch typing.
- Demonstrate the use of word processor in creating, editing, formatting and printing a document.
- Demonstrate the use of spreadsheet program in creating spreadsheet, entering and editing data, entering formulae for calculations, formatting cells, preparing stock register, inserting currency symbol, checking and correcting spelling errors, applying borders and different styles, and printing worksheets.
- Demonstrate the use of digital presentation software in creating, editing, formatting and printing slides and making presentations.
- Demonstrate the knowledge of opening and operating an email account for reading, composing, editing, sending, forwarding and managing email messages.

Classroom Activities: Classroom activities are an integral part of this programme and interactive lecture sessions, followed by discussions should be conducted by trained teachers. Teachers should make effective use of a variety of instructional aids, such as Videos, Colour Slides, Charts, Diagrams, Models, Exhibits, Handouts, Recorded Compact Discs, etc. to transmit knowledge in projective and interactive mode.

Practical Activities: Activities that provide practical experience through case based problems, role play, games, etc. and practical exercises using props, tools and equipment should be regularly organized off-the-job and on-the-job. Equipment and supplies should be provided to enhance hands-on experiences to students in the chosen occupation. Trained personnel should teach specialized techniques such as dismantling and assembling of computer parts, servicing of computers, operating software programming, etc.

On-the-Job Training: On-the-job training (OJT) occurs whenever more experienced employee or supervisor teaches less experienced person on how to do one or more tasks of a job. The training utilizes actual equipment and materials. OJT should be undertaken in a structured manner with a training plan under the supervision of an experienced trainer or supervisor. A training plan that reflects tasks to be performed and competencies to be imparted should be prepared and signed by the student, teacher, and supervisor at the workplace for training of the students in the organization/industry. The trainer should break down all the steps of the job and train the students as per the training plan. In a structured OJT, the following steps should be followed:

Step 1: The Instructor or the trainer tell, show, demonstrate, and explain. The trainer gives an overview of the task while explaining the constructional details and use of the tools, equipment, materials, etc. in performing the tasks.

Step 2: The Instructor or the trainer demonstrates each step in detail, actually doing the steps of the task and explaining each step, one at a time, while the trainee watches. The steps may not necessarily be demonstrated in the sequence of actual operation, as sometimes it is better that simple tasks are demonstrated first to build confidence. Showing finished products at each appropriate step will help the learner understand what is required as outcome. While demonstrating, the trainer explains why each step is done in the way it is done.

Step 3: It involves direct trainee participation. The trainer monitors the progress on a checklist of competencies and offers feedback and pointers where and when needed.

Step 4: The trainee practices with clearly defined targets for performance standards.

Certification: Upon successful completion of this course, the State Education Board and the IT-ITeS Sector Skill Council will provide a certificate to the student verifying the competencies acquired by the student. For more details about SSC visit the website of NASSCOM at <http://www.nasscom.in/itites-sector-skill-council>.

COMPETENCY BASED CURRICULUM FOR NSQF LEVEL 1 (CLASS 9)

Sector: IT/ITES, Job Role: IT SERVICE DESK ATTENDANT

Objectives:

Upon completion of this course, students will be able to:

- Get familiar with the Computer System Fundamentals and Computer Organization
- Learn basic principles of using operating system Windows and Linux
- Access the Internet to search information
- Learn use e-mail for sending and receiving mails
- Learn basic word processing, spreadsheet and presentation skills with LibreOffice

Course Structure: This course (vocational qualification package) is a planned sequence of instructions consisting of the following modules, called as Units.

| Sn | Unit Code | Unit Title | Theory | Practical | Total |
|----|------------|------------------------------|------------|------------|------------|
| 1 | IT-SDA-101 | Functional English (Basic) | 20 | 10 | 30 |
| 2 | IT-SDA-102 | Fundamentals of Computer | 15 | 15 | 30 |
| 3 | IT-SDA-103 | Mastering Typing | 5 | 15 | 20 |
| 4 | IT-SDA-104 | Word Processor (Basic) | 15 | 15 | 30 |
| 5 | IT-SDA-105 | Spreadsheet (Basic) | 15 | 15 | 30 |
| 6 | IT-SDA-106 | Digital Presentation (Basic) | 15 | 15 | 30 |
| 7 | IT-SDA-107 | Email Messaging (Basic) | 15 | 15 | 30 |
| | | Total Hours | 100 | 100 | 200 |

RELEVANT SKILLS (Generic)

- Reading skill
- Writing skill
- Communication skill
- Language skill
- Behavioral skill
- Observation
- Listing skill
- Analytical skill
- Presence of mind
- Helping
- Decision making
- Arranging
- Presence of mind

Teaching and Training Methods: Theory with Demonstration and Practical Hands on

Location for Training: Classroom and Practical Laboratory

| | |
|------------------------------|---|
| UNIT CODE & TITLE | IT-SDA-101: Functional English (Basic) |
| UNIT DESCRIPTOR | This is a basic unit to improve the communication skills in English languages. It covers the topics on introductory communication in English. Student can frame the simple sentences and communicate with others using these sentences. |
| DURATION | 30 Hours (Theory & Demonstration: 20 Hours, Practical Hands on: 10 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|--|--|--|
| 1 | Introduce self | Introduce self to others using appropriate sentences and body language | Importance of introducing oneself in different occasions/ situations |
| 2 | Greet others | Greet friends by appropriate words and body language Greet strangers using standard sentences | Importance and ways of greeting people |
| 3 | Make sentences to express about one's family | Make simple sentences for telling about one's family | Importance of family and relations |
| 4 | Make sentences to tell the time | Make sentences to tell the time | Importance of punctuality |
| 5 | Frame questions properly | Frame correct questions appropriate to the situation and need | Words generally used for framing questions |
| 6 | Describe people, things and places | Frame sentences for describing people, things and places | Adjectives generally used for describing people, things and places |
| 7 | Describe weather | Frame sentences for describing weather | Adjectives generally used for describing weather |
| 8 | Frame complete sentences | Frame complete sentences | Identify subject and verb in a sentence |
| 9 | Make sentences for expressing the likes and dislikes | Frame correct sentences to express feelings about the likes and dislikes. | Words and it meaning used for expressing likes and dislikes |
| 10 | Make sentences for expressing strengths and weaknesses | Frame correct sentences to express strengths and weaknesses | Words generally used for expressing strengths and weaknesses |
| 11 | Make sentences to express about aspirations | Frame correct sentences to express strengths and weaknesses | Words generally used for expressing aspirations |
| 12 | Tell about the importance of values | Frame correct sentences for expressing about values | Importance of values in one's life |
| 13 | Make sentences to use quantifiers | Frame sentences for making use of countable and uncountable nouns | Difference between countable and uncountable nouns |
| 14 | Frame sentences for inviting people | Frame sentences for inviting people on different occasions | Difference in conversations for inviting people on various occasions |
| 15 | Frame sentences for conversing with people when shopping | Frame sentences that are generally used when shopping for necessities | Words that are generally used when shopping for necessities |
| 16 | Frame sentences for | Frame sentences generally used when | Words generally used when asking for |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|--|---|---------------------------------------|
| | asking the price | asking for the price of products | the price of the product |
| 17 | Frame sentences for negotiation | Frame sentences generally used for negotiations | Words generally used when negotiating |
| 18 | Differentiate between homonyms/ homophones | Frame sentences using homonym and homophone words | Meaning of homonyms and homophones |

| UNIT CODE & TITLE | IT-SDA-102: Fundamentals of Computer |
|-------------------|--|
| UNIT DESCRIPTOR | This unit on fundamentals of computer provides the basic skill to operate the computer and peripheral devices. It gives the knowledge of various parts of computer, their functioning and how to use the operating system and simple applications. |
| DURATION | 30 Hours (Theory & Demonstration: 15 Hours, Practical Hands on: 15 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|--|---|--|
| 1 | Describe the role of computers in different fields | Identify the various components of a computer system Enlist the various types of computer and their configuration Enlist the various types of software and their uses | Role and importance of computers in bank, medical, business, science, education, media, travel and ticketing, weather prediction, sports, arts and entertainment, social media, mobile computing, research, publishing, etc. |
| 2 | Describe the use of various parts of computer | Identify the various parts of computer Connect the cables to the Central Processing Unit Demonstrate the use of mouse | Functions of Central Processing Unit (CPU) Random Access Memory (RAM) and Read Only Memory (ROM) |
| 3 | Describe the functioning of computer system | Identify various ports in a CPU Draw a basic diagram of computer system and label | Various input/ output devices Functions of different units in a computer system |
| 4 | Classify different types of computers and the role of memory | Identify the various types of computers Demonstrate the importance of memory and role of memory in computer functioning | Various terms generally used in selecting and classifying computers Factors affecting computer performance Role of memory in functioning computer |
| 5 | Describe the various keys of keyboard and use of mouse | Demonstrate the procedure of starting and shutting down a computer Demonstrate the use of mouse | Use of mouse and keyboard Use of various function keys and special keys Use of left and right buttons and the scroll wheel of a mouse |
| 6 | Describe the features and functions of | Identify the key components of a | Functions of operating system |

| | | | |
|----|---|---|---|
| | operating system | desktop- task bar, icons, menu, etc. Create and manage files and folders | Menu, icons, task bar on the desktop |
| 7 | Describe the various operations performed on files and folders | Demonstrate to create, delete rename a file and folder Restore files from recycle bin Save files in folders and sub-folders | Utility of files and folders. Procedure of creating files and folders |
| 8 | Describe the uses of Internet | Connect to the Internet Open and close a search engine Search the desired information using a search engine | Different types of connections and the procedure of connecting to the Internet Meaning of bandwidth Websites and search engines |
| 9 | Search information using world wide web | Open and close web browser Enter the URL on the address bar Open a search engine and type the key word for searching Demonstrate to book ticket on Internet | Basic components of world wide web Abbreviations used for expressing the universal resource locator (URL) Concept of e-commerce |
| 10 | Describe the use of digital media devices | Enlist various input and output digital media devices Connect media devices to computer Demonstrate the use of media devices. Add and remove hardware and software | Input and output digital media devices – printers, web cams, scanners, camcorder, etc. |
| 11 | Describe various measures to protect computer against natural and human threats | Demonstrate the knowledge of preventing harm to computers from natural and human threats. | Meaning of natural and human threat Various measures to protect a computer from human threat and natural threats |

