

MARINA INTERNATIONAL SCHOOL

ICT SCHEME OF WORK

FORM 5 - TERM 1

WEEK	TOPIC	TOPIC DETAILS
1.1	THE SYSTEMS LIFE CYCLE (continued):- Stage 3: Development and Testing	<ul style="list-style-type: none"> □ Testing designs <ul style="list-style-type: none"> o describe how data/file structures are created and tested o describe how validation routines are created and tested o describe how input methods are created and tested o describe how output formats are created and tested • Testing strategies <ul style="list-style-type: none"> o describe the need to test each module o describe the need to test the whole system o describe testing using normal data including definition and examples o describe testing using live data including definition and examples o describe testing using abnormal data including definition and examples o describe testing using extreme data including definition and examples • Improvements needed as a result of testing <ul style="list-style-type: none"> o describe how it may be necessary to improve the system and make changes (e.g. data/file structures, validation routines, input methods, output formats may need to be amended/improved)
1.2	THE SYSTEMS LIFE CYCLE (continued):- Stage 4: Implementation	<ul style="list-style-type: none"> • Different methods of system implementation <ul style="list-style-type: none"> o describe the four methods of implementation (direct changeover, parallel running, pilot running, phased implementation) • Methods of implementation <ul style="list-style-type: none"> o identify suitable situations for the use of different methods of system implementation (e.g. organisations or departments within organisations which need a quick changeover, organisations or departments within organisations which cannot afford to lose data) o describe advantages and disadvantages of each method of implementation
1.3	WEBSITE AUTHORING:- Web development layers	<ul style="list-style-type: none"> • Identify and describe the three web development layers • Understand the function of: content layer to enter the content and create the structure of a web page; presentation layer to display and format elements within a web page; behaviour layer to enter scripting language to elements within a web page
1.4	WEBSITE AUTHORING:- Web development layers	<ul style="list-style-type: none"> • Identify and describe the three web development layers • Understand the function of: content layer to enter the content and create the structure of a web page; presentation layer to display and format elements within a web page; behaviour layer to enter scripting language to elements within a web page

WEEK	TOPIC	TOPIC DETAILS
2.1	THE SYSTEMS LIFE CYCLE (continued):- Stage 5: Documentation & Stage 6: Evaluation	<ul style="list-style-type: none"> • Technical documentation for an information system <ul style="list-style-type: none"> o Explain the need for technical documentation o Identify the components of technical documentation (e.g. purpose of the system/program, limitations of the system, program listing, program language, program flowcharts/algorithms, system flowcharts, hardware and software requirements, file structures, list of variables, input format, output format, sample runs/test runs, validation routines) • User documentation for an information system <ul style="list-style-type: none"> o Explain the need for user documentation o Identify the components of user documentation (e.g. purpose of the system, limitations of the system, hardware and software requirements, how to load/run/install software, how to save a file, how to print data, how to add records, how to delete/edit records, input format, output format, sample runs, error messages, error handling, troubleshooting guide/helpline, frequently asked questions, glossary of terms) <p>Describe the need to evaluate a solution in terms of the efficiency of the solution, the ease of use of the solution, and the appropriateness of the solution</p> <ul style="list-style-type: none"> • Describe the need for a variety of evaluation strategies, e.g. <ul style="list-style-type: none"> o compare the solution with the original task requirements o identify any limitations and necessary improvements to the system o evaluate the users' responses to the results of testing the system
2.2	IMPACT OF EMERGING TECHNOLOGIES	<ul style="list-style-type: none"> • Describe how emerging technologies are having an impact on everyday life (e.g. artificial intelligence, biometrics, vision enhancement, robotics, quantum cryptography, computer-assisted translation, 3D and holographic imaging, virtual reality)
2.3	WEBSITE AUTHORING :- Create a web page	<ul style="list-style-type: none"> • Use software tools to create the content layer of a web page to meet the needs of the audience <ul style="list-style-type: none"> o explain the purpose of the head and body sections of a web page o place appropriate elements in the head section of a web page, including: page title, attached stylesheets o place appropriate elements in the body section of a web page o explain why tables are used to structure elements within a web page o insert a table, including: table header, table rows, table data o use appropriate table attributes, including: to adjust cells to span more than one row/column, to set table and cell sizes in terms of pixels and/or % values, to apply styles to tables, to meet the needs of the audience
2.4	WEBSITE AUTHORING :- Create a web page	<p>Use software tools to appropriately place the content in a web page</p> <ul style="list-style-type: none"> o insert appropriate objects into a web page including: text, still images, moving images, sound clips o apply styles to text within a web page o apply styles to a list, including: ordered list, unordered list o insert an appropriate image into a web page o use appropriate image attributes, including: to adjust its size, aspect ratio and alternate text

