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DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY (DICT) EXAMINATION

SYLLABUS

(ADVANCE COPY)

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SUMMARY OF THE DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY (DICT) EXAMINATION SYLLABUS

LEVEL I

Paper No. 1	Introduction to Computing
Paper No. 2	Computer Mathematics
Paper No. 3	Entrepreneurship and Communication
Paper No. 4	Computer Applications Practical I

LEVEL II

Paper No. 5	Computer Networking
Paper No. 6	Internet Skills
Paper No. 7	Computer Support and Maintenance
Paper No. 8	Programming Concepts

LEVEL III

Paper No. 9	Principles of Web Development
Paper No. 10	Foundations of Accounting
Paper No.11	Information Systems Project Skills
Paper No.12	Computer Applications Practical II

PAPER NO. 1 INTRODUCTION TO COMPUTING

GENERAL OBJECTIVE
This paper is intended to equip the candidate with the knowledge, skills and attitude that will enable him/her to apply computing skills in an organisation

1.0 LEARNING OUTCOMES

A candidate who passes this paper should be able to:

- Select appropriate computer hardware and software
- Apply data processing principles
- Demonstrate competence in basic computer operations
- Select appropriate information systems in an entity
- Control information systems threats

CONTENT

1.1 Introduction to information communication technology (ICT)
- Introduction to computers
- Evolution of computers
- Elements of a computer system
- Uses of computer systems
- Impact of ICT in society
- Careers in ICT

1.2 Computer hardware
- Components of a computer system
- Input/output devices
- Storage devices
- Processing unit
- Communication devices
- Selection of computer hardware

1.3 Computer software
- Systems software
- Application software
- User interface
- Selection of computer software

1.4 Basic data processing
- Introduction to data processing
- Data processing cycle
- Data hierarchy
- File organisation and access
- Data collection methods
- Methods of data processing
- Data processing systems
- Data processing modes

1.5 Introduction to information systems
- Information system concepts
- Components of an information system
- Information centres

Diploma in Information Communication Technology (DICT) Examination Syllabus

1.6 Information systems in an organisation
- Definition of an organisation
- Organisation levels
- Types of information systems
- Roles of information systems in an organisation

1.7 Information system security
- Information system threats and controls
- Information system integrity

1.8 Emerging issues and trends

PAPER NO. 2 COMPUTER MATHEMATICS

GENERAL OBJECTIVE

This paper is intended to equip the candidate with the knowledge, skills and attitude that will enable him/her to apply computer mathematical approaches to solve business problems

2.0 **LEARNING OUTCOMES**

A candidate who passes this paper should be able to:

- Perform binary arithmetic operations
- Draw simple deductions and conclusions from given data
- Use matrix algebra to solve real life problems
- Solve basic linear equations
- Relate probability and statistics to computing
- Apply set theory in solving computing problems
- Solve computer related problems using logic and truth table concepts.

CONTENT

2.1 **Data representation and number systems**

- Computer codes: BCD, ASCII, EBCDIC
- Bit, byte, nibble, word
- Number systems; Decimal numbers, Binary numbers, Octal numbers, Hexadecimal numbers
- Number conversions

2.2 **Binary arithmetic**

- Addition, subtraction
- Multiplication, division
- Complements

2.3 **Set theory**

- Introduction; definitions and purpose
- Types of sets: Universal set, empty/null set, sub-sets, finite, infinite, power sets, partition
- Description of sets; enumeration method and descriptive method
- Operations: Union and intersection, complements, difference
- Duality
- Sets and elements
- Venn diagrams
- Ordered pairs, product sets, relations

2.4 **Logic and truth tables**

- Introduction
- Conjunction and disjunction
- Negation
- Proportions and truth tables
- Tautology and contradiction
- Logical equivalence

2.5 **Elementary matrices**

- Introduction to matrices: definitions and importance of matrices
- Matrix addition and subtraction
- Dimensions/order of matrices

- Types of matrices
- Identity matrix
- Matrix operations: addition, subtraction, multiplication, inversion of 2x2 matrices
- Applications of matrices to business problems