| | |
|------------------------------|---|
| UNIT CODE & TITLE | IT-SDA-103: Mastering Typing |
| UNIT DESCRIPTOR | Typing skills is an essential to work on the computer. This unit provides the skills and techniques of typing in computer system. The skill is imparted by using a software on typing tutor. Practicing this tutor allows the student to type the correct words and improve the typing speed. |
| DURATION | 20 Hours (Theory and Demonstration: 5 Hours, Practical Hands on: 15 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|--|---|--|
| 1 | Describe the purpose of various keys on a keyboard | Demonstrate the use of alphanumeric, punctuation and special keys | Alphanumeric, punctuation and special keys |
| 2 | Demonstrate | Demonstrate touch typing | Rules to be followed while performing |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|--|--|--|
| | touch typing | | touch typing |
| 3 | Describe the various level in rapid typing software and its use | Type a paragraph and interpret results with regard to the bench marks in typing | Various levels and bench mark in rapid typing software |
| 4 | Describe the procedure of viewing and analyzing statistics of the progress in typing | Demonstrate the knowledge of statistics section of typing tutor for assessing the progress in typing | Procedure of viewing and analyzing statistics of the progress in typing |
| 5 | Demonstrate the use of lesson editor for touch typing | Demonstrate the use of lesson editor | Procedure for using lesson editor in adding a new lesson and learning typing |

| UNIT CODE & TITLE | IT-SDA-104: Word Processing (Basic) |
|------------------------------|---|
| UNIT DESCRIPTOR | Word processing skills are the first hand skill required for any office operation, creating a document, letter etc. This unit provides the basic skills in word processing. |
| DURATION | 30 Hours (Theory and Demonstration: 15 Hours, Practical Hands on: 15 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|---|--|---|
| 1 | Getting Started with Word Processor | Open and close a word processor Create and open a word document file Type words in the text area | Use of word processing software in creating, editing and saving documents Different word processing software |
| 2 | Edit and save documents | Type a given passage Edit the passage and save the file | Procedure adopted for opening, editing and saving a file |
| 3 | Identify the elements of user interface | Identify various elements of user interface and describe their uses | Various elements of user interface |
| 4 | Format a document by applying bold, italics, underline | Demonstrate the knowledge of the use of text formatting tool bars for performing the Bold, Italic, Underline | Use of various text formatting tool bars for formatting |
| 5 | Check and replace the spelling errors using spell and grammar check | Demonstrate the procedure of checking spelling errors and correcting them using mouse and menu | Procedures of checking spelling errors and correcting them – using mouse and menu |
| 6 | Use thesaurus and synonym features | Demonstrate the procedure of using thesaurus and synonym features | Procedures of using thesaurus and synonym features |
| 7 | Apply copy-paste and cut-paste | Demonstrate the procedure for copying and pasting text and moving text | Procedure for copying and pasting text and moving text |
| 8 | Use “find and replace” feature to find and replace word in a document | Demonstrate the “find and replace” feature for finding and replacing word in a document | Utility of the feature - find and replace |
| 9 | Create list of items using bulletes and numbering | Demonstrate the procedure of applying bullets and numbering to text | Bullets and numbering formats Ordered and unordered list |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|--|--|--|
| 10 | Set or change font style and size | Demonstrate the procedure of changing font style and size | Procedure of changing font style and size |
| 11 | Align the text | Perform left, right and centre alignment of text | Procedure of aligning a text. |
| 12 | View a document | Demonstrate the use of various options of "View tab" | Use of print layout, full screen reading, web layout, outline and draft features of viewing the document |
| 13 | Print a document | Use of different print settings Print a word document | Various features of print command |
| 14 | Create table in a document | Create/ insert a table with specified number of rows and columns | Procedure of creating table |
| 15 | Format a table | Format a table using "Design tab" and "Layout" feature in formatting a table | Procedure of formatting a table |
| 16 | Convert text to a table and table to text | Convert text into table Convert table to text | Procedure of converting text to a table and table to text |
| 17 | Add borders to pages, paragraphs text | Set border in a page Set border on a selected text | Procedure of setting borders to a page, paragraph and text |
| 18 | Add shadings to pages, paragraphs text | Apply shades to a page, paragraph and text | Procedure of shading a page, paragraphs and text |
| 19 | Preview a document, adjust margins and orientation | Set page margins and page orientation (portrait or landscape) | Procedure of previewing a document, adjusting margin and orientation |
| 20 | Align text using tabs | Align text using tabs | Types of tabs – centre, left, and right |

| | |
|------------------------------|---|
| UNIT CODE & TITLE | IT-SDA-105: Spreadsheet (Basic) |
| UNIT DESCRIPTOR | Charting and numerical processing is generally performed in the spreadsheet application. This unit provides the basic skills in creating, opening, saving and managing the spreadsheet. |
| DURATION | 30 Hours (Theory and Demonstration: 15 Hours, Practical Hands on: 15 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|------------------------------------|---|---|
| 1 | Introduce with spreadsheet | Identify the elements of spreadsheet Start the spreadsheet application Create spreadsheet | Key features of a spreadsheet software |
| 2 | Open, save and a close spreadsheet | Open an existing spreadsheet Insert data in cells Save spreadsheet with a file name Close spreadsheet document | Procedure for opening, closing and saving a spreadsheet |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|---|---|--|
| 3 | Enter data in a spreadsheet | Enter different forms of data in a spreadsheet | Different data types that can be inserted in a spreadsheet |
| 4 | Perform basic calculations – addition | Enter the formula at the appropriate cell for adding the figures | Procedure of entering formula for addition |
| 5 | Perform basic calculations – subtraction | Enter the formula at the appropriate cell for subtraction | Procedure of entering formula for subtraction |
| 6 | Perform basic calculations – multiplication | Enter the formula at the appropriate cell for multiplication | Procedure of entering formula for multiplication |
| 7 | Perform basic calculations – division | Enter the formula at the appropriate cell for division | Entering formula for division |
| 8 | Insert column and rows | Insert and remove rows and columns in a spreadsheet Merge rows and columns | Modify rows and columns |
| 9 | Format cells and contents | Adjust size of the text Set background color of cell & cell border Change cell properties | Formatting a cell |
| 10 | Customize the interface | Demonstrate adding and removing icons and buttons from ribbon | Customizing the interface |
| 11 | Use a currency symbol in spreadsheet | Demonstrate the knowledge of inserting the currency symbol in the cell | Inserting currency symbol |
| 13 | Format the cell contents | Change the format, style and size in cell | Formatting a cell |
| 14 | Delete column and row | Delete column and row | Deleting column & row |
| 15 | Use spell check in a spreadsheet | Demonstrate and use spell check button for checking spellings in a spreadsheet | Checking spelling in spreadsheet |
| 16 | Assign border to cells | Adjust cell layout Use various options for setting border | Applying border on spreadsheet |
| 17 | Apply colors and styles to cells | Apply different colors and styles on border | Applying colors on spreadsheet |
| 18 | Manage worksheet | Demonstrate the knowledge of adding, removing and creating a worksheet | Adding, removing and creating a worksheet |
| 19 | Preview and print a spreadsheet | Preview spreadsheet in print preview Set basic printer options to print a spreadsheet Print selected part of spreadsheet Print the spreadsheet | Printing a spreadsheet |

| | |
|------------------------------|---|
| UNIT CODE & TITLE | IT-SDA-106: Digital Presentation (Basic) |
| UNIT DESCRIPTOR | This unit provides the understanding of digital presentation. The presentation is prepared in the presentation application. It gives the skills and knowledge about the presentation package and how to create and show the presentation to the audience. |
| DURATION | 30 Hours (Theory and Demonstration: 15 Hours, Practical Hands on: 15 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|--|--|---|
| 1 | Introduce with digital presentation | Identify elements of user interface Open existing presentation | Various presentation software popularly used for preparing presentation Use of various tabs, ribbons and icons |
| 2 | Create, save and close presentation | Start digital presentation software Open a new file for presentation Select the template for the new presentation Create new presentation Save a presentation Select appropriate design and layout Change the background of the slides | Procedure of creating and saving presentation |
| 3 | Create a simple presentation | Insert or create text boxes Add text to the text boxes | Procedure of creating text boxes |
| 4 | View a presentation | View the presentation in different ways | Different views of presentation |
| 5 | Change font size, style and colour of the text | Add text in a slide of the presentation Change font style, size and text colour | Procedure of changing font size, style and colour of the text |
| 6 | Edit text, font style and colors in presentation | Align the text left, right and centre Make the text bold, italic and underline Change the text box background colour Create bulleted and numbered list | Procedure of editing text |
| 7 | Insert image in slides | Insert an image in a slide Resize the image Rotate the image | Procedure of inserting image in a slide |
| 8 | Insert shapes and graphics in presentation | Insert graphics and shapes in the slides Move and adjust shapes in presentation Adjust image size Insert clip art in a slide | Procedure of adding shapes and graphics Procedure of adding clipart |
| 9 | Apply themes to the presentation | Create a presentation Apply appropriate theme | Procedure of applying themes to the presentation |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|---|--|--|
| | | Save the presentation | |
| 10 | Change design of the presentation | Create a presentation Use a background style option for changing the design of presentation | Procedure of changing design of the presentation |
| 11 | Arrange, delete and add slide – slide sorter view | Create a presentation Use slide sorter option to rearrange Move the slides Add slides between two slides Delete the slides | Procedure of arranging, deleting and adding slide |
| 12 | Print a presentation | Create a presentation Print a slide Print handouts with 2,4, and 6 slides | Describe the procedure of saving and printing a presentation |