WEEK	TOPIC	TOPIC DETAILS
3.1	THE EFFECTS OF USING IT: Effects of IT on employment	<ul style="list-style-type: none"> o Describe how there has been a reduction of employment in offices, as workers' jobs have been replaced by computers in a number of fields (e.g. payroll workers, typing pools, car production workers) o Describe how there has been an increase in employment in other fields (e.g. website designers, computer programmers, delivery drivers in retail stores)
3.2	THE EFFECTS OF USING IT: Effects of IT on working patterns within organisations	<ul style="list-style-type: none"> • Effects of IT on working patterns within organisations o Describe how the use of computers has led to a number of employees changing their working patterns (e.g. part-time working, flexible hours, job sharing, compressed hours) o Describe what is meant by part-time working, flexible hours, job sharing, compressed hours.
3.3	WEBSITE AUTHORING:- Create a web page (continued)	<ul style="list-style-type: none"> • Use software tools to create navigation within a web page and between web pages o Describe the function of a hyperlink o Describe the concept of a bookmark and methods of creating a bookmark within a web page o Describe the function of an anchor and why it is rarely seen from the browser view o Define and understand the terms relative file path and absolute file path o Explain why absolute file paths must not be used for hyperlinks to locally saved web pages/objects o Use an object's id attribute to create a bookmark within a web page
3.4	Create a web page (continued)	<ul style="list-style-type: none"> o Create an anchor within a web page o Create hyperlinks from: text, images o Create hyperlinks, where appropriate, to: bookmarks on the same page, other locally stored web pages, a website using the URL, send mail to a specified email address, open in a specified location including: the same window, a new window, with a window named as specified
4.1	ICT APPLICATIONS:- Communication Application	<ul style="list-style-type: none"> o Describe a range of communication applications (e.g. newsletters, websites, multimedia presentations, music scores, cartoons, flyers and posters) o Describe the use of smartphones for communication (e.g. text messaging, phone calls, accessing the internet)
4.2	Communication Application:- (continued)	<ul style="list-style-type: none"> o Describe the use of internet telephony, including Voice over Internet Protocol (VoIP) o Describe applications for publicity and corporate image publications (e.g. business cards, letterheads, flyers and brochures)
4.3	Website Authoring (continued): Use Stylesheets	<ul style="list-style-type: none"> o Use software tools to create the presentation layer of a web page o Explain what is meant by the term cascading stylesheets o Explain the difference between attached stylesheets and inline style attributes o Explain the hierarchy of multiple attached stylesheets and inline styles within a web page o Explain the difference between a style and a class

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4.4	Use Stylesheets (continued)	<ul style="list-style-type: none"> o Create generic external styles and inline style attributes, including: background properties (e.g. colour, images), font properties (e.g. style, typeface), table properties (e.g. background colour, horizontal and vertical alignment, spacing, padding, borders: including collapsed, border thickness, visible/invisible) o Create external styles to be tagged in a web page including: h1, h2, h3, p, li, as required o Specify the font appearance for each style, including features such as: font family, size, colour, alignment, bold and italic o Save styles in cascading stylesheet format o Explain why relative file paths must be used for attached stylesheets o Attach an external stylesheet to a web page using a relative file path o Attach comments to an external stylesheet
5.1	ICT applications (continued):- Data handling applications	<ul style="list-style-type: none"> • Describe the use of a range of data handling applications (e.g. surveys, address lists, clubs and society records, school reports and school libraries)
5.2	Measurement applications	<ul style="list-style-type: none"> • Describe a range of measurement applications (e.g. scientific experiments, weather stations) o Explain the difference between analogue data and digital data o Explain the need for conversion between analogue and digital data o Describe the use of microprocessors and computers in a number of applications (e.g. pollution monitoring, intensive care units in hospitals) o Discuss the advantages and disadvantages of using computers in measurement rather than humans
5.3	Website Authoring (continued):- Publish a website	<ul style="list-style-type: none"> • Know how to publish a website o Explain how to upload and publish the content of a website using ftp o Test that web page elements work o Test navigation within/from a web page using a test plan
5.4	Test a website	<ul style="list-style-type: none"> • Test a website o Create a test plan to test a website including: web page elements are visible, navigation within/from a web page o Justify the choice of test plan
6.1	ICT applications (continued) :- Microprocessor in control applications	<ul style="list-style-type: none"> • Describe the role of a microprocessor or computer in control applications, including the role of the pre-set value • Describe the use of computer control in applications (e.g. turtle graphics, automatic washing machines, automatic cookers, computer controlled central heating systems, burglar alarms, computer-controlled glasshouses)
6.2	Modelling applications	<ul style="list-style-type: none"> • Describe the use of computer modelling in spreadsheets (e.g. for personal finance)