2.6 Linear equations

- Linear equations in one unknown
- System of two linear equations in two unknowns

2.7 Elementary statistics

- Sources of data: primary and secondary
- Methods of collecting primary data: observation, interviews, questionnaires
- Sampling methods; probabilistic and non-probabilistic
- Data presentation: frequency tables and histograms
- Measures of central tendency: arithmetic mean, mode, median
- Measures of dispersion: range, mean deviation, standard deviation, variance, coefficient of variation

2.8 Introduction to probability

- Definitions: events, outcome, experiment, sample space
- Types of events: simple, elementary, mutually exclusive, mutually inclusive, dependent and independent
- Laws of probability: addition and multiplication
- Basic probability trees
- Finite probability spaces and conditional probability

2.9 Emerging issues and trends

PAPER NO.3 ENTREPRENEURSHIP AND COMMUNICATION

GENERAL OBJECTIVE

This paper is intended to equip the candidate with knowledge, skills and attitudes that will enable him/her to apply entrepreneurial and communication skills in business and other environments

3.0 LEARNING OUTCOMES
A candidate who passes this paper should be able to:
- Identify and screen viable business opportunities
- Develop a business plan
- Demonstrate entrepreneurial orientation
- Communicate effectively in a business environment
- Apply entrepreneurial competencies in response to the emerging trends in the business environment

CONTENT
3.1 Introduction to entrepreneurship
- Definition of entrepreneurship
- Rationale for entrepreneurship
- Entrepreneurial decision process
- Entrepreneurial development
- Contribution to economic development

3.2 Entrepreneurship orientation
- Independence and need for achievement
- Individual characteristics of entrepreneurs
- Creativity and innovation
- Decision making
- Risk management
- Time management
- Coping with competition

3.3 Entrepreneurial opportunity and development
- Methods of generating ideas
- Qualities of good business opportunities
- Evaluating business opportunities
- Feasibility analysis
- Business incubation
- Intellectual properties, copyrights trademarks and patents

3.4 Business plan
- Purpose
- Format
- Description of the business
- The market and marketing plan
- Operations and production plan
- The human resources plan
- The financial plan
- Launching the new venture

3.5 Strategies for enterprise growth
- Penetration strategy
- Market development strategy
- Product development strategy

Diploma in Information Communication Technology (DICT) Examination Syllabus

- Franchising
- Joint ventures
- Mergers and acquisitions
- Going public

3.6 Entrepreneurship and technology
- Internet and e-commerce
- The enterprise website
- Globalisation
- Business outsourcing
- Techpreneurs
- Electronic and mobile money transfers
- Business networking
- Crowd funding and crowd sourcing

3.7 Nature of business communication
- Meaning of communication
- Purposes of business communication
- Internal and external communication
- The communication process
- Methods of communication
- Communication systems and networks
- Principles of effective communication
- Barriers to effective communication

3.8 Written communication
- Rules of effective writing
- Business correspondence
- Reports
- Memorandum
- Proposal writing
- Forms and questionnaire design
- Circulars and newsletters
- Notices and advertisements
- Publicity materials
- Press releases
- Graphic communication

3.9 Oral and non-verbal communication
- Oral communication in business
- Effective listening
- Interviews
- Non-verbal communication
- Interpersonal relationships
- Presentations skills

3.10 Meetings
- Notice
- Agenda
- Role of the chairperson
- Role of the secretary
- Conduct of meetings
- Minutes

3.11 Information technology and communication
- The internet
- Teleconferencing
- Wireless technologies
- Electronic postal services

3.12 **Ethics and integrity in business communication**
- Concept of ethics and integrity
- Significance of ethical communication
- Factors influencing ethical communication
- Ethical dilemmas in communication
- Guidelines to handle communication ethics dilemmas
- Business ethics in communication

3.13 Emerging issues and trends

PAPER NO. 4 COMPUTER APPLICATIONS PRACTICAL I

GENERAL OBJECTIVE

This paper is intended to equip the candidate with knowledge, skills and attitudes that will enable him/her to perform basic computer operations