| | |
|------------------------------|--|
| UNIT CODE & TITLE | IT-SDA-107: E-mail Messaging (Basic) |
| UNIT DESCRIPTOR | This unit provides the skill in using Email messaging for sending and receiving emails, and using different features of email application. |
| DURATION | 30 Hours (Theory and Demonstration: 15 Hours, Practical Hands on: 15 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|---|--|---|
| 1 | Introduce with e-mail service | Identify the various elements of the email message | Purpose of e-mail service, elements of email, email message format |
| 2 | Create an E-mail account in Gmail | Open an e-mail account with Gmail Sign in an email account Logout an email account | Procedure of creating an e-mail account with Gmail |
| 3 | Create an E-mail account in Outlook | Open an e-mail account with Outlook Login/ Sign in an email account Logout an email account | Procedure of creating an e-mail account with outlook |
| 4 | Link email address to email application | Demonstrate the knowledge of linking email address with Outlook | Procedure of linking email address to email application |
| 5 | Introduce with email interface | Sign in the email account and observe the email interface Identify and name the various componets of email interface | Email interface and componets of email interface Use and working of each componet of email interface |
| 6 | Compos email messages | Sign in email account, add signature, Compose message and subject line, Prepare a draft message Open, Edit and Send message | Procedure of creating/composing email messages |
| 7 | Receive and respond to the email messages | Sign in email account Read the message in the inbox | Procedure of opening and responding to the email messages |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|--|---|---|
| | | Prepare reply to the message Forward the message to a recipient | |
| 8 | Format email message and checking for spelling errors | Demonstrate text aligning, Bold, underline and italicize the text Check and correct the spelling errors | Procedure of aligning the text in the message and checking and correcting the spellings |
| 9 | Attach files and images with e-mail message | Compose a new message Attach text and image file with the message Send message | Procedure of attaching file to the email message |
| 10 | Use help feature for finding solutions to the problems | Write appropriate key word and use the index for finding solutions to the problems | Procedure of using help for finding solutions to the problems |
| 11 | Print email message | Sign in email account Read the message in inbox Print email message using options | Procedure of printing a message |
| 12 | Organize emails and manage contacts | Create a contact Edit a contact Add contacts to contact group Delete a contact | Procedure of organizing and managing emails |
| 13 | Organize email messages using folders | Demonstrate the knowledge of creating, renaming, moving and deleting folders Demonstrate the procedure of transferring emails to the folders | Procedure of creating, moving and deleting folders |

COMPETENCY BASED CURRICULUM FOR NSQF LEVEL 2 (CLASS 10)

Sector: IT/ITES, Job Role: IT SERVICE DESK ATTENDANT

Objectives:

Upon completion of this course, students will be able to:

- Get familiar with the Computer System Fundamentals and Computer Organization
- Learn basic principles of using operating system Windows and Linux
- Access the Internet to search information
- Learn use e-mail for sending and receiving mails
- Learn basic word processing, spreadsheet and presentation skills with LibreOffice

Course Structure: This course (vocational qualification package) is a planned sequence of instructions consisting of the following modules, called as Units.

| Sn | Unit Code | Unit Title | Theory | Practical | Total |
|----|------------|-------------------------------------|------------|------------|------------|
| 1 | IT-SDA-201 | Functional English (Intermediate) | 20 | 10 | 30 |
| 2 | IT-SDA-202 | Web Applications (Basic) | 05 | 15 | 20 |
| 3 | IT-SDA-203 | Word Processing (Intermediate) | 15 | 15 | 30 |
| 4 | IT-SDA-204 | Spreadsheet (Intermediate) | 15 | 15 | 30 |
| 5 | IT-SDA-205 | Digital Presentation (Intermediate) | 15 | 15 | 30 |
| 6 | IT-SDA-206 | Email Messaging (Intermediate) | 15 | 15 | 30 |
| 7 | IT-SDA-207 | Database Development | 15 | 15 | 30 |
| | | Total Hours | 100 | 100 | 200 |

RELEVANT SKILLS (Generic)

- Reading skill
- Writing skill
- Communication skill
- Language skill
- Behavioral skill
- Observation
- Listing skill
- Analytical skill
- Presence of mind
- Decision making
- Arranging
- Processing
- Presence of mind

Teaching and Training Methods: Theory with Demonstration and Practical Hands on

Location for Training: Classroom and Practical Laboratory

| | |
|------------------------------|---|
| UNIT CODE & TITLE | IT-SDA-201: Functional English (Intermediate) |
| UNIT DESCRIPTOR | This is a basic unit to develop communication in English language by way of learning and using the functional English in our daily life conversations. It develops the understanding and improve communication skills in English. |
| DURATION | 30 Hours (Theory and Demonstration: 20 Hours, Practical Hands on: 10 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|--|--|--|
| 1 | Order Food at a Restaurant | Frame the sentences used for ordering food in the restaurant | Ways of ordering food at restaurants |
| 2 | Making Resolutions | Frame multiple sentences used for making resolutions | Importance of resolutions |
| 3 | Talking about Change | Identifying the Active voice and passive voice sentences | Grammatical ways of talking about changes |
| 4 | Planning an Outing | Identifying the correct/incorrect use of the pronouns | Different types of sentences for planning an outing |
| 5 | Narrating a Story | Identifying and writing the sentences using correct tenses | Ways to effectively narrate a story using correct tense |
| 6 | Describing a Known Place | Combine the phrases to describe a known place | Known places using adjectives and adverbs |
| 7 | Giving Directions | Give sentences to describe different route from a route chart | Different words used for giving directions using prepositions |
| 8 | Describing an Event | Using odd one out of the correct sentences for describing an event | Event place using effective verbal |
| 9 | Recounting an Experience | Recounts the sentences to tell about a story or an event | Past events by retelling the events in the sequence in which they occurred |
| 10 | Finding a Place to Stay | Change the sentences into different types of tenses | Place to stay |
| 11 | Saying No | Describe the appropriate ways of saying No in different situations | Effective grammatical ways of saying No |
| 12 | Describing a Lost Item | Finding out the correct word from information to describe a lost item | Ways of describing a lost item |
| 13 | Appreciating Someone | State appreciation styles in different situations | Different ways of appreciating someone at workplace, home, etc. |
| 14 | Attending a Phone Call | Explain the appropriate way to respond on phone call in different situations | Different styles for attending a phone call in different situations |
| 15 | Giving Instructions | Describe ways of giving instructions in multiple situations | Appropriate prepositions to be used while giving instructions |
| 16 | Registering a Complaint | Rearranging the sentences for logging the complaint | Different ways of registering a complaint in different situations |
| 17 | Calling up to Find about a Job Vacancy | Use correct words for sentences used for job vacancy finding call | Enlists the sentences used while calling for finding a job vacancy |
| 18 | Writing a Resume | Enlist the parameters and formats be included in resume | Different formats, cover letter, inclusions, etc. of a resume |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|-------------------------------|--|---|
| 19 | Writing a Covering Letter | Write cover letter for any specific occupation | Cover letters in different formats |
| 20 | Facing an Interview | Enlist the common interview questions and their answers | Common interview questions |
| 21 | Taking a Telephonic Interview | Explain telephonic interview statement Answer the typical interview questions | Standards of a telephonic interview |
| 22 | Accepting a Job Offer | Explain the formats/words/phrases used while accepting a Job offer | Points included while accepting a job offer |

| UNIT CODE & TITLE | IT-SDA-202: Web Applications (Basic) |
|------------------------------|---|
| UNIT DESCRIPTOR | This unit develops the skills and knowledge for using various Internet applications such as instant messaging, Google talk, using and publishing blogs etc. |
| DURATION | 20 Hours (Theory and Demonstration: 5 Hours, Practical Hands on: 15 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|--|--|--|
| 1 | Use accessibility options | Activate the required accessibility options in the operating system for different types of impaired users | Different types of impaired computer users, various accessibility options for different impaired groups |
| 2 | Use computer in network environment | Demonstrate the different wired and wireless network connections Demonstrate the process to connect with Internet | Introduction to network fundamentals and network connections – wired and wireless Internet and its connectivity |
| 3 | Use instant messaging services on the Internet | Create account in various instant messaging services Use instant messaging | Instant messaging services, creating account and using instant messaging services |
| 4 | Use Google talk for chatting with a contact | Chat using Google talk | Chatting Features of Google talk |
| 5 | Create and Publish Web Pages – Blog | Demonstrate the creation and publishing of web pages and blogs | Web pages and blogs Creating pages and blogs Publishing pages and blogs |
| 6 | Use blog editors off-line | Demonstrate the use of off-line blog editors | Off-line blog editors How to use off-line blog editors |

| UNIT CODE & TITLE | IT-SDA-203: Word Processing (Intermediate) |
|------------------------------|---|
| UNIT DESCRIPTOR | This unit develops the word processing skills. It covers the topics on formatting the document, using document template and elementary features of word processing. |
| DURATION | 40 Hours (Theory and Demonstration: 20 Hours, Practical Hands on: 20 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|--|--|--|
| 1 | Insert headers and footers in the document | Demonstrate to insert headers and footers in different format in the word document | Use of headers and footers in word document Procedure to insert headers and |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|---|--|--|
| | | | footers in a document |
| 2 | Format the document | Demonstrate formatting of page using different formatting options, changing portrait orientation to landscape | What is formatting? Procedure of formatting a document |
| 3 | Use document template | Demonstrate the use of template on word document | Advantages of using documents template in preparing a document Steps to be followed to apply template on word document |
| 4 | Use page break and section break | Demonstrate the procedure of breaking a page and a section | Page and section in a document Use of page break and section break |
| 5 | Usage of clip art in the document | Demonstrate the use of clip art in word document | What is clipart, advantages of using clip art in document |
| 6 | Insert symbols, images and graphics shape | Demonstrate the use of symbols in word document Demonstrate the use of images and graphic shapes | Advantages of inserting graphics and images in a word document Use of symbols in a word document |
| 7 | Describe the process of inserting watermark in word document | Demonstrate a process of inserting watermark in a document | Process of inserting water marks in word document |
| 8 | Describe the process of performing calculation on tabular data in word document | Demonstrate the process of performing calculation on tabular data | Process of performing calculation on tabular data |
| 9 | Describe the process of editing image | Demonstrate the procedure of editing images | Use of crop and resize tools for image editing |
| 10 | Use text wrapping feature | Create a document and demonstrate the text wrapping feature | What is text wrapping? How to perform text wrapping |
| 11 | Insert different objects in the document | Demonstrate the process of inserting different different objects like symbols, shapes and images in the document | Different types of objects, advantages of using different objects in the document, Inserting the object in the document |
| 12 | Create complex Illustrations with 'SmartArt' | Demonstrate the use of 'SmartArt' feature | Advantage of using 'SmartArt' feature for creating complex Illustration |