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6.3	DATA ANALYSIS:- Create a data model	<ul style="list-style-type: none"> • Create and edit a data model <ul style="list-style-type: none"> o Define the terms: cells, rows, columns, sheets, tabs, pages, charts o Explain the importance of accurate data entry in spreadsheets o Enter data with 100 per cent accuracy o Edit the structure of an existing model, including: inserting cells, deleting cells, inserting rows, deleting rows, inserting columns, deleting columns o Define the terms: formula, function, absolute reference, relative reference, ranges, named cell, named range, nested formulae/functions o Explain the difference between a formula and a function o Explain the order in which mathematical operations are performed and use brackets to make sure that formulae work
6.4	Create a data model (continued)	<ul style="list-style-type: none"> o Use mathematical operators, including: add, subtract, multiply, divide, indices, where necessary o Explain the function of, and use, absolute and relative referencing, as appropriate, when formulae are to be replicated o Use absolute and relative references, named cells, named ranges and nested formulae, as appropriate o Use functions, including: sum, average, maximum, minimum, integer, rounding, counting, LOOKUP, VLOOKUP, HLOOKUP, IF and nested functions, when necessary.
7.1	ICT applications (continued):- Applications in manufacturing industries	<ul style="list-style-type: none"> • Describe a range of computer-controlled applications (e.g. robotics in manufacture and production line control) • Discuss the advantages and disadvantages of using computer-controlled systems rather than humans
7.2	School management system	<ul style="list-style-type: none"> • Describe how systems are used to manage learner registration and attendance • Describe how systems can be used to record learner performance • Describe how systems can be used for organising examinations, creating timetables and managing teaching cover/substitution
7.3	Data analysis (continued):- Test the data model	<ul style="list-style-type: none"> • Devise suitable test plans and test the data to demonstrate that the model works <ul style="list-style-type: none"> o Define the terms: testing, test data, expected outcome, actual outcome, normal data, abnormal data, extreme data, what-if o Explain the need to test a model before it is used o Select appropriate test data to thoroughly test a data model o Justify the choice of test data o Calculate the expected outcomes before testing the model o Test the model, correcting errors and re-testing, where appropriate o Test the model by the use of what-ifs

WEEK	TOPIC	TOPIC DETAILS
7.4	Manipulate data	<ul style="list-style-type: none"> • Use search tools in spreadsheet software to select subsets of data <ul style="list-style-type: none"> o Search using a single criterion and using multiple criteria, where appropriate, with a variety of operators such as: AND, OR, NOT, LIKE, >, <, =, >=, <= o Search, where appropriate, using wildcards o Sort data using a single criterion and using multiple criteria into ascending or descending order, as required
8.1	ICT applications (continued):- Booking systems	<ul style="list-style-type: none"> • Identify areas where booking systems are used (e.g. travel industry, theatres and cinemas) <ul style="list-style-type: none"> o Describe the online processing involved in booking tickets o Discuss the advantages and disadvantages of online booking systems
8.2	Banking applications	<ul style="list-style-type: none"> • Describe the computer processing involved in Electronic Funds Transfer (EFT) <ul style="list-style-type: none"> o Describe the computer processing involved in using automatic teller machines (ATM) (e.g. withdrawing cash, depositing cash or cheques, checking account balance, mini statements, smartphone/cellphone recharge/top up, bill paying, money transfers, ordering paper-based goods)
8.3	Data analysis (continued):- Present data	<ul style="list-style-type: none"> • Use software tools to adjust the display features in a spreadsheet <ul style="list-style-type: none"> o adjust row height, column width and cell sizes so that all data, labels, and formulae are fully visible o wrap text within cells so that all data are fully visible o hide and display rows and columns, where appropriate o use features to enhance a spreadsheet, including: text colour, cell colour, bold, underline, italic and shading to meet the needs of the audience o format numeric data to display the number of decimal places, a variety of different currency values, percentages, as appropriate
8.4	Present data (continued)	<ul style="list-style-type: none"> o set the spreadsheet to display formulae and values o set the page orientation to portrait or landscape, as necessary o set the page layout so that it prints on a specified number of pages o use conditional formatting appropriately to change display format depending upon the contents of a cell
9.1	ICT applications (continued):- Banking applications (continued)	<ul style="list-style-type: none"> o Describe the use of processing involved in credit/debit card transactions o describe the use of processing involved in credit/debit card transactions o describe the clearing of cheques o describe phone banking o describe internet banking, and discuss the advantages and disadvantages of it
9.2	Computers in medicine	<ul style="list-style-type: none"> • Describe the contents of information systems in medicine (including patient records, pharmacy records, monitoring and expert systems for diagnosis) <ul style="list-style-type: none"> o describe how 3D printers can be used in producing medical aids (e.g. surgical and diagnostic aids, development of prosthetics and medical products, tissue engineering, artificial blood vessels and the design of medical tools and equipment)

