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General Information Technology (GIT) Syllabus

Grade 12 (Effective from 2017)

**Department of Information Technology
National Institute of Education
Maharagama
Sri Lanka**

www.nie.lk

**General Information Technology (GIT)
Grade 12 - Syllabus**

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1.0 Introduction

In the modern world ICT is involved and integrated in every field. The knowledge of ICT has become an essential to make an empowered citizen who is confident enough in facing with future challenges. Therefore, students should have the basic skills to use ICT. Providing awareness of ICT and orienting to carrier path are the two main aspects considered in the revision of the GIT syllabus, which will contribute to achieve the necessary skills, thereby enabling students to best fit into the challenging society.

General Information Technology (GIT) was first introduced in 2002. According to the curriculum revision cycle, the current revision was carried out in 2016 and it will be implemented in schools from 2017 onwards for grade 12. General Information Technology (GIT) is a common subject for students in all streams of G.C.E Advanced Level. The total periods allocated for GIT is 60 (40 hours). National level examination, which is conducted by The Department of Examination of Sri Lanka for GIT, has been held annually since 2005.

2.0 National Goals

1. Based on the concept of respecting human values and understanding the differences between the Sri Lankan multi-cultural society, building up the nation and confirming the identity of Sri Lanka by promoting national integrity, national unity, national coherence and peace
2. While responding to the challenges of the dynamic world, identifying and conserving the National heritage.
3. Creating an environment which comprises of the conventions of social justice and the democratic life to promote the characteristics of respecting the human rights, being aware of the responsibilities, concerning each other with affectionate relationships.
4. Promoting a sustainable life style based on the people's mental and physical well being and the concept of human values
5. Promoting the positive feelings needed for balanced personality with the qualities of creative skills, initiative, critical thinking and being responsible
6. Through education, developing the human resources, needed for the progress of the well being of an individual, the nation as well as the economic growth of Sri Lanka.
7. Preparing the people for the changes that occur in a rapidly changing world by adapting to it and controlling them; developing abilities and potentialities of people to face the complex and unexpected occasions.
8. Sustaining the skills and attitudes based on justice, equality, mutual respect which is essential to achieve a respectable place in the international community.

National Education Commission Report (2003).

3.0 Basic Competencies

The competencies promoted through the education mentioned below might help to achieve the above-mentioned National Goals.

1. Competencies in Communication

This first set of competencies is made up of four subsets - Literacy, Numeracy, Graphics and information communication skills:

Literacy: Carefully listening, speaking clearly, and Reading for comprehension, writing clearly and accurately.

Numeracy: Using numbers to count, calculate, code and to measure, matter, space and time

Graphics: Making sense of line and form, expressing and recording essential data, instructions and ideas with line, form, colour, two and three-dimensional configurations, graphic symbols and icons

ICT Competencies: Knowledge on computers, and the ability to use the information communication skills learning or work as well as in the private life

2. Competencies relating to the Personality Development

- Generic skills such as creativity, divergent thinking, initiative, decision making, problem-solving, critical and analytical thinking, team work, inter-personal relationships, discovering and exploring
- Values such as integrity, tolerance and respect for human dignity
- Cognition

3. Competencies relating to the Environment

This is the second set of competencies related to the Social, Biological and Physical Environments.

Social Environment: Awareness, sensitivity and skills linked to being a member of society, social relationship, personal conduct, general and legal conventions, rights, responsibilities, duties and obligations.

Biological Environment: Awareness, sensitivity and skills linked to the living world, man and the ecosystem, the trees, forests, seas, water, air and life - plant, animal and human life.

Physical Environment: Awareness, sensitivity and skills relating to space, energy, fuels, matter, materials and their links with human living, food, clothing, shelter, health, comfort, respiration, sleep, relaxation, rest, wastes and excretion, media of communication and transport.

Included here are the skills in using tools to shape and for materials for living and learning

4. Competencies relating to preparation for the world of work

Employment related skills to maximize their potential and to enhance their capacity to contribute to economic development; to discover their vocational interests and aptitudes; to choose a job that suits their abilities and to engage in a rewarding and sustainable livelihood.

5. Competencies relating to religion and ethics

This fourth set of competencies laden with values and attitudes. It is essential for individuals to assimilate values, so that they may function in a manner consistent with the ethical, moral and religious modes of conduct, rituals, practices in everyday living, selecting the most appropriate.