| UNIT CODE & TITLE | IT-SDA-204: Spreadsheet (Intermediate) |
|-------------------|--|
| UNIT DESCRIPTOR | This unit develops the intermediate skills in spreadsheet application. It covers the topics on page layout, conditional formatting, using formula for sum of cell values and other intermediate skills in spreadsheet application. |
| DURATION | 30 Hours (Theory and Demonstration: 15 Hours, Practical Hands on: 15 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|--|---|---|
| 1 | Perform sum of cell values using autosum | Creating a spreadsheet having student names and marks obtained and apply autosum for totaling the marks | Use of autosum in spreadsheet How to perform a autosum functions to perform addition in spread sheet |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|---|---|--|
| 2 | Perform conditional formatting of the cells | Creating spread sheet using different styles and rules of conditional formatting | What is conditional formatting Different styles and rules of conditional formatting |
| 3 | Hide, unhide and freeze rows and columns | Creating the spread sheet using Hiding/ unhiding rows and columns Creating the spread sheet using freezing the rows and columns | How to Hide / Unhide / Rows and Columns How to Freeze Rows and Columns What is the use of Hide / Unhide / Freeze Rows and Columns |
| 4 | Set page break | Creating the spreadsheet having multiple page breaks | How to use a page break option in a spreadsheet |
| 5 | Set page layout | Creating the spreadsheet using different options available in page layout (Margins, Orientation, headers and footers, Hide or display grid lines, page size, define the print area, specify the background) | How to layout the page in spreadsheet Different options available in page layout |
| 6 | Display the workbook in different views | Demonstrate the advantages of showing workbook records in different views like: Normal Page Layout, Page Break Preview, Custom view, Full Screen views in worksheet | Advantages of showing workbook records in different views like: Normal Page Layout, Page Break Preview, Custom view, Full Screen view etc. |
| 7 | Name the cell and cell range | Creating spreadsheet naming cell and naming cell range using different examples | Advantage of naming the cell/ cell range How to assign a name to an individual cell as well as to the cell range |
| 8 | Create and format charts | Creating charts using different elements like: hart area, plot area, data points, horizontal and vertical axis, legend, chart and axis title, data label Creating different types of charts, modifying and formatting them | Advantages of making charts Procedure of making charts Different elements used in charts Different types of chart Formating the charts |
| 9 | Sort and filter data | Demonstrate the use of sort and filter feature of spreadsheet using different data | Advantages of sorting and filtering data How to sort and filter records |
| 10 | Calculate data across worksheets | Creating a worksheet for calculating data across the rows and columns | How to calculate data across rows and columns |
| 11 | Linking the cells in multiple workbooks | Creating multiple workbooks and establishing the linkages between various cells | Advantage of linking the cells in multiple workbooks Options to link the cells in multiple workbooks |
| 12 | Share worksheet data | Creating a worksheet and sharing it for updating the data | Advantage of sharing worksheet data |

| | |
|------------------------------|--|
| UNIT CODE & TITLE | IT-SDA-205: Digital Presentation (Intermediate) |
| UNIT DESCRIPTOR | This unit develops the intermediate skills in digital presentation. It covers the topics on inserting table, chart, picture, movie, objects as well as grouping objects. |
| DURATION | 30 Hours (Theory and Demonstration: 15 Hours, Practical Hands on: 15 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|-------------------------------------|---|---|
| 1 | Insert movie in presentation | Creating a presentation having movie Procedure of animating graphical object in a slide | Advantages of inserting movie in presentation How to insert movie in presentation |
| 2 | Insert audio clips in presentation | Creating a presentation having Audio Clips | Advantages of inserting audio clips in presentation How to insert Audio Clips in presentation |
| 3 | Insert table in a presentation | Creating presentation by importing table from another application | Procedure of inserting table in a presentation, importing table from different application How to format a table in a presentation |
| 4 | Use charts in presentation | Demonstrate the procedure of creating chart for the presentation | Procedure of inserting charts in a slide Advantage of using charts in a presentation |
| 5 | Insert transitions and animations | Creating presentation by inserting transitions and animations | Procedure of inserting transitions and animations |
| 6 | Grouping objects | Creating presentation by grouping objects | Advantage of grouping objects Grouping Objects in presentation |
| 7 | Insert speaker notes | Creating presentation by inserting speakers note | How to insert speakers note |
| 8 | Review content | Reviewing the contents of presentations | How to review content |
| 9 | Prepare to deliver the presentation | Delivering presentation by choosing the appropriate way as per the availability of equipments | How to deliver the presentation |
| 10 | Print a presentation | Print the presentation in handout format | Various print formats of presentation |

| | |
|------------------------------|---|
| UNIT CODE & TITLE | IT-SDA-206: E-mail Messaging (Intermediate) |
| UNIT DESCRIPTOR | This unit develops the intermediate skills in email messaging. It covers the topics on managing calendar, appointments, meetings etc. |
| DURATION | 30 Hours (Theory and Demonstration: 15 Hours, Practical Hands on: 15 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|-------------------------|--|--|
| 1 | Manage calendar | Enlist the steps to manage (add, edit, delete) schedule in e-mail calendar | Concept of time management How to utilizes the calender |
| 2 | Manage appointments | Scheduling (add, edit and delete) appointments in e-mail calendar | Schedule an appointments in calenders |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|---------------------------------|--|--|
| 3 | Categorize an appointments | Categorizing an appointments as per our priorities | Params for categorizing the appointments |
| 4 | Share and print calender | Sharing the calendar with others and Printing a calender | Use of sharing, How to share and print the calendar |
| 5 | Create a meeting request | Sending meeting request to multiple user | How to send meeting request to user |
| 6 | Respond to a meeting request | Responding to a meeting request sent by the host | How to respond to a meeting request |
| 7 | Create and edit a task | Enlist the created tasks that can be edited with save options Prepare a process flow diagram for creating and editing the tasks | Process for creating and editing the tasks |
| 8 | Create and edit a note | Prepare a process flow diagram for editing and saving the Note | Process flow diagram for creating and editing the Note |
| 9 | Create and edit a journal entry | Create and edit Journal entries | Journal entry and process to create and edit a journal entry |

| UNIT CODE & TITLE | IT-SDA-206: Database Development (Basic) |
|-------------------|--|
| UNIT DESCRIPTOR | This unit develops the basic skills in database development. It covers the topics on introduction to database concepts, creating database objects and tables, using table for data manipulation etc. |
| DURATION | 30 Hours (Theory and Demonstration: 15 Hours, Practical Hands on: 15 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|----------------------------------|--|--|
| 1 | Introduce with database concepts | Creating table as per DBMS | DBMS and Database concepts |
| 2 | Store data in table | Store data in tables as per data types (Numeric, alphanumeric, binary type, date & time, other variable types), Create data fields with primary key | How to store Data in a table Concept of row, column, database fields, data types, primary key etc |
| 3 | Manipulate with data | Demonstrate the commands to retrieve the records as per the requirement | Data manipulation and retrieval mechanism |
| 4 | Create a database object | Creating database objects | What is database objects How to create database objects |
| 5 | Create a table | Creating table in DBMS | Process to create table in DBMS |
| 6 | Build forms | Creating forms in DBMS | What is form and how to create form |
| 7 | Create and manage queries | Creating and executing the queries in the database | Procedure to create and manage Queries |
| 8 | Design reports | Designing a report | What is report, Designing a report from database |

COMPETENCY BASED CURRICULUM FOR NSQF LEVEL 3 (CLASS 11)

Sector: IT/ITES, Job Role: IT SERVICE DESK ATTENDANT

Objectives:

Upon completion of this course, students will be able to:

- Get familiar with the Computer System Fundamentals and Computer Organization
- Learn basic principles of using operating system Windows and Linux
- Access the Internet to search information
- Learn use e-mail for sending and receiving mails
- Learn basic word processing, spreadsheet and presentation skills with LibreOffice

Course Structure: This course (vocational qualification package) is a planned sequence of instructions consisting of the following modules, called as Units.

| Sn | Unit Code | Unit Title | Theory | Practical | Total |
|----|------------|---------------------------------|------------|------------|------------|
| 1 | IT-SDA-301 | Functional English (Advanced) | 30 | 10 | 40 |
| 2 | IT-SDA-302 | Digital Literacy | 10 | 10 | 20 |
| 3 | IT-SDA-303 | Word Processing (Advanced) | 15 | 15 | 30 |
| 4 | IT-SDA-304 | Spreadsheet (Advanced) | 15 | 15 | 30 |
| 5 | IT-SDA-305 | Digital Presentation (Advanced) | 15 | 15 | 30 |
| 6 | IT-SDA-306 | Email Messaging (Advanced) | 15 | 15 | 30 |
| 7 | IT-SDA-307 | Computer Networks | 20 | 20 | 40 |
| 8 | IT-SDA-308 | Web Designing Part 1 | 20 | 20 | 40 |
| 9 | IT-SDA-309 | Web Designing Part 2 | 20 | 20 | 40 |
| | | Total Hours | 160 | 140 | 300 |

RELEVANT SKILLS (Generic)

- Reading skill
- Writing skill
- Communication skill
- Language skill
- Behavioral skill
- Observation
- Listing skill
- Analytical skill
- Presence of mind
- Decision making
- Arranging
- Processing
- Presence of mind