WEEK	TOPIC	TOPIC DETAILS
9.3	FILE MANAGEMENT:- Manage files effectively	<ul style="list-style-type: none"> o Identify different file types and their use(s), for example: css, csv, gif, htm, jpg, pdf, png, rtf, txt, zip o Locate stored files o Open and import files of different types o Save files in a planned hierarchical directory/folder structure o Save files using appropriate file names o Save and print files in a variety of formats, including: a draft document, final copy, screenshots, database reports, data table, graph/chart, a web page in browser view, a web page in HTML view
9.4	Manage files effectively (continued)	<ul style="list-style-type: none"> o Save and export data into file formats for your applications packages, e.g. .doc, .docx, .xls, .sdb, .sdc, .rtf, .ppt o Explain why generic file formats are needed o Save and export data into generic file formats, including: .csv, .txt, .rtf, .pdf, .css, .htm
10.1	ICT Applications (continued):- Computers in Libraries	<ul style="list-style-type: none"> o Describe the files used in libraries (e.g. records of books and borrowers) o Describe the computer processing involved in the issue of books, including the use of direct data entry methods
10.2	Computers in Libraries (contined)	<ul style="list-style-type: none"> o Describe the automatic processing involved in issuing reminders for overdue books
10.3	DOCUMENT PRODUCTION:- Reduce file sizes for storage or transmission	<ul style="list-style-type: none"> • Explain the need to reduce file sizes for storage or transmission • Identify where it will be necessary to reduce file sizes for storage or transmission • Reduce file sizes using file compression
10.4	Imaging	<ul style="list-style-type: none"> • use software tools to place and edit an image to meet the requirements of its intended application and audience • know when it is necessary to edit an image and can appropriately: <ul style="list-style-type: none"> o place an image with precision o resize an image o maintain or adjust the aspect ratio of an image, or distort an image, where appropriate o crop an image o rotate an image o reflect an image (flip an image horizontally or vertically) o adjust the colour depth of an image o adjust the brightness of an image o adjust the contrast of an image o understand the need to reduce image resolution to increase transmission speed o reduce the resolution of an image to reduce file size

WEEK	TOPIC	TOPIC DETAILS
11.1	REVISION	PAPER 1 (COMPONENT 12) THEORY
11.2	REVISION	PAPER 1 (COMPONENT 12) THEORY
11.3	REVISION	WEBSITE AUTHORIZING & DATA MANIPULATION
11.4	REVISION	WEBSITE AUTHORIZING & DATA MANIPULATION
12.1	REVISION	PAPER 1 (COMPONENT 12) THEORY
12.2	REVISION	PAPER 1 (COMPONENT 12) THEORY
12.3	REVISION	PAPER 2 & 3 (COMPONENT 22 & 32) PRACTICAL
12.4	REVISION	PAPER 2 & 3 (COMPONENT 22 & 32) PRACTICAL
13.1	REVISION (continued)	PAPER 1 (COMPONENT 12) THEORY
13.2	MOCK EXAMINATION 1 BEGINS	Forms 3, 5, 6 & 7
13.3	REVISION (continued)	PAPER 2 & 3 (COMPONENT 22 & 32) PRACTICAL
13.4	MOCK EXAMINATION 1 BEGINS	Forms 3, 5, 6 & 7
14.1	MOCK EXAMINATION 1 (continued)	MOCK EXAMINATION 1 (continued)
14.2	MOCK EXAMINATION 1 (continued)	MOCK EXAMINATION 1 (continued)
14.3	MOCK EXAMINATION 1 (continued)	MOCK EXAMINATION 1 (continued)
14.4	MOCK EXAMINATION 1 (continued)	MOCK EXAMINATION 1 (continued)
15.1	END OF TERM FOR STUDENTS	END OF TERM FOR STUDENTS

WEEK	TOPIC	TOPIC DETAILS
15.2	END OF TERM FOR STUDENTS	END OF TERM FOR STUDENTS
15.3	END OF TERM FOR STUDENTS	END OF TERM FOR STUDENTS
15.4	END OF TERM FOR STUDENTS	END OF TERM FOR STUDENTS

ICT SCHEME OF WORK

FORM 5 - TERM 2

WEEK	TOPIC	TOPIC DETAILS
1.1	ICT Applications (continued):- Expert systems	<ul style="list-style-type: none">• Identify a range of applications which use expert systems (e.g. mineral prospecting, car engine fault diagnosis, medical diagnosis, chess games)• Identify the components of an expert system (e.g. interactive user interface, inference engine, rules base, knowledge base)
1.2	ICT Applications (continued):- Expert systems	<ul style="list-style-type: none">• Describe how an expert system is used to suggest diagnoses
1.3	DOCUMENT PRODUCTION:- Mail merge	<ul style="list-style-type: none">• mail merge a document with a data sourceo explain why mail merged documents are createdo edit a master document to insert appropriate fields from a data sourceo insert special fields such as dateo select records to mergeo merge a document with selected fieldso save and print merge master documento Save and print selected merged documents as appropriate