6. Competencies in play and use of leisure

Competencies that link up with pleasure, joy, emotions and such human motivations. These find expression in play, sports, athletics and leisure pursuit of many types. These also link up with such values as cooperation, team work, healthy competition in life and work. Here are included such activities as are involved in aesthetics, arts, drama, literature, exploratory research and other creative modes in human living.

7. Competencies relating to ‘Learning to learn’

These competencies flow directly from the nature of a rapidly changing, complex and interdependent and crowded world whatever one learns, that learning will need updating and review. This requires that one should be aware of, sensitive and skilful in sustained attention, and be willing to persevere and attend to details that matter in a given situation.

4.0 Objectives of the Subject

This syllabus enables students in Grade 12 to

- recognize and use ICT applications and devices for day to day life by:
 - Understanding the internal working of computers
 - Using appropriate application software for different daily activities
 - Using computers effectively, efficiently and ethically to interact with the society
- explore different career opportunities related to ICT

5.0 Basic Competencies Mapping

No	Basic Competencies	Units
1	Competencies in Communication	1, 2, 3, 4, 5, 6, 7, 8
2	Competencies relating to the Personality Development	1, 2, 4, 5, 7
3	Competencies relating to the Environment	
	Social Environment	8
	Biological Environment	8
	Physical Environment	8
4	Competencies relating to preparation for the world of work	4, 5, 6, 8
5	Competencies relating to religion and ethics	5, 8
6	Competencies in play and use of leisure	4, 5, 6, 7
7	Competencies relating to 'Learning to learn'	4, 6, 7

5.0 Proposed Term – Wise Breakdown of the Syllabus

Term	Competency Level	No. of Periods
First Term	1.1, 1.2	03
	2.1, 2.2, 2.3	04
	3.1, 3.2	03
	4.1	06 (16 Periods)
Second Term	4.2, 4.3, 4.4	16
	5.1, 5.2, 5.3	07(23 Periods)
Third Term	6.1, 6.2	05
	7.1, 7.2, 7.3, 7.4	10
	8.1, 8.2, 8.3	06 (21 Periods)

6.0

Competency	Competency level	Content	Outcomes	Periods
<p>Competency 1: Explores the computer and its potential to reap timely benefits</p>	<p>1.1 Describes the computer as a system using a block diagram</p>	<ul style="list-style-type: none"> • System concept • Introduction to computer • Components of a computer <ul style="list-style-type: none"> • Hardware <ul style="list-style-type: none"> ▪ Input / Output devices ▪ Memory devices ▪ Storage devices (Optical, Magnetic, Semi conductor) ▪ Processor • Software <ul style="list-style-type: none"> ▪ System software (OS, Utilities) ▪ Application software • Block diagram of a computer <ul style="list-style-type: none"> ▪ Input ▪ Processing unit (ALU, CU) ▪ Output ▪ Memory / Storage ▪ Flow of data and control instructions among components • Data and information • Attributes of quality information 	<ul style="list-style-type: none"> • Defines a system • Identifies computer as a system (IPO) • Recognizes computer as a component of a system • Lists and describes the hardware components of a computer • Distinguishes peripherals as input devices, output devices and input/output devices • Lists and briefly describes the types of software • Draws the block diagram of a computer and names its components • Briefly explains each component of a computer • Distinguishes data and information with examples • Names and briefly describes attributes of quality information 	<p>02</p>

Competency	Competency level	Content	Outcomes	Periods
	1.2 Identifies the specification of personal computers	<ul style="list-style-type: none"> • Hardware specifications of personal computers <ul style="list-style-type: none"> ▪ Processor ▪ Memory ▪ Hard Disk ▪ Motherboard ▪ Ports ▪ Chip set ▪ Display ▪ GPU (Graphics Processing Unit) • Software specifications for a PC <ul style="list-style-type: none"> ▪ Operating System ▪ Application Software ▪ Utility Software 	<ul style="list-style-type: none"> • Identifies and selects specification of a personal computer according to requirements and affordability • Prepare specification of computer and peripheral devices • Selects software according to user requirements 	01
Competency 02 Explores the representation of data inside a computer	2.1 Describes the data representation used in computers and the related fundamental concepts	<ul style="list-style-type: none"> • Number systems <ul style="list-style-type: none"> ▪ Decimal ▪ Binary ▪ Hexadecimal • Relevant methods of conversion (Positive integers only) <ul style="list-style-type: none"> ▪ Decimal to Binary ▪ Binary to Decimal 	<ul style="list-style-type: none"> • Describes the number systems in terms of base value, place value and weight • Identifies the usage of number systems in computer • Converts decimal number into binary • Converts binary number into decimal 	02
	2.2 Identifies Basic Boolean Operators	<ul style="list-style-type: none"> • Basic Boolean Operators <ul style="list-style-type: none"> ▪ AND ▪ OR 	<ul style="list-style-type: none"> • Draws Truth Tables for basic Boolean operators • Draws Truth Tables for given 	