4.0   LEARNING OUTCOMES

A candidate who passes this paper should be able to:

- Use an operating system for file management
- Use a word processor
- Make a presentation using appropriate software
- Install software in a computer
- Use a computer to manage day to day business operations

CONTENT

4.1   Introduction to operating systems

- Definition
- Types of operating systems
- Types of computer interfaces
- WIMP
- Selection of an operating system

4.2   Computer start up/booting process

- Definition
- Types of booting
- Boot up process
- BIOS
- Making bootable devices

4.3   Basic operations

- Starting up the computer
- Managing files and folders
- Plugging in, preparing and ejecting storage devices
- Loading applications

4.4   Software installation

- Common operations performed during installation
- Types of installations
- Installers
- Common types of installers
- Uninstalling software

4.5   Keyboard manipulation and mouse skills

- Types of keyboards
- Keyboard layout
- Typing skills
- Keyboard ergonomics
- Mouse skills

4.6   Word Processing software

- Using features of a word processor
- Creating and retrieving existing documents
- Setting page setup features
- Using toolbars
- Formatting and editing text

Diploma in Information Communication Technology (DICT) Examination Syllabus

- Manipulating a document using shortcut keys
- Creating and formatting tables
- Creating and formatting images and drawing
- Inserting and editing headers and footers
- Proofreading a document
- Using mail merge tool
- Tracking changes and comments
- Converting documents
- Linking and embedding
- Creating table of content, list of figures and list of tables
- Saving a document
- Automating simple tasks
- Printing a document

4.7 Presentation software
- Using features of a presentation program
- Inserting a slide, typing and formatting text in a slide
- Importing and exporting content
- Working with master slides and templates
- Editing slide content
- Drawing and formatting various objects
- Working with graphics and charts
- Inserting and formatting images
- Animation effects
- Reviewing presentation
- Saving, copying and deleting slides
- Presentation views
- Automating simple tasks
- Printing handouts and slides

4.8 Emerging issues and trends

PAPER NO. 5 COMPUTER NETWORKING

GENERAL OBJECTIVE

This paper is intended to equip the candidate with knowledge, skills and attitudes that will enable him/her to network computers and work in a networked environment

5.0   LEARNING OUTCOMES

A candidate who passes this paper should be able to:

- Identify hardware and software network components

- Configure various network topologies

- Select appropriate transmission media

- Apply various protocols in computer networking

CONTENT

5.1   Introduction to computer networks
- Definitions of networking terms and concepts
- Advantages and disadvantages of computer networks

5.2   Networking components
- Hardware
- Software
- Media
- Server/Clients

5.3   Setting up a network
- Introduction to protocols
- Tools used in networking
- Cable preparation
- Connecting computers to the switch/hub
- Testing connectivity
- Configuring shared network resources
- Administering user accounts
- Basic network troubleshooting

5.4   Internetworking hardware
- Modems
- Switches
- Routers
- Network cards
- Repeaters
- Bridges
- Gateway

5.5   Networking software
- Types of networking software
- Functions of networking software
- Advantages and disadvantages of networking software
- Networking operating system and desktop operating system

5.6 **Transmission media**
- Bounded media
- Wireless media
- Broadband wireless technology

5.7 **Networking topologies**
- Introduction to protocols
- Physical topologies
- Logical topologies (access methods)
- Configuring TCP/IP and other protocols

5.8 **Types of computer networks**
- Personal area network (PAN)
- Local area network (LAN)
- Metropolitan area network (MAN)
- Wide area network (WAN)
- The Internet

5.9 **Networking protocol**
- Introduction to OSI model
- Basics of transmission control protocol/internet protocol (TCP/IP)

5.10 **Emerging issues and trends**

PAPER NO. 6 INTERNET SKILLS

GENERAL OBJECTIVE

This paper is intended to equip the candidate with knowledge, skills and attitudes that will enable him/her to apply internet technology in an organisation