WEEK	TOPIC	TOPIC DETAILS
1.4	Layout	<ul style="list-style-type: none"> • Use software tools to prepare a basic document to match the purpose and target audience <ul style="list-style-type: none"> o create a new document or, where appropriate, open an existing document o enter text and numbers o use editing techniques to manipulate text and numbers, including highlight, delete, move, cut, copy, paste, drag and drop o place objects into the document from a variety of sources, including text, image, screen shot, spreadsheet extract, database extract, clip art or chart o create a table with a specified number of rows and columns o format a table and its contents o place text or objects in a table o wrap text round a table, chart or image, including below, square and tight • Use software tools to use headers and footers appropriately within a range of software packages <ul style="list-style-type: none"> • Create headers and footers • Align consistently within a document the contents of the header and footer including to left margin, right margin and center of the page • Place automated objects in headers and footers, including: automated file information, automated page numbering, text, date, time • Explain why headers and footers are needed
2.1	ICT Applications (continued):- Computers in the retail industry	<ul style="list-style-type: none"> • Describe the use of point of sale (POS) terminals, how the stock file is updated automatically, and how new stock can be ordered automatically • Describe the use of electronic funds transfer at point of sale (EFTPOS) terminals (e.g. the checking of the validity of cards, the use of chip and PIN, the communication between the supermarket computer and the bank computer)
2.2	Computers in the retail industry (continued)	<ul style="list-style-type: none"> • Describe internet shopping • Discuss the advantages and disadvantages of internet shopping

WEEK	TOPIC	TOPIC DETAILS
2.3	Styles	<ul style="list-style-type: none">• Understand the purpose of a corporate house style and ensure that all work produced matches this<ul style="list-style-type: none">o produce documents which conform to a corporate house styleo explain what is mean by corporate branding/house style• Apply styles to ensure consistency of presentation<ul style="list-style-type: none">o explain why consistent styles are requiredo apply consistent styles using a variety of application packageso ensure that page/slide layout is consistent, including font styles, text alignment, spacing between lines, spacing between paragraphs, spacing before and after headingso create and apply an appropriate style, including font type (serif, sans-serif), point size, font colour, alignment, line spacing, style of bullets, text alignment to the left, right, centre or fully justifiedo select an appropriate font style for a task, taking into account the audienceo use text enhancement, including: bold, underline, italic, highlighto create and apply paragraph style(s) with a new style name to match the corporate house style.

WEEK	TOPIC	TOPIC DETAILS
2.4	PROOFING:- Software tools, Proofing techniques and Graphics and charts	<ul style="list-style-type: none"> • Use software tools ensure that all work produced contains as few errors as possible <ul style="list-style-type: none"> o explain why the automated suggestions given by spell check software do not always give the correct response o use automated tools, including spell check facilities, to remove errors o use validation routines to minimise errors o explain why validation checks must be appropriate to the data that is being checked • Accuracy of data entry <ul style="list-style-type: none"> o describe the importance of accuracy and the potential consequences of data entry errors o correct errors in data entry, including: transposed numbers, spelling, consistent character spacing, consistent case and factual errors (following proofreading by a third party) o check to ensure consistent line spacing, to remove blank pages/slides, remove widows/orphans, ensure that tables and lists are not split over columns or pages/slides • Verification <ul style="list-style-type: none"> o define the term verification o describe visual verification (i.e. visual comparison of data entered with a data source) o describe double data entry (i.e. entering data twice and the computer compares the two sets of data, either by comparing them after data has been entered or by comparing them during data entry) o explain the need for validation as well as verification • Produce a graph or chart from the given data <ul style="list-style-type: none"> o select data to produce a graph/chart, including using continuous data, non-continuous data, and specified data ranges where necessary o select the graph or chart type to match the required purpose and meet the needs of the audience o label the graph or chart, including chart title, legend, sector labels, sector values, segment labels, segment values, percentages, category axis title, value axis title, category axis labels, value axis labels, scales o add a second data series to a chart, as necessary o add a second axis to a chart, as necessary o change the maximum and minimum values of an axis scale to appropriate values o enhance the appearance of a graph or chart, including changing the colour scheme or fill patterns, extracting a pie chart sector to meet the needs of the audience
3.1	ICT Applications (continued):- Recognition systems	<ul style="list-style-type: none"> • Describe how recognition systems work (e.g. Magnetic Ink Character Recognition (MICR), Optical Mark Recognition (OMR) and Optical Character Recognition (OCR), Radio Frequency Identification Device (RFID))