Competency	Competency level	Content	Outcomes	Periods
		<ul style="list-style-type: none"> ▪ NOT 	Boolean expressions	01
	2.3 Describes different character representation and their usage	<ul style="list-style-type: none"> • Encoding systems used in computers <ul style="list-style-type: none"> ▪ ASCII ▪ Unicode 	<ul style="list-style-type: none"> • Briefly describes the need for encoding systems in computer • Explains and compares ASCII and Unicode encoding systems 	01
Competency 3: Uses computers efficiently and effectively with awareness of Operating System (OS)	3.1 Investigates the contribution of OS to the functioning of computer	<ul style="list-style-type: none"> • Introduction to Operating System • Basic functions of an OS 	<ul style="list-style-type: none"> • Briefly describes the use of OS in PC's • Lists the basic functions of an OS • Distinguishes CLI and GUI 	01
	3.2 Uses functions of operating systems	<ul style="list-style-type: none"> • Managing Folders and Files (creating, naming, renaming, deleting, copying and moving) • File names and extensions • Making changes in Settings Panel <ul style="list-style-type: none"> ▪ Backup ▪ Fonts ▪ Mouse Settings ▪ Date and Time, Regional and Language Settings ▪ Add Remove Programs ▪ User Accounts • Tools in OS <ul style="list-style-type: none"> ▪ Character Map ▪ Disk Defragmentation 	<ul style="list-style-type: none"> • Creates folders and files with proper names • Identifies the file types by their extensions • Demonstrates the following operations for the existing files and folders <ul style="list-style-type: none"> ▪ rename ▪ copy and move ▪ delete • Adjusts the settings in setting panel when necessary • Identifies and uses the appropriate system tools for relevant tasks 	02

Competency	Competency level	Content	Outcomes	Periods
		<ul style="list-style-type: none"> ▪ Check Disk ▪ Disk Clean Up 		
<p>Competency 4: Uses Application software in day to day activities</p>	<p>4.1 Uses the word processing software in day to day activities</p>	<ul style="list-style-type: none"> • Introduction to word processing software • Features of word processing software • GUI components in word processing software <ul style="list-style-type: none"> ▪ Title Bar ▪ Formatting Tools ▪ Editing Tools ▪ Page Setup Tools ▪ View Tools ▪ Designing Tools ▪ Scroll bars ▪ Editing Area ▪ Insertion Point, Cursor ▪ Status Bar • Creating a new document <ul style="list-style-type: none"> ▪ Page layout and page borders ▪ Headers, footer and page numbers ▪ Typing text, formatting text • Editing a document <ul style="list-style-type: none"> ▪ Find and replace ▪ Grammar and spell checker ▪ Cut / Copy / Paste 	<ul style="list-style-type: none"> • Briefly explains the word processing software • Briefly explains the usage of word processing software • Discusses the features of word processing software • Lists the components available in GUI of a word processing software • Creates a new document • Applies proper text formats • Applies proper paragraph formats • Uses editing features to edit a document if necessary • Uses grammar and spell checker tool • Inserts relevant graphic objects and edits those using relevant editing tools • Inserts equations, symbols, links, breaks, date and time if necessary • Uses relevant short cut keys • Creates a table using a preferred method 	<p>06</p>