6.0 LEARNING OUTCOMES

A candidate who passes this paper should be able to:

- Use various Internet services
- Specify the requirements for Internet connectivity
- Identify Internet security threats and their controls
- Assess the impact of Internet in society
- Configure internet protocols
- Use internet search engines

CONTENT

6.1 Introduction to the Internet
- Definition of the Internet
- Development of the Internet
- Internet uses and benefits

6.2 Internet services
- World wide web (www)
- Electronic mail
- File transfer protocol (FTP)
- Chat
- Telnet
- Newsgroups
- Gopher
- Blogs
- Voice and video teleconferencing
- Instant messaging
- Social networking

6.3 Cloud computing
- Definition
- Classification of cloud computing
- Advantages and disadvantages of cloud computing

6.4 Internet connectivity
- Data terminal equipment (DTE)
- Servers, clients and ports
- Internet service providers (ISPs)
- Domain name system (DNS) and DNS server
- Types of accounts: Internet PP & SLIP accounts, UNIX
- Cable connections
- Satellite and wireless connections

6.5 World Wide Web
- Generations
- World wide web components
  - Structural components
  - Semantic components
- Uniform resource locators (URLs)
- Web browsers
- Web servers: apache, Internet information server (IIS)
- Hosting a website on a local machine
- Content management

6.6 Client/server architecture
- Two tier client/server architecture
- Three tier client/server architecture

6.7 Protocols
- Transmission control protocol/Internet protocol (TCP/IP)
- Hypertext transfer protocol (HTTP)
- File transfer protocol (FTP)
- e-mail protocols: SMPT, IMAP, POP3

6.8 Information searching
- Search engines
- Navigation

6.9 Internet security
- Internet security threats
- Client security
- Server security
- Data security
- Communication media

6.10 Internet groups and corporations
- International
- Regional
- National

6.11 Impact of Internet in society
- Social issues
- Ethical issues
- Legal issues
- Professional issues
- Cultural issues

6.12 Emerging issues and trends

PAPER NO. 7 COMPUTER SUPPORT AND MAINTENANCE

GENERAL OBJECTIVE

This paper is intended to equip the candidate with the knowledge, skills and attitude that will enable him/her to support and maintain computers in an organisation

7.0   LEARNING OUTCOMES

A candidate who passes this paper should be able to:

- Operate computer hardware and software
- Install and uninstall operating systems and application programs
- Troubleshoot computer hardware
- Disassemble and reassemble a computer system
- Identify and replace faulty components
- Undertake effective selection and acquisition of computer systems
- Back-up data and information

CONTENT

7.1   Basic computer concepts
- Microcomputer electronic components
- The physics of electronics
- The maintenance tools

7.2   Power supply
- Overview of power supply
- Power supply problems
- Power supply protection devices
- Using power supply devices

7.3   Motherboards
- Computer cases
- Types of motherboards
- Installing a motherboard
- Motherboard components
- Using expansion slots and connectors

7.4   Microprocessors
- Microprocessor overview
- Types of processors
- Processor modes
- Selecting and upgrading a processor

7.5   Memory
- Memory characteristics
- Memory types and packages
- Memory mapping
- Factors to consider when selecting and upgrading memory

7.6   Disks and drives
- Disk types
- Disk drives
- Disk organisation
- Disk management
- Selecting disk drives
- Maintenance of disks and disk drives

7.7 Display technology
- Display adapters
- Care and maintenance
- Performance measures
- Troubleshooting

7.8 Computer system assembly and disassembly
- Selection and compatibility issues
- Hardware components installation
- Computer assembling, disassembling and reassembling
- Upgrading a computer
- Electronic waste management

7.9 Hardware and software installation
- Installation concepts
- Installing peripheral devices
- Installing operating systems
- Installing application programs
- Installing and upgrading utility software

7.10 Fault finding and troubleshooting
- Fault finding principles
- Common equipment faults
- Hardware and software diagnostics
- Uninstalling and reinstalling software