WEEK	TOPIC	TOPIC DETAILS
3.2	Recognition systems (continued)	<ul style="list-style-type: none"> • Describe how number plate recognition systems work • Describe the processing of cheques • Describe the processing of OMR media (e.g. school registers, multiple choice examination papers) • Describe how RFID is used in a range of applications (e.g. tracking stock, passports, automobiles, contactless payment)
3.3	DATA MANIPULATION:- Create a database structure and Manipulate data	<ul style="list-style-type: none"> • Define and understand the terms primary key and foreign key and their role in a relational database <ul style="list-style-type: none"> o create a relationship between two or three tables o discuss the advantages and disadvantages of using relational tables rather than a flat file database • Design and use suitable software tools to create a data entry form appropriate to purpose and audience <ul style="list-style-type: none"> o understand the key features of form design o create a data entry form to meet the needs of the audience o create a data entry form with all fields included to match the purpose of the task o create an appropriate data entry form, including: appropriate font styles and sizes, spacing between fields, character spacing of individual fields, use of white space, radio buttons, drop down menus, highlighting key fields • Use arithmetic operations or numeric functions to perform calculations within a database <ul style="list-style-type: none"> o create a calculated field o perform calculations at run time using formulae and functions, including: addition, subtraction, multiplication, division, sum, average, maximum, minimum, count • Use suitable software tools to sort data appropriately in a database <ul style="list-style-type: none"> o sort data using a single criterion and using multiple criteria where necessary, into ascending or descending order • Use suitable software tools to search a database to select subsets of data <ul style="list-style-type: none"> o perform suitable searches using a single criterion and using multiple criteria, on different field types such as alphanumeric, numeric, Boolean o perform searches using a variety of operators including: AND, OR, NOT, LIKE, >, <, =, >=, <=, <> o perform searches using wildcards, as appropriate

WEEK	TOPIC	TOPIC DETAILS
3.4	Present data	<ul style="list-style-type: none"> • Use suitable software tools to produce reports to display data appropriate to purpose and audience o produce reports to display all the required data and labels in full where required o use appropriate headers and footers within a database report, including report header, report footer, page header, page footer o set report titles o produce different output layouts as required, including tabular format, labels o align data and labels appropriately, including right aligning numeric data and decimal alignment o format numeric data, including number of decimal places, variety of currencies, percentage, as required by the task o show and hide data and labels within a report, as necessary o export data for use in another application
4.1	ICT Applications (continued) Monitoring and tracking systems	<ul style="list-style-type: none"> • Describe how a workforce or member of the public can be monitored or logged • Describe how the use of cookies can be used to monitor a person's internet activity • Describe the use of key-logging • Describe how worker/employee call monitors can be used • Describe the use of automatic number plate recognition
4.2	Satellite systems	<ul style="list-style-type: none"> • Describe the use of different satellite systems (e.g. Global Positioning Systems (GPS), satellite navigation, Geographic Information System (GIS), media communication systems)
4.3	PRESENTATIONS	<ul style="list-style-type: none"> • Use a master slide to appropriately place objects and set suitable styles to meet the needs of the audience o identify the need for consistency of presentation, in terms of styles, point sizes, colour schemes, transitions and animations o use the master slide to place objects appropriately, including: images, text, logos, slide footers, automated slide numbering o use the master slide to set font styles, heading styles and colour schemes, as required by the audience o manipulate and use specified areas for headings, subheadings, bullets, images, charts, colours, text boxes, presenter notes, audience notes, as appropriate

WEEK	TOPIC	TOPIC DETAILS
4.4	PRESENTATIONS (continued)	<ul style="list-style-type: none"> • Use suitable software tools to create presentation slides to meet the needs of the audience <ul style="list-style-type: none"> o insert a new slide, when required, selecting the appropriate slide type for the purpose o place text on the slides including: headings, subheadings, bulleted lists, where appropriate o apply consistent styles using available software tools, including: select from the presentation colour scheme, the use of text enhancement o place appropriate images on the slides, including: still images, video clips, animated images o place sound within a slide o place charts imported from a spreadsheet o place other objects including: symbols, lines, arrows, call out boxes o create consistent transitions between pages o create consistent animation facilities on text, images and other objects • Use suitable software tools to display the presentation in a variety of formats, including: looped on-screen carousel, controlled presentation, presenter notes, audience notes, taking into account the needs of the audience
5.1	AUDIENCE:- Audience appreciation	<ul style="list-style-type: none"> • Show a clear sense of audience when planning and creating ICT solutions • Analyse the needs of an audience • Explain why solutions must meet the needs of the audience
5.2	Legal, moral, ethical and cultural appreciation	<ul style="list-style-type: none"> • Explain the need for copyright legislation and the principles of copyright relating to computer software (e.g. software piracy) • Describe methods that software producers employ to prevent software copyright being broken • Discuss the legal, moral, ethical and cultural implications of creating an ICT solution • Create ICT solutions that are responsive to and respectful of the needs of the audience • Discuss why the internet is not policed (although legislation is enforced in some countries) and the effect of this, including the existence of inappropriate site