Competency	Competency level	Content	Outcomes	Periods
		<ul style="list-style-type: none"> • Inserting objects and usage of relevant editing tools <ul style="list-style-type: none"> ▪ pictures/charts/shapes/clip art /word art /text box etc • Inserting equations, symbols, links, breaks, date and time • Short cut keys <ul style="list-style-type: none"> ▪ open/new/save/selectall/cut /copy/paste/undo/redo/print • Creating and formatting tables <ul style="list-style-type: none"> ▪ Methods of creating a table <ul style="list-style-type: none"> ○ Selecting rows and columns with mouse /insert table/draw table ▪ Insert and delete rows and columns ▪ Merge and split cells ▪ Change row height/column width ▪ Table borders ▪ Styles • Formatting paragraphs • Saving documents in different formats • Printing documents <ul style="list-style-type: none"> ▪ Print preview ▪ Print setup ▪ Printer properties 	<ul style="list-style-type: none"> • Inserts columns, rows to a existing table • Deletes unnecessary columns and rows • Applies cell formats to a table • Merges and splits cells • Changes height and width of rows and columns according to requirements • Saves document in different formats according to the needs • Previews the document before printing • Prints a document after applying necessary print setups 	

Competency	Competency level	Content	Outcomes	Periods
		<ul style="list-style-type: none"> ▪ Print 		
	<p>4.2 Uses spreadsheet software to solve simple mathematical problems</p>	<ul style="list-style-type: none"> • Introduction to spreadsheet software • GUI of spreadsheet software <ul style="list-style-type: none"> ▪ Work Book ▪ Work Sheet ▪ Columns ▪ Rows ▪ Cell ▪ Formula bar ▪ Function of cell pointer based on its appearance • Moving around the worksheet • Types of data entries in a cell <ul style="list-style-type: none"> ▪ Text ▪ Numbers ▪ Formula 	<ul style="list-style-type: none"> • Briefly explains the electronic spreadsheet software • Lists available spreadsheet software • Lists the functions of spreadsheet software • Identifies the components and features of GUI of spreadsheet software • Moves around the worksheet • Lists the types of data entered into a cell • Applies relevant formats to the cells according to the requirement • Inserts rows and columns 	<p>06</p>

Competency	Competency level	Content	Outcomes	Periods
		<ul style="list-style-type: none"> • Formatting cells <ul style="list-style-type: none"> ▪ Number ▪ Alignment ▪ Font • Inserting rows and columns • Deleting cells, rows and columns • Worksheet <ul style="list-style-type: none"> ▪ Rename ▪ Insert ▪ Delete • Naming and selecting cell ranges • Copying and moving cell contents <ul style="list-style-type: none"> ▪ Cut, copy, paste and paste special • Simple calculations <ul style="list-style-type: none"> ▪ arithmetic operations with basic Operators (+ , - , * , /) ▪ calculations using cell references and operators <ul style="list-style-type: none"> - Relative cell references - Absolute cell references • Inbuilt Functions <ul style="list-style-type: none"> ▪ sum, average, max, min, countand rank • Types of charts <ul style="list-style-type: none"> ▪ Column, Bar, Line and Pie • Chart tools • design / layout / format 	<p>according to requirement</p> <ul style="list-style-type: none"> • Deletes unnecessary rows and columns • Inserts, deletes and renames worksheets according to requirement • Selects and names a range • Copies and moves cell contents according to requirements • Performs simple calculations using numbers and basic operators • Performs simple calculations using relative cell references and absolute cell references • Uses inbuilt functions to perform simple calculations • Identifies relevant charts types according to the requirement • Creates charts • Uses filter tool to query information • Uses sorting tool to organise data in an orderly manner • Sets the page according to the requirements • Previews and prints the worksheet 	

Competency	Competency level	Content	Outcomes	Periods
		<ul style="list-style-type: none"> • Data filtering • Data sorting • Printing a worksheet <ul style="list-style-type: none"> ○ Page setup <ul style="list-style-type: none"> ▪ Page options ▪ Margin options ▪ Sheet options ○ Print preview ○ Print 		
	<p>4.3 Uses electronic presentation software to enhance presentation</p>	<ul style="list-style-type: none"> • Introduction to electronic presentation • Attributes of an effective presentation • Features of presentation software • Usage of presentation software • Selecting slide layout • Selecting background • Inserting text & multimedia contents • Applying slide transition and custom animation • short cut keys specific to the presentation • Saving a presentation with different formats • Printing a presentation with different options 	<ul style="list-style-type: none"> • Briefly explains the electronic presentation software • Lists and explains the attributes of an effective presentation • Briefly explains the usage of presentation software • Discusses the features of presentation software • Creates a presentation attractively using presentation software • Selects appropriate layout relevant to the content • Inserts texts, pictures, sounds, videos, graphics, shapes, clip arts, tables, smart art, header and footer, page numbers, hyper links, action buttons etc • Applies a slide transition 	4