7.11 Computer support
- On-line support
  - Help desk management
  - Health and safety
- Safe computer user practices
- Planning and providing staff training

7.12 System selection and acquisition
- Selection process
- Analysing requirements
- Evaluation and testing
- Equipments costing
- Warranties
- Training costs
- Cost benefits analysis
- Purchasing
- Service level agreements
- Technical checklist

7.13 Computer security
- Virus protection
- Firewalls
- Computer backups

7.14 Emerging issues and trends

PAPER NO. 8 PROGRAMMING CONCEPTS

GENERAL OBJECTIVE

This paper is intended to equip the candidate with the knowledge, skills and attitude that will enable him/her develop basic computer programs

8.0   LEARNING OUTCOMES

A candidate who passes this paper should be able to:

- Apply programming concepts in practice
- Write an elementary code using Visual Basic programming language
- Test and debug errors in a computer program
- Write a simple documentation (user manual) to support user programs.

CONTENT

8.1   Introduction
- Programming language
- Programs
- Types of programming languages

8.2   Generations of programming languages
- Machine language
- Assembly language
- Third generation languages
- High level languages
- Fourth generation languages
- Object oriented methods

8.3   Programming approaches
- Imperative programming
- Logic programming
- Structured programming
- Procedural programming
- Unstructured programming
- Functional programming
- Object oriented programming

8.4   Language translation programs
- Assemblers
- Compilers
- Interpreters
- Bugs/errors

8.5   Program development steps
- Problem statement/definition
- Analysing a problem
- Program development
- Coding
- Testing
- Documentation
- Maintenance

8.6   Programming tools
- Algorithms
- Flowcharts

- Pseudocodes
- Using algorithms, flowcharts and pseudocodes with control statements

8.7 Visual Basic programming language
- Data types
- Variables and constants (global and local)
- Statements
- Assignments
- Expressions and operators (comparison, logical, bitwise)
- Control structures
- Creating user interface
- Developing a case program

8.8 Emerging issues and trends

PAPER NO.9 PRINCIPLES OF WEB DEVELOPMENT

GENERAL OBJECTIVE

This paper is intended to equip the candidate with the knowledge, skills and attitude that will enable him/her to develop a website

9.0 LEARNING OUTCOMES

A candidate who passes this paper should be able to:

- Write a basic HTML code
- Use graphics and animations to enrich web pages
- Create functional sites with hyperlinks, tables, forms and databases
- Use scripts to create dynamic web pages
- Use Dream Weaver software tool in designing web pages.

CONTENT

9.1 Introduction to web development

- Web development concepts
- Introduction to mark-up language
- Overview of HTML
- Basic tags and corresponding attributes

9.2 Objects, graphics and animations

- Creating and modifying objects
- Complex objects on a single layer
- Objects on multiple layers
- Using non flash graphics
- Animations with motion and shape tweening
- More complex animation tasks
- Interactivity with frame action and buttons

9.3 Pictures, effects, images and colouring

- Incorporating colour techniques
- Placing type in an image
- Understanding layers
- Using layers to refine images
- Creating special effects

9.4 Web development platforms

- Paragraphs and layouts
- Working with images, links, tables, forms and URLs
- Using frames
- Layers and positioning
- Behaviour modifications
- Drawing timelines and customising web development tools
- Plug-ins and active content
- Tools for automating web pages
- Setting up a local site
- Managing web sites

Diploma in Information Communication Technology (DICT) Examination Syllabus

9.5   Scripting

- Script development
- Incorporating script into HTML
- Basic command syntax/blocks
- Functions and objects
- Built-in objects and functions
- Looping
- Frames, documents and windows
- Database connectivity

9.6   Animations

- Animation tools
- Methods of animation
- e-commerce products and services
- e-commerce revenue models/ Financial models
- e-commerce site hosting options
- Digital technology
- e-signature
- Third parties
- Approval of e-contract

9.7   Emerging issues and trends

PAPER NO.10 FOUNDATIONS OF ACCOUNTING

GENERAL OBJECTIVE

This paper is intended to equip the candidate with knowledge, skills and attitudes that will enable him/her to account for various basic financial transactions, prepare and analyse financial statements