WEEK	TOPIC	TOPIC DETAILS
5.3	REVISION: Data Analysis Create a and edit a data model	<ul style="list-style-type: none"> • create and edit a data model o define the terms: cells, rows, columns, sheets, tabs, pages, charts o explain the importance of accurate data entry in spreadsheets o enter data with 100 per cent accuracy o edit the structure of an existing model, including: inserting cells, deleting cells, inserting rows, deleting rows, inserting columns, deleting columns o define the terms: formula, function, absolute reference, relative reference, ranges, named cell, named range, nested formulae/functions o explain the difference between a formula and a function o explain the order in which mathematical operations are performed and use brackets to make sure that formulae work o use mathematical operators, including: add, subtract, multiply, divide, indices, where necessary o explain the function of, and use, absolute and relative referencing, as appropriate, when formulae are to be replicated o use absolute and relative references, named cells, named ranges and nested formulae, as appropriate o use functions, including: sum, average, maximum, minimum, integer, rounding, counting, LOOKUP, VLOOKUP, HLOOKUP, IF and nested functions, when necessary
5.4	Test the data model	<ul style="list-style-type: none"> • Devise suitable test plans and test the data to demonstrate that the model works o define the terms: testing, test data, expected outcome, actual outcome, normal data, abnormal data, extreme data, what-if o explain the need to test a model before it is used o select appropriate test data to thoroughly test a data model o justify the choice of test data o calculate the expected outcomes before testing the model o test the model, correcting errors and re-testing, where appropriate o test the model by the use of what-ifs
6.1	13.0: COMMUNICATION:- Communicate with other ICT users using email	<ul style="list-style-type: none"> • Describe the constraints that affect the use of email, including: the laws within a country, acceptable language, copyright, local guidelines set by an employer, the need for security, netiquette, password protection
6.2	Communicate with other ICT users using email (continued)	<ul style="list-style-type: none"> • Define the term spam • Explain why spam needs to be prevented • Describe the methods which can be used to help prevent spam • Explain why email groups are used

WEEK	TOPIC	TOPIC DETAILS
6.3	Manipulate data	<ul style="list-style-type: none"> o Use search tools in spreadsheet software to select subsets of data o search using a single criterion and using multiple criteria, where appropriate, with a variety of operators such as: AND, OR, NOT, LIKE, >, <, =, >=, <= o search, where appropriate, using wildcards • Sort data using a single criterion and using multiple criteria into ascending or descending order, as required
6.4	Present data	<ul style="list-style-type: none"> • Use software tools to adjust the display features in a spreadsheet o adjust row height, column width and cell sizes so that all data, labels, and formulae are fully visible o wrap text within cells so that all data are fully visible o hide and display rows and columns, where appropriate o use features to enhance a spreadsheet, including: text colour, cell colour, bold, underline, italic and shading to meet the needs of the audience o format numeric data to display the number of decimal places, a variety of different currency values, percentages, as appropriate o set the spreadsheet to display formulae and values o set the page orientation to portrait or landscape, as necessary o set the page layout so that it prints on a specified number of pages o use conditional formatting appropriately to change display format depending upon the contents of a cell
7.1	COMMUNICATION (continued):- Effective use of the internet	<ul style="list-style-type: none"> • Fundamentals of the internet o define the terms internet and intranet o explain the differences between the internet, an intranet and the World Wide Web (WWW)
7.2	Effective use of the internet (continued)	<ul style="list-style-type: none"> o explain the concept of storage in the cloud o define and understand the terms: HyperText Transfer Protocol (HTTP), HyperText Transfer protocol secure variant (HTTPS), Uniform Resource Locator (URL), hyperlink, Internet Service Provider (ISP), File Transfer Protocol (FTP)
7.3	INTERVENTION:- Manipulate data	<ul style="list-style-type: none"> o Use search tools in spreadsheet software to select subsets of data o search using a single criterion and using multiple criteria, where appropriate, with a variety of operators such as: AND, OR, NOT, LIKE, >, <, =, >=, <= o search, where appropriate, using wildcards • Sort data using a single criterion and using multiple criteria into ascending or descending order, as required
7.4	Present data (continued)	<ul style="list-style-type: none"> o format numeric data to display the number of decimal places, a variety of different currency values, percentages, as appropriate o set the spreadsheet to display formulae and values o set the page orientation to portrait or landscape, as necessary o set the page layout so that it prints on a specified number of pages o use conditional formatting appropriately to change display format depending upon the contents of a cell