Competency	Competency level	Content	Outcomes	Periods
			<ul style="list-style-type: none"> • Applies background • Applies a suitable custom animation to the content • Saves presentation in required format • Presents the presentation • Uses relevant shortcut keys • Previews the Slides before printing • Prints the presentation to suit different needs 	
	<p>4.4 Uses Database Management System (DBMS) Software to manage data in a database</p>	<ul style="list-style-type: none"> • Introduction to database • Comparison of manual database and automated database • Introduction to DBMS software • Objects of DBMS software <ul style="list-style-type: none"> ▪ Table ▪ Query ▪ Form ▪ Report • Field names • Primary key and foreign key • Data types <ul style="list-style-type: none"> ▪ Text ▪ Number ▪ Date / Time ▪ Currency ▪ Yes / No 	<ul style="list-style-type: none"> • Briefly explains the database • Distinguishes manual from automated database • Defines DBMS • Identifies the need of DBMS • Lists objects of DBMS • Uses the fields and creates a table • Selects appropriate data types in creating tables • Briefly describes the usage of the primary key and the foreign key • Selects and sets the most suitable field as the primary key • Applies the relevant field properties according to the 	06

Competency	Competency level	Content	Outcomes	Periods
		<ul style="list-style-type: none"> • Field properties <ul style="list-style-type: none"> ▪ Field size ▪ Format • Designing queries <ul style="list-style-type: none"> ▪ Filter fields ▪ Filter records • Sort records • Form wizard • Report wizard 	<ul style="list-style-type: none"> requirements • Retrieves required information by using queries • Sorts records as required • Creates form using form wizard • Creates reports using report wizard 	
<p>Competency 5: Creates Multimedia contents to express ideas effectively</p>	<p>5.1 Designs still graphics using a graphic software</p>	<ul style="list-style-type: none"> • Types of graphics <ul style="list-style-type: none"> ▪ Raster ▪ Vector • Properties of a digital image: pixel, resolution, size, color • Graphic file formats and their features <ul style="list-style-type: none"> ▪ Jpg, png,gif, bmp etc • Image capacity and compression: lossy formats and lossless formats • Basic operations of a graphic software <ul style="list-style-type: none"> ▪ Open, save and edit ▪ Importing images ▪ Sizing and transformation ▪ Selections, cut, crop, replace ▪ Working with layers ▪ Working with Text 	<ul style="list-style-type: none"> • Describes the properties of digital still images • Creates attractive graphics using graphics software tools • Edits digital graphics as required • Uses basic text effects to enhance the appearance 	<p>3</p>
	<p>5.2 Edits audio contents using</p>	<ul style="list-style-type: none"> • Recording audio contents • Editing (editing a relevant segment from 	<ul style="list-style-type: none"> • Records audio as required using audio editing software 	<p>2</p>

Competency	Competency level	Content	Outcomes	Periods
	an audio editing software	original content) <ul style="list-style-type: none"> • Audio file formats <ul style="list-style-type: none"> ▪ Mp3, wav, au etc 	<ul style="list-style-type: none"> • Edits a relevant segment of audio from original • Converts audio files to other formats as required 	
	5.3 Edits videos using an video editing software	<ul style="list-style-type: none"> • Manipulating and rearranging video • Video file formats <ul style="list-style-type: none"> ▪ Mp4, avi, wmv etc 	<ul style="list-style-type: none"> • Edits videos as required • Converts video files to other formats as required 	2
Competency 6: Uses the Internet efficiently and effectively to access and communicate information in day-to-day life	6.1 Explores the architecture of the Internet	<ul style="list-style-type: none"> • Purpose of computer network <ul style="list-style-type: none"> ▪ Data communication ▪ Sharing resources • Network types <ul style="list-style-type: none"> ▪ PAN (Personal Area Network) ▪ LAN (Local Area Network) ▪ WAN (Wide Area Network) • Communication devices of a network <ul style="list-style-type: none"> ▪ Modem ▪ Router ▪ Network Interface Card(NIC) ▪ Switch ▪ Wireless Base Station ▪ Mobile communication GPRS, GSM etc • Connectivity types <ul style="list-style-type: none"> ▪ Guided ▪ Unguided 	<ul style="list-style-type: none"> • Describes the requirements of a computer network • Names and describes the network types • Lists and briefly describes the communication devices of a network • Distinguishes between guided and unguided media • Briefly describes <ul style="list-style-type: none"> ▪ Client server model ▪ Peer to peer ▪ Hybrid • Distinguishes between wired and wireless networks 	2