10.0 LEARNING OUTCOMES
A candidate who passes this paper should be able to:
- Apply accounting concepts in preparation of financial statements
- Apply the double entry aspects of accounting
- Account for assets and liabilities
- Prepare financial statements of a sole trader, partnership and company
- Analyse financial statements

10.1 Introduction to accounting

- The nature and purpose of accounting
- Objectives of accounting
- Users of accounting information and their respective information needs
- The accounting equation
- Regulatory framework of accounting, regulatory bodies such as ICPAK, IFAC, IASB, accounting standards (IAS/IFRS) development, importance and limitation of accounting standards and professional ethics
- Accounting concepts/principles
- Qualities of useful accounting information

10.2 Recording transactions

- Source documents; quotations, purchases order, statement of account, remittance advice, receipts, petty cash vouchers, Sales and purchase invoice, credit notes and debit notes, bank statements
- Books of original entry; sales journal, purchases journal, returns inwards journal, returns outward journal, cashbook, petty cashbook and general journal.
- Double entry and the ledger; Use of T accounts and double entry aspects (debit and credit), sales ledger, purchases ledger and purchases ledger
- The trial balance
- Manual versus computerised accounting systems

10.3 Accounting for assets and liabilities

10.3.1 Assets

- Property, plant and equipment – recognition, capital and revenue expenditure, measurement (depreciation and revaluation), disposal and disclosures – property, plant and equipment schedule
- Financial assets – examples and categories only
- Inventory – recognition, measurement and valuation using specific cost method, FIFO and weighted average cost
- Trade receivables – bad debts and allowance for doubtful debts and receivables control accounts
- Accrued income and prepaid expenses
- Cash at bank – cashbook and bank reconciliation statement

Diploma in Information Communication Technology (DICT) Examination Syllabus

- Cash in hand – cash book and petty cash books

10.3.2 Liabilities

- Bank overdraft – cash book and bank reconciliation
- Trade payables – control accounts
- Loans – accounting treatment of repayment of principal and interest
- Prepaid income and accrued expenses

10.4 Correction of errors and suspense account

10.5 Financial statements of a sole trader
- Income statement
- Statement of financial position

10.6 Financial statements of a partnership
- Partnership agreement
- Distinction between current and fixed capital
- Income statement
- Statement of financial position

10.7 Financial statements of a company
- Types of share capital – ordinary shares and preference shares
- Types of reserves – share premium, revaluation reserve, general reserves and retained profits
- Other liabilities – loan stocks
- Financial statements – income statement and statement of financial position
- Published financial statements – definition and a description of a complete set of published financial statements but not their preparation

10.8 Not-for-profit organisations
- Receipts and payments accounts
- Income and expenditure accounts
- Statement of financial position
- Fund accounting

10.9 Financial statements of a manufacturing entity
- Features of a manufacturing entity
- Classification and apportioning costs between manufacturing and selling and administration
- Financial statements – manufacturing account, income statement and statement of financial position

10.10 Analysing financial statements
- Statement of cash flows (categories of cash, methods of preparing statement of cash flows and their importance)
- Financial ratios – definition, categories, analysis and interpretation, application and limitations

10.11 Emerging issues and trends

PAPER NO. 11 INFORMATION SYSTEMS PROJECT SKILLS

GENERAL OBJECTIVE

This paper is intended to equip the candidate with knowledge, skills and attitudes that will enable him/her to manage an information systems project

11.0 LEARNING OUTCOMES

A candidate who passes this paper should be able to:

- Manage project scope using various techniques
- Use project management software tools to prepare project schedules and Gantt charts
- Identify, monitor and control project risks
- Undertake an information systems project

CONTENT

11.1 Overview of an information systems project
- Definition of a project
- Project management principles
- Purpose of project management
- Project roles and responsibilities
- Information system project environment
- Characteristics of projects
- Examples of information system projects