Teaching and Training Methods: Theory with Demonstration and Practical Hands on
Location for Training: Classroom and Practical Laboratory

| | |
|------------------------------|---|
| UNIT CODE & TITLE | IT-SDA-301: Functional English (Advanced) |
| UNIT DESCRIPTOR | This unit develops the English language skills required for reading, writing and communication. |
| DURATION | 40 Hours (Theory and Demonstration: 30 Hours, Practical Hands on: 10 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|--|---|---|
| 1 | Dress and Hygiene | Explain the importance of dress and hygiene Maintain good hygiene | Reasons for maintaining/ following a good hygiene Common terms used about dress and hygiene |
| 2 | Preparing a Daily and Weekly Work Plan | Identify the key points to remember while planning your daily and weekly goals | The concept of work plan Need of work plan |
| 3 | The Importance of Computers | Identify the use and importance of computers in various fields | Importance of computers in today's world |
| 4 | Identifying different types of Computers | Explain the advantages and disadvantages of different types of computers | Types of computers |
| 5 | Computer Brands and Models | Identify the brand ambassador of different computer brands Identify the features defending the brand | Categories of computers Describes the issues/features which defends the brand Terms related to computer brands and models |
| 6 | Features, advantages and benefits | Explain FAB of product | FAB of the product |
| 7 | Locating Products | Identify the roles and responsibilities of a Sales Representative | Activities of sales representative |
| 8 | Complaint Handling | Identify the importance of keeping a customer happy Identify the reasons why customers complain | Nature of a complaint Result a complaint has on business Different ways of handling a complaint |
| 9 | Categorizing Computer Issues | Identify various computer related issues in different categories | Categorizing How to categorize products and understand instructions related to it |
| 10 | User Manual | Identify the sections of User Manual | Purpose of User Manual |
| 11 | Cross Selling | Identify common terms and phrases used while cross selling a product | Cross selling Methods for cross selling |
| 12 | Merchandizing Via Technology | Experience the advantages and disadvantages of online and tele-merchandizing | Online and tele-merchandizing Issues arises in online and tele-merchandizing |
| 13 | Product Promotion | Identify most common Product | Product promotion |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|---|---|---|
| | | Promotion methods Explain the strategies for a product promotion by different ways | Different ways of promoting a product |
| 14 | Closing a Deal | Close the deal document by following appropriate procedures | How to close a deal Tactics used in closing a deal |
| 15 | Stock Count | Identify the benefits of Stock Count | Tasks involved in a Stock Count |
| 16 | Writing a Customer Service Report (CSR) | Understand the format of CSR Make a CSR of different complaints | Customer service report Purpose of Customer Service Report |

| UNIT CODE & TITLE | IT-SDA-302: Digital Literacy |
|-------------------|--|
| UNIT DESCRIPTOR | This unit describes the basic understanding of digital literacy required in IT world. It develops the competency in practicing ethics in digital world, follow copyright laws, plagiarism and cyberlaws. |
| DURATION | 20 Hours (Theory and Demonstration: 10 Hours, Practical Hands on: 10 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|---|---|---|
| 1 | Explore ethics in Digital world | Explain the concept of Intellectual property, ownership and transfer rights by examples | Concept of Intellectual property, ownership and transfer rights |
| 2 | Follow copyright laws, Trademark and Patent | Demonstrate about how to protect the document with copyright, Demonstrate how to use the copyright documents | Copyright laws, rights, jurisdiction, validity and symbol, Trademark and Patents |
| 3 | Explore the plagiarism | Demonstrate the process of detecting a plagiarism using appropriate websites | Concept of Plagiarism, Internet Plagiarism, Detecting Plagiarism |
| 4 | Avoiding Violations | Demonstrate and follow the best practices to avoid copyright violations | Methods & licensing types for publication, Impact of violation of copyright laws |
| 5 | Cyberlaws | Demonstrate the happenings of cyber crime and its treatment by cyber laws | Cyber crime and cyber laws, places of cyber crime, how it occurs, who does it, effect of cyber crime on the digital world |

| UNIT CODE & TITLE | IT-SDA-303: Word Processing (Advanced) |
|-------------------|--|
| UNIT DESCRIPTOR | This unit develops the skills in word processing at advanced level. Student can learn and practice the advanced features of word processing. |
| DURATION | 30 Hours (Theory and Demonstration: 15 Hours, Practical Hands on: 15 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|---|---|---|
| 1 | Sort, renumber and customize a list, Multilevel list | Demonstrate the sorting process in particular order, Demonstrate the process of numbering, renumbering, assigning bullets and numbers to single and multilevel list Demonstrate the various customizing options | Process of sorting, sorting type and order, sorting function, list types, Renumbering process, Customizing |
| 2 | Insert watermark in the document | Demonstrate how to add watermark in the document | What is watermark, Custom watermark, Adding watermark in a document |
| 3 | Explore and work with different features of table manipulations | Demonstrate how to insert table, rows, column, change the appearance, style and properties of table. Demonstrate table auto format, changing size, style, format of table | Tabulation concept in word processing, create, delete, select table, Manipulate table properties, select, add, delete rows/ columns in a table, Change height, width, style and format of table |
| 4 | Styling a document with styles | Demonstrate how to create, delete, modify and assess style in word processing | Importance of style, creating a style, assessing style, deleting and modifying a style |
| 5 | Insert and work with themes in a document | Demonstrate how to select and delete themes to the documents Demonstrate downloading themes from Internet Demonstrate customizing the themes | Importance of themes, default theme, sources of collecting themes, assigning themes to the document, downloading themes from the Internet, customizing a theme |
| 6 | Insert and work with pictures in a document | Demonstrate how to insert picture, compress and resize a picture, crop a picture, using the appropriate picture editing tools and techniques | Options to insert picture, modify picture and its appearance, compress a picture, resize a picture, crop a picture Picture tools and techniques Improve picture quality Apply special effects to picture |
| 7 | Insert and work with screen-shots in a document | Demonstrate how to capture screen-shot and insert in the word document Demonstrate how to format a screen-shot | What is screen-shot, What is active window Insert a screen-shot in a document Format a screen-shot |
| 8 | Create Text boxes and Pull Quotes | Insert text boxes and pull quotes Customize the text boxes | What are text boxes and pull quotes How to insert text box & pull quotes Customize text box |
| 9 | Insert word art and other special effects in a document | Assign word art and special effects to the text in a document Demonstrate how to insert and remove word art effect to the text | Features of word art What is the importance of word art options to insert and remove word art in a document |
| 10 | Create and use Smart | Demonstrate how to create Smart Art | What is Smart Art |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|---------------------------------|--|---|
| | Art in a document | diagram, add visual effects to it, modify the Smart Art contents | Smart Art categories, diagram Adding visual effects to Smart Art Modifying Smart Art contents |
| 11 | Control Text Flow in a document | Demonstrate how to control the text flow in word document | What is text flow, where it is used, how to control a text flow in word processing |

| | |
|------------------------------|--|
| UNIT CODE & TITLE | IT-SDA-304: Spreadsheet (Advanced) |
| UNIT DESCRIPTOR | This unit develops the skills in spreadsheet at advanced level. Student can learn and practice the advanced features of spreadsheet. |
| DURATION | 30 Hours (Theory and Demonstration: 15 Hours, Practical Hands on: 15 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|--|---|--|
| 1 | Insert and modify pictures and clip art in a spreadsheet | Demonstrate how to insert picture and clipArt in a spreadsheet Demonstrate how to apply effects to picture & clipArt to improve appearance | Pictures and clipArts Procedure to insert picture and clipArt Apply effects to pictures and clipArt |
| 2 | Draw and modify shapes in a spreadsheet | Demonstrate the process of inserting and modifying shapes in the spreadsheet | Shapes in a spreadsheet Process to draw and modify shapes |
| 3 | Illustrate workflow using SmartArt graphics in a spreadsheet | Demonstrate how to create and modify graphical illustration using workflow process | What is workflow process and SmartArt Graphics Procedure to create and modify the graphics using workflow process |
| 4 | Work with Layer and Group graphic objects | Demonstrate viewing and moving in between layers Demonstrate grouping objects | Layer and group in graphic object Viewing and moving in between layers Grouping objects |
| 5 | Achieve Goal Seek in a spreadsheet | Demonstrate how to achieve goal in spreadsheet data using Goal Seek | Purpose of Goal Seek How to achieve goal in spreadsheet data using Goal Seek |
| 6 | Analyze data with Logical and Lookup functions | Demonstrate the use of various logical and lookup functions and test the result | Syntax of logical and lookup functions Work with logical and lookup function |
| 7 | Insert and manage themes in a spreadsheet | Demonstrate the use of Themes in the spreadsheet Demonstrate how to Manage Themes in the spreadsheet Downloading and saving themes | Various themes to be used in the spreadsheet Manage themes in the spreadsheet Download and save themes |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|---|---|--|
| 8 | Create and use templates in a spreadsheet | Demonstrate how to use built-in template Demonstrate how to create, download and use the template in the spreadsheet | What is template How to use built-in template How to create and use template Downloading, saving and using the template |
| 9 | Update workbook properties | Demonstrate where the workbook properties exists and how to update it | Workbook properties How to update workbook properties |
| 10 | Create and edit macros | Demonstrate how to create, use and edit macros | What is macros How to create macros Editing macros |

| | |
|------------------------------|--|
| UNIT CODE & TITLE | IT-SDA-305: Digital Presentation (Advanced) |
| UNIT DESCRIPTOR | This unit develops the skills in digital presentation at advanced level. Student can learn and practice the advanced features of digital presentation. |
| DURATION | 30 Hours (Theory and Demonstration: 15 Hours, Practical Hands on: 15 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|------------------------------|---|--|
| 1 | Work with a design template | View and use default templates Demonstrate to Customize the template Demonstrate how to copy and use template from other presentation | Templates, default templates, using default templates, customization of templates |
| 2 | Use the slide master | Demonstrate how to work with slide mater Demonstrate how to preserve the slide master and use multiple themes | What is slide master, how to work with slide master Preserving the Slide Master Using Multiple Design Themes |
| 3 | Create headers and footers | Demonstrate how to insert header and footers in the presentation Demonstrate how to use various options in header and footer dialog box | What is headers and footers Header and footer dialog box |
| 4 | Work with the handout master | Demonstrate how to use handout master Demonstrate how to create handout master | What is handout master Creating handout master |
| 5 | Work with the notes master | Demonstrate how to use notes master Demonstrate how to create notes master | What is notes master Creating notes master |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|---------------------------------------|---|---|
| 6 | Save presentation in different format | Demonstrate how to save the presentation in various formats Compare the file size in various formats of presentation | Various options for saving presentation File formats and size in various formats |

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|------------------------------|--|
| UNIT CODE & TITLE | IT-SDA-306: E-mail Messaging (Advanced) |
| UNIT DESCRIPTOR | This unit develops the skills in Email Messaging at advanced level. Student can learn and practice the advanced features of Email messaging. |
| DURATION | 30 Hours (Theory and Demonstration: 15 Hours, Practical Hands on: 15 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|--|--|---|
| 1 | Change the message format | Demonstrate how to change the formatting of email-messaging | Various message formats in email-messaging Procedures to change the formatting of email-messaging |
| 2 | Create a distribution list or a Contact Group | Demonstrate how to create distribution list or contact group in email-messaging | What is distribution list or contact groups in email-messaging |
| 3 | Insert a hyperlink | Demonstrate how to insert hyperlink to the particular text in email-messaging | What is hyperlink Inserting hyperlink in email-messaging |
| 4 | Sort and filter messages using multiple criteria | Demonstrate how to sort and filter email using single or multiple criteria | What is sorting and filtering Sorting and filtering email-messaging using single and multiple criteria |
| 5 | Manage junk email | Demonstrate how to manage junk emails | What is junk email How to manage junk emails |
| 6 | Set workdays and time in a calendar | Demonstrate how to set workdays and time in a calendar | How to set workdays and time in a calendar in email-messaging |
| 7 | Display an additional time zone | Demonstrate how to create and display additional time zone using calendar software | Creating and displaying additional time zone using calendar software |
| 8 | Set availability options | Demonstrate how to set availability using options in email-messaging | Setting the availability using options over the Internet |
| 9 | Create calendar groups | Demonstrate how to set a calendar in groups | Setting the calendar in groups |
| 10 | Manage automatic meeting responses | Demonstrate how to configure email-messaging for automatic meeting | Configuration for automatic meeting responses |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|---------------------------------|---|--|
| | | responses | |
| 11 | Manually Modify a journal entry | Demonstrate how to create and modify journal entry manually | Create and modify manually journal entry |
| 12 | Reply to a task request | Demonstrate how to reply task request | Purpose of task request |