WEEK	TOPIC	TOPIC DETAILS
8.1	COMMUNICATION:- Effective use of the internet (continued)	<ul style="list-style-type: none"> o describe the structure of a web address o explain what a web browser is used for o explain what a search engine is used for o define the term blog and describe the use of a blog as a means of communication
8.2	Effective use of the internet (continued)	<ul style="list-style-type: none"> o define the term wiki and describe the use of a wiki as a means of communication o define the term social networking and describe the use of social networking websites as a means of communication.
8.3	REVISION: Website Authoring Create a web page	<ul style="list-style-type: none"> • Use software tools to create the content layer of a web page to meet the needs of the audience <ul style="list-style-type: none"> o explain the purpose of the head and body sections of a web page o place appropriate elements in the head section of a web page, including: page title, attached stylesheets o place appropriate elements in the body section of a web page o explain why tables are used to structure elements within a web page o insert a table, including: table header, table rows, table data o use appropriate table attributes, including: to adjust cells to span more than one row/column, to set table and cell sizes in terms of pixels and/or % values, to apply styles to tables, to meet the needs of the audience • Use software tools to appropriately place the content in a web page <ul style="list-style-type: none"> o insert appropriate objects into a web page including: text, still images, moving images, sound clips o apply styles to text within a web page o apply styles to a list, including: ordered list, unordered list o insert an appropriate image into a web page o use appropriate image attributes, including: to adjust its size, aspect ratio and alternate text
8.4	Create a web page (continued)	<ul style="list-style-type: none"> • Use software tools to create navigation within a web page and between web pages <ul style="list-style-type: none"> o describe the function of a hyperlink o describe the concept of a bookmark and methods of creating a bookmark within a web page o describe the function of an anchor and why it is rarely seen from the browser view o define and understand the terms relative file path and absolute file path o explain why absolute file paths must not be used for hyperlinks to locally saved web pages/objects o use an object's id attribute to create a bookmark within a web page o create an anchor within a web page o create hyperlinks from: text, images o create hyperlinks, where appropriate, to: bookmarks on the same page, other locally stored web pages, a website using the URL, send mail to a specified email address, open in a specified location including: <ul style="list-style-type: none"> o the same window, a new window, with a window named as specified

WEEK	TOPIC	TOPIC DETAILS
9.1	COMMUNICATION (continued) Effective use of the internet	<ul style="list-style-type: none"> • Advantages and disadvantages of using the internet o explain why the internet is so popular giving reasons such as the amount of information available and the speed of accessing information o explain why an internet search to find relevant information is not always fast. o explain why it is not always easy to find reliable information on the internet • explain how to evaluate the reliability of information found on the internet
9.2	SECURITY OF DATA:- Security of data online	<ul style="list-style-type: none"> • Security of data online o explain what is meant by the term digital certificate and its purpose o explain what is meant by the term Secure Socket Layer (SSL) o describe the features of a web page that identify it as using a secure server
9.3	Website Authoring:- Use stylesheets (continued)	<ul style="list-style-type: none"> • Use software tools to create the presentation layer of a web page o explain what is meant by the term cascading stylesheets o explain the difference between attached stylesheets and inline style attributes o explain the hierarchy of multiple attached stylesheets and inline styles within a web page o explain the difference between a style and a class o create generic external styles and inline style attributes, including: background properties (e.g. colour, images), font properties (e.g. style, typeface), table properties (e.g. background colour, horizontal and vertical alignment, spacing, padding, borders: including collapsed, border thickness, visible/invisible) o create external styles to be tagged in a web page including: h1, h2, h3, p, li, as required o specify the font appearance for each style, including features such as: font family, size, colour, alignment, bold and italic o save styles in cascading stylesheet format o explain why relative file paths must be used for attached stylesheets o attach an external stylesheet to a web page using a relative file path o attach comments to an external stylesheet
9.4	Website Authoring:- Test and publish a website (continued)	<ul style="list-style-type: none"> • Know how to publish a website o explain how to upload and publish the content of a website using ftp o test that web page elements work o test navigation within/from a web page using a test plan • Test a website o create a test plan to test a website including: web page elements are visible, navigation within/from a web page o justify the choice of test plan
10.1	IGCSE MOCK EXAMS 2	IGCSE MOCK EXAMS 2

WEEK	TOPIC	TOPIC DETAILS
10.2	IGCSE MOCK EXAMS 2	IGCSE MOCK EXAMS 2
10.3	IGCSE MOCK EXAMS 2	IGCSE MOCK EXAMS 2
10.4	IGCSE MOCK EXAMS 2	IGCSE MOCK EXAMS 2
11.1	IGCSE MOCK EXAMS 2	IGCSE MOCK EXAMS 2
11.2	IGCSE MOCK EXAMS 2	IGCSE MOCK EXAMS 2
11.3	IGCSE MOCK EXAMS 2	IGCSE MOCK EXAMS 2
11.4	IGCSE MOCK EXAMS 2	IGCSE MOCK EXAMS 2
12.1	IGCSE MOCK EXAMS 2	IGCSE MOCK EXAMS 2
12.2	IGCSE MOCK EXAMS 2	IGCSE MOCK EXAMS 2
12.3	IGCSE MOCK EXAMS 2	IGCSE MOCK EXAMS 2
12.4	IGCSE MOCK EXAMS 2	IGCSE MOCK EXAMS 2