11.2 Information systems project lifecycle
- Project identification
- Feasibility study
- Project selection
- Project objectives
- Project proposal
- Project design
- Project development
- Project implementation
- Project monitoring
- Project review

11.3 Project scope management
- Scope definition
- Scope verification
- Scope control
- Using a software tool to assist in project scope management

11.4 Project planning
- Components of a plan
- Introduction to a case study
- The project charter
- Work plans
- Control plans
- Functions of a good project plan
- Using software tools to assist in IS project planning

11.5 Work breakdown structures
- Determining project tasks
- Creating work breakdown structures (WBSs)
- Uses of WBSs
- Task dependencies and relationships
- Planning time scales
- The activity list

- Methods of subdivision
- Uses of WBS
- Using software tools to assist in creating WBSs

11.6 IS project Estimation
- Estimating accuracy
- Estimating concepts and methods
- Task-based estimation
- Effort, productivity factors, influence factors
- Using software tools to assist in IS project estimation

11.7 Scheduling
- Schedule concepts and methods
- Network diagrams
- Precedence logic
- Estimate duration
- Network diagrams – PERT, CPM
- Allocation of resources
- Gantt charts and histograms
- Using software tools to assist in scheduling and resource management

11.8 IS project organisational structures
- Organisational structures
- Integrating project work and project organisational structures
- Team management
- Project team life cycle
- Communicating
- Project documentation
- Managing stakeholders
- Using a software tool to assist organisation and communication

11.9 IS project quality management
- Quality management
- Quality planning
- Quality assurance
- Quality control
- Tools and techniques for quality control
- Project quality factors
- Overview of project management standards (PRINCE 2)
- Software tools in project quality management
- ISO certification
- Change management
- Using a software tool to assist in quality management

11.10 Information systems project risk management
- Risk identification process
- Common sources of risk
- Risk management tools and techniques
- Risk analysis
- Risk monitoring and control
- Using a software tool in risk management

11.11 IS project implementation, completion and evaluation
- Managing transition
- Project evaluation
- Team evaluation
- Using a software tool to enhance project evaluation

11.12 Emerging issues and trends

Diploma in Information Communication Technology (DICT) Examination Syllabus

PAPER NO. 12 COMPUTER APPLICATIONS PRACTICAL II

GENERAL OBJECTIVE

This paper is intended to equip the candidate with knowledge, skills and attitudes that will enable him/her to use computer application tools and systems in an organisation

12.0 LEARNING OUTCOMES

A candidate who passes this paper should be able to:

- Use a spreadsheet package
- Use a database package
- Use a desktop publishing package

CONTENT

12.1 Spreadsheet software

- Using features of a spreadsheet
- Creating , saving and retrieving existing workbook
- Editing and cell navigation
- Formatting worksheets
- Manipulating data using different Cell referencing methods
- Using formulae and functions
- Sorting, filtering and data validation
- Analysing data using what if analysis
- Inserting charts and graphs including pivot tables
- Summarising, consolidating and outlining data
- Automating simple tasks
- Printing worksheets

12.2 Database software

- Using features of a database
- Creating, saving and retrieving existing databases
- Identifying fields, data types, records and tables
- Establishing relationships between tables
- Manipulating data
- Searching data
- Sorting and filtering
- Adding charts, diagrams, tables and attachments
- Securing a database
- Automating simple tasks
- Configuring database start up options
- Printing from a database

12.3 Using a desktop publishing software

- Using features of desktop publishing software
- Creating different types of publications
- Creating, saving and retrieving files

Diploma in Information Communication Technology (DICT) Examination Syllabus

- Setting page layout
- Typing and manipulating text
- Working with toolbars
- Identifying and using various icons in toolbars of the program including toolbox
- Drawing and manipulating various shapes
- Using the color palette
- Inserting the colour palette
- Inserting and manipulating images
- Importing and exporting files
- Setting borders
- Using merge tool
- Working with tables
- Designing and creating simple websites
- Automating simple tasks
- Printing a publication

12.4 Emerging issues and trends