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|------------------------------|--|
| UNIT CODE & TITLE | IT-SDA-307: Computer Networks |
| UNIT DESCRIPTOR | This unit develops the knowledge and skills in understanding the computer networks and use the networking features in IT work environment. |
| DURATION | 40 Hours (Theory and Demonstration: 20 Hours, Practical Hands on: 20 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|---|--|---|
| 1 | Introduce with computer networking | Demonstrate the different types of computer networks and ways to form network | Types of networking Networking models Ways to form networking |
| 2 | Explore the OSI Model | Demonstrate diagrammatically the different OSI layer in a OSI Model | Different layers in OSI Model |
| 3 | Introduce with different network terminologies | Demonstrate the different networking terminologies by illustrations | Basic concepts and terminologies in networking |
| 4 | Networking topologies and access methods | Demonstrate graphically the different network topologies, access methods | Different networking topologies and access methods |
| 5 | Introduce with network hardware – Network Interface Card, Hub, Switches, Routers | Identify the different networking hardware devices and demonstrate its use in networking | Networking hardware – configuration and use |
| 6 | Introduce with various networking protocols | Demonstrate the use of different networking protocols | Different networking protocols |
| 7 | Introduce with server operating system | Demonstrate the features of various server OS | List and compare various server operating systems |
| 8 | Introduce with networking services - DHCP | Demonstrate the installation and configuration of DHCP | What is DHCP and DHCP process |
| 9 | Networking services – Name resolution, Net BIOS, WINS, DDNS, Terminal services and active directory | Install and configure networking services | Name resolution methods Net BIOS, WINS, DDNS, Terminal services and active directory |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|---------------------|---|---|
| 10 | Wireless networking | Demonstrate the installation and configuration of wireless networking | Introduce to wireless networking concept and features |
| 11 | Wireless security | Demonstrate how to establish wireless security | Wireless security concept and features |
| 12 | Wide Area Networks | Demonstrate the functioning of Wide Area Networks | Concept of Wide Area Network |

| UNIT CODE & TITLE | IT-SDA-307: Web Designing Part 1 |
|-------------------|---|
| UNIT DESCRIPTOR | This unit required develop the competency and web designing in HTML, CSS, XML. It develops the skills in developing and using the web pages in HTML, CSS, ASP, PHP etc. |
| DURATION | 40 Hours (Theory and Demonstration: 20 Hours, Practical Hands on: 20 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|--|--|---|
| 1 | Introduction to Web Design & HTML | Demonstrate the use of HTML for web page development | Introduction to web design tool HTML |
| 2 | Create web pages by using HTML basic tags | Demonstrate to develop web pages using HTML basic elements | HTML basic elements and attributes to develop web pages |
| 3 | Introduce with CSS | Use CSS in web development | Introduction to CSS |
| 4 | Introduce with XML & XHTML | Demonstrate the use of XML & XHTML in web development | Overview of XML & XHTML |
| 5 | Create web pages using JavaScript | Use Javascript for web development | Introduction to JavaScript Basics of JavaScript |
| 6 | Introduce with DHTML, Ajax and JQuery | Use DHTML, Ajax and JQuery for web development | Overview of DHTML, Ajax and JQuery |
| 7 | Introduce with Web server – IIS and Apache | Use web server in web development | Overview of IIS and Apache Web Server |
| 8 | Introduce ASP for web development | Use ASP for web development | Overview of ASP |
| 9 | Introduce PHP for web development | Use PHP for web development | Overview of PHP |

| UNIT CODE & TITLE | IT-SDA-308: Web Designing Part 2 |
|-------------------|---|
| UNIT DESCRIPTOR | This unit required develop the competency and web designing in implementing advanced features of web designing. It develops the skills in search engine optimization. |

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| DURATION | 40 Hours (Theory and Demonstration: 20 Hours, Practical Hands on: 20 Hours) |
|-----------------|---|

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|---|---|--|
| 1 | Introduc with various web development tools | Compare the various web development tools | Various web development tools |
| 2 | Create and test webpages | Create web pages and view it in the browser to see the desired output | Development and testing of web pages |
| 3 | Create website using templates & importing webpages | Create and test web pages using templates | Website templates Creating web pages by using templates |
| 4 | Create web pages using common HTML elements | Create web pages using common HTML elements | Common HTML elements - lists, formating text, use spell check and use find and replace |
| 5 | Work with tables and cells | Create tables in web pages | How to create tables in web pages |
| 6 | Work with images | Insert images in the web pages | How to insert and manipulate image in web page |
| 7 | Insert and work with hyperlinks | Insert hyper-links to the text in web page | How to insert hyper-links in web page |
| 8 | Insert and work with hyperlinks using images | Link images in the web page | How to link images using hyper-links |
| 9 | Insert and work with audio & video content | Insert audio and video content in the web site | How to insert audio and video content in the website |
| 10 | Working with frames, inline frames and layers | Create frames, inline frames, layers in web pages | Frames and layers in web pages |
| 11 | Insert Hover effect, meta elements & watermark | Assign hover effect, meta elements & watermark in web pages | What is Hover effect, meta elements & watermark |
| 12 | Create and work with forms | Create and insert forms in web pages | Forms in web pages |
| 13 | Work with CSS | Use CSS in web pages | What is CSS, use of CSS in webpages |
| 14 | Work with behaviors | Controlling the behaviors of web pages | What is the behaviors of web pages |
| 15 | Work with compatibility | Handle compatibility issues in web site | Compatibility issues of website |
| 16 | Work with code view, add-ins, snippets and page transitions | Work with code view, add-ins, snippets and page transitions | Code view, add-ins, snippets and page transitions |
| 17 | Work with dynamic web templates | Create and use dynamic web templates | Creating and using dynamic web templates |
| 18 | Search Engine Optimization | Optimize search engine | Search engine and its optimization |
| 19 | Work with Forms – advanced | Create forms and insert it in web page | Creating and using forms in web sites |
| 20 | Publish webpages or websites | Host the static and dynamic contents on the website and test for view | Hosting services and procedures, Hosting the static and dynamic contents on the web server |

COMPETENCY BASED CURRICULUM FOR NSQF LEVEL 4 (CLASS 12)

Sector: IT/ITES, Job Role: IT SERVICE DESK ATTENDANT

Objectives:

Upon completion of this course, students will be able to:

- Get familiar with the Computer System Fundamentals and Computer Organization
- Learn basic principles of using operating system Windows and Linux
- Access the Internet to search information
- Learn use e-mail for sending and receiving mails
- Learn basic word processing, spreadsheet and presentation skills with LibreOffice

Course Structure: This course (vocational qualification package) is a planned sequence of instructions consisting of the following modules, called as Units.

| Sn | Unit Code | Unit Title | Theory | Practical | Total |
|----|------------|---------------------------------|------------|------------|------------|
| 1 | IT-SDA-401 | Functional English (Advanced) | 30 | 10 | 40 |
| 2 | IT-SDA-402 | Word Processing (Advanced) | 20 | 20 | 40 |
| 3 | IT-SDA-403 | Spreadsheet (Advanced) | 20 | 20 | 40 |
| 4 | IT-SDA-404 | Digital Presentation (Advanced) | 20 | 20 | 40 |
| 5 | IT-SDA-405 | Email Messaging | 20 | 20 | 40 |
| 6 | IT-SDA-406 | Web Designing | 30 | 30 | 60 |
| 7 | IT-SDA-407 | Project/ OJT | 0 | 40 | 40 |
| | | Total Hours | 140 | 160 | 300 |

RELEVANT SKILLS (Generic)

- Reading skill
- Writing skill
- Communication skill
- Language skill
- Behavioral skill
- Observation
- Listing skill
- Analytical skill
- Presence of mind
- Helping
- Decision making
- Arranging
- Processing
- Presence of mind

Teaching and Training Methods: Theory with Demonstration and Practical Hands on

Location for Training: Classroom and Practical Laboratory

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|------------------------------|---|
| UNIT CODE & TITLE | IT-SDA-401: Functional English (More Advanced) |
| UNIT DESCRIPTOR | This unit covers the more advanced features of functional English, which is required in the IT/ IteS work environment in IT to communicate with clients and customers. It develops the skills for reading, writing and communication fluently in English. |
| DURATION | 40 Hours (Theory and Demonstration: 30 Hours, Practical Hands on: 10 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|--|--|--|
| 1 | Perform the job of a customer service representative | Describe the role of customer service representative Describe the skills required to perform the job of customer service representative | Duties of customer service representative Skills required to perform the job of customer service representative |
| 2 | Describe your job | Explain how to describe your job Use connectors and conjunctions | How to describe your job Connectors and conjunctions |
| 3 | Write a leave application | Explain how to write a leave applications Study the samples of leave applications | Format for writing leave application Examples of leave application |
| 4 | Being a good team player | Describe the qualities of good team player Perform the role of good team player in various situations | Qualities of good team player Role of good team player in various situations |
| 5 | Describe about one's company | Read the company profile Frame the sentences to describe your company | Company profile Pronouns used to describe your company |
| 6 | Introduce with Information Technology | Describe Information Technology Describe the use of IT in various areas List out IT tools and softwares | Definition of Information Technology Application of IT in various areas IT tools, hardware and software |
| 7 | Introduce with ITES Industry | Explain the meaning of ITES industry List out the various types of ITES industry Describe the work of various of ITES industry | ITES industry and its meaning Types of ITES industry Work of various of ITES industry |
| 8 | Communicate effectively | List out various communication media Frame the sentence for effective communication Communicate using various media | Communication media Effective communication Communication skills of various media |