Competency	Competency level	Content	Outcomes	Periods
		<ul style="list-style-type: none"> • Wired and wireless networks • Client server model • Peer to peer • Hybrid 		
	<p>6.2 Uses the internet services to access relevant information</p>	<ul style="list-style-type: none"> • Uniform resource locator (URL) / Uniform resource identifier(URI) • Web browsers and search engines • Internet services <ul style="list-style-type: none"> ○ WWW <ul style="list-style-type: none"> ▪ Information sharing and electronic transactions ○ Email ○ Social Media <ul style="list-style-type: none"> ▪ internet based text and video based communication (Internet relay chat (IRC) / SMS / video calls etc) ▪ Blogging and micro blogging ○ Cloud Computing ○ Cloud based services • Internet of Things(IoT) <ul style="list-style-type: none"> ○ Definition ○ Characteristics ○ Needs ○ Applications 	<ul style="list-style-type: none"> • Briefly describes URL and URI • Briefly describes Internet and its services • Uses web browsers and search engines for accessing Information • Creates an email account • Uses emails in communication • Downloads required information • Describes instant messaging and its types • Uses internet based IRC, SMS, video calls etc for communication • Defines blogging and micro blogging • Creates and uses blog to share information • Defines cloud computing • Uses cloud computing to store, manage and process data or information 	3

Competency	Competency level	Content	Outcomes	Periods
		<ul style="list-style-type: none"> ○ Enabling Technologies 	<ul style="list-style-type: none"> ● Defines IoT ● Briefly describes the characteristics of IoT ● Identifies need of IoT ● Discusses the applications of IoT ● Identifies Enabling Technologies for IoT 	
7.0 Develops websites incorporating multi-media components	7.1 Explores the arrangement and the composition of websites to organize pages and contents	<ul style="list-style-type: none"> ● Contents of a website <ul style="list-style-type: none"> ▪ Home page ▪ Link page ● Building blocks of a web page <ul style="list-style-type: none"> ▪ Text, graphics, audio, video, animation ▪ Hyperlink ● Organization of contents <ul style="list-style-type: none"> ▪ Layout, frames, lists, tables 	<ul style="list-style-type: none"> ● Identifies the web pages of a website ● Identifies the contents of a web page ● Analyses the arrangement of contents of a web page 	1
	7.2 Analyses user requirements(multimedia contents) for web pages	<ul style="list-style-type: none"> ● Defining the objectives of a website ● Contents to be displayed 	<ul style="list-style-type: none"> ● creates effective and appropriate information layout of a web page 	1
	7.3 Uses HTML to create web pages	<ul style="list-style-type: none"> ● Introduction to Hyper Text Markup Language ● Basic HTML tags of a web page 	<ul style="list-style-type: none"> ● ExplainsHyper Text Markup Language ● Saves the source document 	6

Competency	Competency level	Content	Outcomes	Periods
		<ul style="list-style-type: none"> ▪ Page definition <ul style="list-style-type: none"> ○ <html>, </html> ▪ Head section, <ul style="list-style-type: none"> ○ <head></head> ○ <title></title> ▪ Body section <ul style="list-style-type: none"> ○ <body></body> ▪ Background color ▪ Text formatting <ul style="list-style-type: none"> ○ <h1>...<h6>tags ○ <p></p> ○
 ○ Underline, bold, italic ○ <font:> <ul style="list-style-type: none"> • Size and color ▪ Adding comments ▪ Lists <ul style="list-style-type: none"> ○ Ordered lists ○ Unordered lists ▪ Multimedia objects <ul style="list-style-type: none"> ○ Image ○ Audio ○ Video 	<p>with suitable extensions</p> <ul style="list-style-type: none"> • Designs the web page by inserting appropriate multimedia objects according to user requirements • Organizes data using lists in web page 	
	7.4 Uses authoring tool to create web pages	<ul style="list-style-type: none"> • Introduction to web authoring tools 	<ul style="list-style-type: none"> • Uses web authoring tools to create a simple web page 	2