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| 9 | Open and close a customer service call | Describe how to open and close a customer service call Frame the conversation to open a service call Frame the conversation to close a service call | Procedure to open and close a customer service call Types of conversation to open and close a service call Conversation to open and close a service call |
| 10 | Introduce with paraphrasing | Explain the term paraphrasing Paraphrase the original sentences Identify the active and passive voice | Paraphrasing Paraphrasing the sentences Active and passive voice |
| 11 | Verify the information | Explain the term "Verifying information" Read and interpret the varification process | Meaning of Verification of information Examples of verification process |
| 12 | Give direction to customer telephonically | Give proper direction to customer on various issues | Tips and directions on various issues |
| 13 | Customer handling | Identify customer's temprament Behave with customer as per desire Describe the tips to handle various types of customers | Customer temprament and choices Various types of customers Tips to handle various types of customers |
| 14 | Handle customer queries | Explain the process to handle customer queries Analyse the expected customer queries Provide the instance solution to customer queries and clarify the customer queries | Tips to handle customer queries Expected customer queries and possible solutions to the queries Clarification of customer queries |
| 15 | Follow call flow | Explain the meaning of call flow Explain the various terms in call flow plan Read and interpret the call flow chart | Meaning of call flow Various terms in call flow plan Call flow chart |
| 16 | Give and receive feedback | Explain the meaning and process of giving and receiving feedbak | Guidelines for giving feedback Guidelines for receiving feedback |
| 17 | Communication Skills | Describe the communication skills and its importance Describe the various elements of communication process Describe the communication process | Importance of communication skills Elements of communication process Communication process Types of communications |

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|----|----------------------------|---|--|
| | | Communicate with colleagues in workplace | Verbal and non verbal communication Communications in workplace |
| 18 | Effective Listening Skills | Describe the effective listening skills Describe active listening Check your listening skills by performing an experiment to listen from others | Meaning of effective listening skills Meaning of active listening Experiments to check listening skills |
| 19 | Non-Verbal Communication | Describe non-verbal communication List and explain the types of non-verbal communication Practice the non-verbal communication | Meaning of non-verbal communication Types of non-verbal communication How to communicate using body language and gesture |
| 20 | Workplace Communication | Describe the meaning and features of workplace communications Communicate properly at workplace | Meaning and features of workplace communications How to communicate properly at workplace |
| 21 | Interview Skills | Explain interview skills List out typical interview questions and practice to answer it | Interview skills Typical interview questions |

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| UNIT CODE & TITLE | IT-SDA-402: Word Processing (More Advanced) |
| UNIT DESCRIPTOR | This unit covers the more advanced features of word processing which is required by expert office assistant. It develops the skills in using advanced features of word processing. |
| DURATION | 40 Hours (Theory and Demonstration: 20 Hours, Practical Hands on: 20 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|--|--|--|
| 1 | Create own document templates and use them | Create a template in a document, save it with name, open & modify it Create the template from other template | What is template Procedure to create, save open modify a template in a document |
| 2 | Create and print envelopes | Insert envelop using envelop dialogue box in a document Save the document with envelop Modify, format and print the envelop by available options | What is envelop Procedure to insert envelop in a document, saving the document with envelop Modifying and formatting envelop Printing the envelop by print option |
| 3 | Create and print labels | Create label, format label, print label | What is labels |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|--|---|--|
| | | using available option | Procedure to create labels with different fields procedure to print the label |
| 4 | Use mail merge feature in word processing | Open a document, create a contact list, create a new document and enter text matter Generate and print the letters to the addresses in the contact list using mail merge feature | What is mail merge requirement for mail merge procedure to create and print the letter to different addresses using mail merge feature |
| 5 | Create and use macros to automate tasks | Create the macros using the available options use the created macros by using available option | What is macros procedure to create macros to automate the task procedure to use macros |
| 6 | Link word documents to data stored in spreadsheets | Create the data record in the spreadsheets Create the new document and link the spreadsheet data with the document using available options | Procedure to link the data stored in the spreadsheets |
| 7 | Send a document outline to a presentation | Create a presentation from a document using available options | Procedure to create a presentation from a document |
| 8 | Prepare a document for review | Create a document with some text enable the tracking and correct the document in review mode | What is reviewing a document procedure to review a document |
| 9 | Track changes, review changes and include comments in a document | Insert comments, delete comments, review changes, use filters and modify mark of appearance using available option | Procedure to track changes review changes in a document |
| 10 | Compare and Merge document | Create the two documents compare and merge them using available option | Procedure to compare and merge the document |

| UNIT CODE & TITLE | IT-SDA-403: Spreadsheet (More Advanced) | | |
|------------------------------|--|--|--|
| UNIT DESCRIPTOR | This unit covers the more advanced features of spreadsheet which is required by expert office assistant. It develops the skills in using advanced features of spreadsheet. | | |
| DURATION | 40 Hours (Theory and Demonstration: 20 Hours, Practical Hands on: 20 Hours) | | |
| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
| 1 | Create and use hyperlinks | Create a spreadsheet assign the website address and hyper-link the | Procedure to create a hyper-link to a website from spreadsheet, create |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|----|--|---|--|
| | | <p>website to the spreadsheet</p> <p>create custom hyper-link</p> <p>link data from another workbook</p> | <p>hyper-link to the existing, new document, ccreate custom hyper-link</p> <p>procedure to link data from another workbook</p> |
| 2 | Analyze data using pivot tables and pivot charts | <p>Create a spreadsheet with sample data</p> <p>Create the pivot table from the spreadsheet data using available options</p> | <p>Explain the purpose of Pivot Table</p> <p>Explain the procedure to create pivot table from a sample data</p> |
| 3 | Create and use pivot charts | <p>Create a spreadsheet with sample data with 4-5 fields and 4-5 records</p> <p>Create a pivot chart from the spreadsheet data</p> | <p>What is pivot chart</p> <p>Procedure to create pivot chart from the spreadsheet data</p> <p>How to use pivot chart</p> |
| 4 | Use slicers to analyze data | Create pivot table and apply slicer to analyse data using the available options | <p>Explain the purpose of Filter Slicers.</p> <p>Explain the procedure to apply slicers to a sample data</p> |
| 6 | Protect spreadsheet and add comments to cells | <p>Create a spreadsheet, enter data to it</p> <p>Protect the cells that do not require editing</p> <p>Try to change the data in the protected cells and verify that data do not gets changed</p> <p>Protect the spreadsheet by a password and verify that it does not open without password</p> | <p>What is protecting a spreadsheet,</p> <p>Explain the procedure to protect a spreadsheet or a specific cell by password</p> |
| 7 | Merge workbooks | <p>Create a spreadsheet with some fields, copy it to another sheet</p> <p>Fill up the 2 data records in the first sheet and 3 data records in the second sheet, Merge these two sheets with and verify that the merged sheet contains all the 5 data record from first and second sheet</p> | <p>What is merging of workbook,</p> <p>Explain the procedure to merge workbooks</p> |
| 8 | Use digital signature in a spreadsheet | <p>Acquire the digital signature from the provider of digital certificates, install it,</p> <p>Create a spreadsheet and assign the digital signature to it by available options</p> | <p>Concept of digital signature</p> <p>Procedure to apply digital signature to a spreadsheet</p> |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|--------------------------------|--|---|
| 9 | Restrict access to spreadsheet | Create the spreadsheet and restrict the print access to others | Procedure to protect spreadsheet from being copied or printed when exporting as PDF |
| 10 | Share a workbook | Create a spreadsheet and assign the option to share it, Allow to change the data in the spreadsheet by others and verify the result | Procedure to share a workbook |

| UNIT CODE & TITLE | IT-SDA-404: Digital Presentation (More Advanced) |
|------------------------------|--|
| UNIT DESCRIPTOR | This unit covers the more advanced features of digital presentation which is required by expert office assistant. It develops the skills in using advanced features of digital presentation. |
| DURATION | 40 Hours (Theory and Demonstration: 20 Hours, Practical Hands on: 20 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|--|--|--|
| 1 | Use SmartArt graphics in presentation | Create a presentation and use appropriate smartArt graphics to illustrate the step by step process | What is smartArt graphics, how to use it in presnetation |
| 2 | Use multimedia elements in presentation | Include the multimedia element in the presentation by the relevant procedure | What is multimedia and how to use it in presentation |
| 3 | Customize slide components using animations | Create a presentation with text and objects Animate the text and objects in the presentation | What is animation Procedure to animate text and objects in a presentation |
| 4 | Customize slide show | Creae a prentation with 7-8 slides Create a custom slide show with available options | Procedure to creat a custom slide show |
| 5 | Annotate presentaion | Create a presentation and annonate it using the available options | Procedure to annonate a presentation using callouts |
| 6 | Use presenter view | Configure a presentation to run for audience on another display medium | Procedure to to configure the slide show to display presentation on another monitor |
| 7 | Configure a slide show to play automatically | Congigure a presentation to advance the slide automatically after duration of 5 sec. As well as advance each slide after the the varied duration required to read that slide automatically | Procedure to advance slides automatically afer a specific duration as well as to advance each slide with a custom timing |

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|------------------------------|--|
| UNIT CODE & TITLE | IT-SDA-405: Email Messaging (More Advanced) |
| UNIT DESCRIPTOR | This unit covers the more advanced features of email messaging which is required by expert office assistant. It develops the skills in using advanced features of email messaging. |
| DURATION | 40 Hours (Theory and Demonstration: 20 Hours, Practical Hands on: 20 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|--|---|---|
| 1 | Send calendar information in email message | Schedule the events in calendar and send this calendar in email to others | What is calendar, how to send calendar information in email |
| 2 | Create and modify signature | Create a signature or vCard and allow it to send with all outgoing messages by setting the available options of email messaging | What is signature in email messaging Procedure to include signature and vCard for outgoing message |
| 3 | Configure email security settings | Configure the email security by available options Set the default view of message body to plain text and configure to move junk mails to junk folder | What is email security and what are the security setting options for email Explain the ways to keep email secure |
| 4 | Organise and group emails in appropriate folders | Create different folders for different types of incoming mails Move the mails in different folders | Purpose, procedure and criteria for grouping emails |
| 5 | Manage data files | Take backups of data files of email messaging software using available options in that software | Purpose and procedure of managing data files in email messaging |