Competency	Competency level	Content	Outcomes	Periods
<p>Competency 8: Uses ICT efficiently and effectively to be successful in life</p>	<p>8.1 Explains the contribution of ICT towards national development</p>	<ul style="list-style-type: none"> • Application of ICT <ul style="list-style-type: none"> ▪ Education <ul style="list-style-type: none"> - Learning / Teaching Process - Learning Management System - School Management System ▪ Health <ul style="list-style-type: none"> - Investigation tools such as MRI scan, CAT scan etc - Simulations in medical education - Tele-medicine ▪ Agriculture <ul style="list-style-type: none"> - Linking rural agricultural communities - Communicating with the administration - Meteorological Information - Computer controlled devices ▪ E- Business <ul style="list-style-type: none"> - Travel - Online shopping - Bank (ATM, Credit Card) - On-line Employment ▪ E – Governance <ul style="list-style-type: none"> - Issuing of identity cards, driving licence and passports - Issuing birth, marriage, death certificates 	<ul style="list-style-type: none"> • Discusses advantages and disadvantages of ICT • Lists and briefly describes the applications of ICT in various fields • Appreciates the contribution of ICT in national development 	<p>2</p>
	<p>8.2 Seeks ICT career</p>	<ul style="list-style-type: none"> • Career opportunities related to ICT profession 	<ul style="list-style-type: none"> • Identifies the career paths and opportunities related to ICT 	<p>1</p>

Competency	Competency level	Content	Outcomes	Periods
	opportunities and paths to suit one's life	<ul style="list-style-type: none"> ▪ Software Engineer ▪ Software Quality Assurance Engineer ▪ Business Analyst ▪ IT Project Manager ▪ Graphic Designer ▪ Software Architect ▪ Quality Assurance Leader ▪ Technical Leader ▪ Network Administrator ▪ Database Administrator ▪ Computer Application Assistant ▪ IT Manager etc 	<ul style="list-style-type: none"> • Identifies the tasks related to each ICT profession 	
	8.3 Makes safe use of ICT with awareness on relevant issues	<ul style="list-style-type: none"> • Ethical and legal Issues <ul style="list-style-type: none"> ▪ Cyber crime ▪ Privacy ▪ Piracy ▪ E- Laws ▪ Sri Lanka Computer Emergency Readiness Team (SLCERT) ▪ Unauthorised access ▪ Ethical behaviour on cyberspace <ul style="list-style-type: none"> - Cyber stalking - Intellectual property (patent, copy right) - Plagiarism - Blackmail • Ethical and legal issues in social media <ul style="list-style-type: none"> ▪ Inappropriate materials 	<ul style="list-style-type: none"> • Identifies and briefly describes ethical and legal issues related to ICT • Gets aware of e-laws and SLCERT • Lists the good and bad impacts of social media • Identifies the threats to computer system • Take precautionary measures to protects the computer hardware and software • Identifies the issues arise from unsafe use of internet and takes precautionary measures to prevent them 	3

Competency	Competency level	Content	Outcomes	Periods
		<ul style="list-style-type: none"> • Security <ul style="list-style-type: none"> ▪ Hardware protection <ul style="list-style-type: none"> - Physical protection <ul style="list-style-type: none"> ○ UPS ○ Surge arresters - Environmental protection <ul style="list-style-type: none"> ○ Dust, Humidity, Sunlight, Heat ○ Protection from natural disasters ▪ Software protection <ul style="list-style-type: none"> - Anti threat software - Firewall • Precautions in using internet • Health & Safety <ul style="list-style-type: none"> ▪ Repetitive Strain Injury (RSI) ▪ E-Waste and green computing 	<ul style="list-style-type: none"> • Identifies the health issues arise from using computer • Takes precautionary measures to avoid health issues when using computers • understands about good and unfavourable computer habits • Defines e-waste • Briefly describes the adverse effects of improper disposal of E-waste • Disposes e-waste in a proper way • Recognizes and appreciates green computing • Adapts relevant workplace practices to minimize the health issues when working for a long hours with computers 	

8.0 Assessment and Evaluation

The details together with the format and the nature of questions will be introduced by the Department of Examinations.