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|------------------------------|--|
| UNIT CODE & TITLE | IT-SDA-406: Web Design and Development |
| UNIT DESCRIPTOR | This unit covers the advanced features of web design and development. It develops the skills in developing and deploying web pages and web sites by using CMS. |
| DURATION | 60 Hours (Theory and Demonstration: 30 Hours, Practical Hands on: 30 Hours) |

| Sn | LEARNING OUTCOME | PERFORMANCE CRITERIA | RELEVANT KNOWLEDGE |
|-----------|--------------------------------|---|---|
| 1 | Introduce with web designing | Introducing popular HTML editors and advantages of HTML editors | HTML Editors Advantages HTML editors |
| 2 | Create web pages and web sites | Create a new website and webpages using HTML basic tags View the web page in the web browser | Concept of web page & site Creating a new web site and web pages |

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|----|--|---|--|
| | | | HTML for creating, saving and viewing webpage |
| 3 | Create and import websites using templates | Create a website by using built-in template | Template and its purposes Options to create and import website by using templates |
| 4 | Create web pages using common HTML elements | Create web pages using common HTML elements such as font face, size, alignment, format, list etc. | Common HTML elements, its syntax and use How to use these common elements to build web pages |
| 5 | Create webpages with tables, cells and background images | Create tables and include background image using HTML Apply HTML tags for splitting, merging, row span, column span | Creating tables and using background images in cell using HTML HTML tags for table properties – split, merge, row span, column span |
| 6 | Insert and manipulate images in the web page | Create a web page by inserting various types of image files and implement the different image properties | Different types of images, their properties and criteria to manipulate, How to insert and manipulate the images in a web page |
| 7 | Create hyperlink to other websites, web pages within the web site and to the email addresses | Create web page by providing hyperlinks to the other website, hyperlink to the webpage within the website and hyperlink to the e-mail address | What is hyperlink, advantages of providing hyperlinks, ways and tags to give a hyperlink Hyperlink to various components |
| 8 | Create hyperlinks using images, interactive buttons and use hotspots | Create web page by providing hyperlink to the webpage from the image or interactive buttons | How to create hyperlinks using images, interactive buttons and how to use hotspots in HTML |
| 9 | Insert audio, video contents and flash or movies in a web page | Create a web page by adding audio, video clips and flash or movies of compatible file types in a web page using HTML tag | How to include audio, video and flash or movies in a web pages using HTML |
| 10 | Create and use frames, Inline frames and layers in a web page | Creating web page using Frames, Inline frames and Layers Use properties of frames and elements to manage the layers | Concept of frames, inline frames and layers and their properties Procedure and HTML tags to create and use frames, inline frames and layers in a web page |
| 11 | Use Hover Effect, Meta Elements and Watermark in a webpage | Create a web page with hover effect, meta elements and watermark | Hover effect, Meta elements and Watermark Procedure to assign hover effect, meta elements and watermark to web page |
| 12 | Create Forms in the | Create webpage having multiple forms | Describe why forms are essential and |

| | | | |
|----|---|--|--|
| | web pages | | how to create forms |
| 13 | Create and use Style Sheets in web site | Create webpage by including style sheets and Providing/ removing links to the style sheets By defining various elements to style sheets | CSS and its use in the website How to create and use CSS in a website |
| 14 | Work with behaviors | Create a webpage by applying different behaviors such as onclick, mouse over, redirect | What are Behaviors, different behaviors and how it is used in the website |
| 15 | Check compatibility of a website with browsers | Checking compatibility of website with different web browsers | What is browser compatibility and how it is achieved |
| 16 | Work with code view, add-ins, snippets and page transitions | Creating website having multiple snippets and also having various types of page transitions | Code view, add-ins, snippets and page transitions, its purpose How to add Snippets and Page Transitions |
| 17 | Create and edit dynamic web templates | Create, use and edit dynamic web templates in a web site Detach dynamic web template from site | Dynamic web templates and its features How to create, use and edit dynamic web templates |
| 18 | Use SEO checker to optimize the search engine | Optimize the search engine using SEO checker | Concept of search engine optimizer How to use SEO checker to optimize the search engine |
| 19 | Create forms to save results in database | Create forms to interact with web server and save the result in database | Advanced features of forms How to interact with web server |
| 20 | Optimize web pages, HTML code to publish the website | Perform all the tasks before publishing the website such as optimize web pages, HTML code, fix errors and take back ups | Task to be carried out for publishing website How to optimize web pages and HTML code |
| 21 | Introduce with authoring tools used to develop websites | Download the different authoring tools and try to use it for web development | Different authoring tools, their purpose, features and use in the website |
| 22 | Download and use CSS templates | Download and use the CSS template for designing a website | Purpose and features of CSS template How to use it in a website |
| 23 | Introduce, download and use common web applications & CMS | Explore the appropriate web applications and CMS, download it, install it and explore its feature in the web development | Information about different web applications & CMS under different platform How to get it install it and use it |

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|----|--|---|---|
| 24 | Introduce with web application development | Explore the software requirement in open source to develop web applications | What is web applications, client server model What are the software requirement to develop web application |
|----|--|---|---|

ASSESSMENT GUIDE

Assessment is a process used for determining an individual's progress or level of mastery/competence in an occupational area. It may be formative (continuous) and/or summative (final). It is a process of collecting evidence and making judgement about the extent to which a person demonstrates the knowledge and skills set out in the standards or learning outcomes of a unit of competency. Assessment should be done on the basis of information or evidence about the individual's ability against clearly stated objectives or standards. A diversity of assessment methods is required to achieve the multiple purposes and to satisfy the requirements of competency based assessment. Appropriate evidence is to be collected from activities that can be clearly related to the Units of Competency. It should cover all the elements and performance criteria/indicators in the competency standards. Student's achievements should be assessed by using the following methods of assessment.

| Sn | Assessments Method | Weightage | Evaluator |
|--------------|---------------------|-----------|-----------------------|
| 1. | Written test | 30 Marks | Teacher |
| 2. | Practical test | 30 Marks | Certified Assessor # |
| 3. | Oral test/viva voce | 10 Marks | Teacher/Ext. Examiner |
| 4. | Portfolio | 10 Marks | Teacher |
| 5. | Project | 10 Marks | Teacher/Trainer |
| 6. | Direct Observation | 10 Marks | Teacher/Trainer |
| Total | 100 Marks | | |

Assessors will be certified by the State Education Board.

- Written test:** It allows candidates to demonstrate that they have the knowledge and understanding of a given topic.
- Practical test:** It allows candidates to demonstrate application of skills in simulated or real work conditions against competency standards (skill and academic standards).
- Oral test/viva voce:** It allows candidates to demonstrate communication skills and content knowledge. Audio or video recording can be done at the time of oral test or viva voce.
- Portfolio:** It is a compilation of documents that supports the candidate's claim of competence that was acquired from prior learning and experience. Documents (including photo's, newspaper articles, reports, etc.) of practical experience in the workplace or the community and photographs of the products prepared by the candidates related to the units of competency should be included in the portfolio.
- Project:** Projects (individual or group projects) are a great way to assess the practice skills on a deadline, but these should be given on the basis of the capability of the individual to perform the tasks or activities involved in the project. Projects should be discussed in the class and the teacher should periodically monitor the progress of the project and provide feedback for improvement and innovation.
- Direct Observation –** Direct observation requires a considerable degree of commitment from the observer and those being observed. Employability skills evaluation listed below in the table should be evaluated through direct observation by the teacher/trainer and appropriate records should be maintained for transparency in evaluation.

| Employability Skill Area | Sn | Competencies and Performance Standards | Y | N |
|---------------------------------|-----------|---|----------|----------|
| Communication | 1. | Questions appropriately | | |
| | 2. | Writes clearly and legibly | | |
| | 3. | Demonstrates good listening and responding skills | | |
| | 4. | Informs about the absence and reasons of absence | | |
| Responsibility | 5. | Organizes work | | |
| | 6. | Manages time effectively and efficiently | | |
| | 7. | Complete assignments timely | | |
| | 8. | Displays care for tools and equipment | | |
| | 9. | Accepts responsibility pleasantly | | |

Y=Competent = 0.5 marks, N=Not yet competent = 0 marks

LIST OF TOOLS, EQUIPMENT AND MATERIALS

The list of tools, equipment and materials given below is suggestive and an exhaustive list should be prepared by the teacher/trainer. Only basic tools, equipment and accessories should be procured by the Institution for performance of routine tasks or activities by the students.

I. Computer Hardware, Software and Peripherals

HARDWARE

- Computer system with Latest configuration
- Laptop and Notebook
- Printers – Laser Printer, Inkjet Printer, Dot Matrix Printer
- Spare memory, Processor, cables, connectors, power pack, battery, NIC cards.
- Web Camera
- External Hard disk drives.
- Different types, makes and capacities of HDD in IDE/ATA and SCSI.
- Flash/Thumb/Pen drives of different makes and capacities.
- Different types, makes and sizes of monitors for dismantling, demonstration and reassembly
- Different types of Keyboards including wireless keyboards.
- Different types of Mice including wireless mouse.

SOFTWARE

- Operating systems – full and legal versions of Windows
- Operating System – Linux and Free and Open Source Softwares

TOOLS

- Tool kit
- Cable connectors
- Crimping tools
- RJ45 connectors and Crimping tool.
- Vacuum cleaner
- Air blower

OTHER DEVICES

- UPS 5 KVA
- Multimedia Projector
- External HDD
- DVD writer
- UTP 5/5e/6 cable.

FURNITURE

- Computer maintenance table
- Lab stools/chairs
- Computer tables

CONSUMABLES

- Paper
- Printer Cartridges

TEACHER'S QUALIFICATIONS

Qualification, competencies and other requirements for appointment of Graduate Teacher (IT/ITeS) on contractual basis should be as follows:

Qualifications: Master of Science degree in Information Technology/ Computer Science/ Computer Application OR Bachelor of Engineering in Information Technology/ Computer Science/ Computer Application from any UGC recognized University OR DOEACC 'B' level

Desirable: 1 year experience in industry

Minimum Competencies: Effective communication skills (oral and written) , Basic computing skills.

Age Limit:18-37 years, relaxation to be provided as per Govt. Rules.

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