

EDUCATIONAL QUALITY AND ASSESSMENT PROGRAMME





























South Pacific Form Certificate

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STRAND 1: OPEN SOURCE AND PROPRIETARY SOFTWARE

| Item No. | Skill Level | Evidence | Extended Abstract | Relational | Multistructural | Unistructural |
|-------------|----------------|--|----------------------|---|---|--|
| 1.1 | 1 | A method in which pictures are manipulated to appear as | | | | |
| | | moving images is | | | | |
| | | A. Drawing | | | | С |
| | | B. Creativity | | | | |
| | | C. Animation | | | | |
| | | D. Photograph | | | | |
| 1.2 | 1 | Examples of video editing software | | | | State at least one |
| | | Adobe Premiere Pro, Final cut Pro, Power Director, Light works, Vegas Pro, Blender, Adobe after effects, movie maker | | | | example of video editing software |
| 1.3 | 2 | Features of a graphics card - A graphics card are primarily designed to remove the graphical processing tasks from the processor or RAM. It includes a dedicated graphical processing unit (GPU) and a dedicated RAM that help it to process graphical data quickly. A graphics card can be integrated within the motherboard or be added on as an extension card. | | | Describe a feature of graphics card. | Define/ state a feature of graphics card. |
| 1.4 | 2 | Advantages of open source model of software development. 1. It can be downloaded for free, no cost incurred. 2. Developers can add and modify it, which means it can be better quality and more secure and less prone to bugs than proprietary systems. 3. Using open source software also means it can be used in all the systems. 4. You can modify and adapt open source software for your own business requirements, something that is not possible with proprietary systems. | | | States at least two advantages. | States any one of the advantages. |
| 1.5 | 3 | Free Trial Software, is a computer software that can be run for a limited period of time before it expires and stops working. The user gets a chance to try it out for free and then decide whether he or she would like to buy its full version. | | Explains free trial version and its benefit to the user. Ideas are related and uses examples. | Describes what trial version is and its benefit | States/ identifies either free trial version or benefit. |

STRAND 2: ETHICS OF ICT, ENVIRONMENT ISSUES, CLIMATE CHANGE, SAFE PRATICES

| Item | Skill | Friday | | | | |
|------|----------------|---|-------------------|--|---|--|
| No. | Level Evidence | | Extended Abstract | Relational | Multistructural | Unistructural |
| 2.1 | 1 | Piracy is the unauthorized copying, use or selling of software. | | | | Correct definition. |
| 2.2 | 1 | Types of security – cybersecurity, information technology security (IT security), network security, cloud security, Internet of Things Security, password, encryption, antivirus. | | | | At least one correct. |
| 2.3 | 2 | Hijack your usernames and passwords Steal your money and open credit card and bank accounts in your name Ruin your credit Request new account Personal Identification Numbers (PINs) or additional credit cards Make purchases Add themselves or an alias that they control as an authorized user so it's easier to use your credit Obtain cash advances Use and abuse your Social Security number Sell your information to other parties who will use it for illicit or illegal purposes | | | Describes one threat. | Attempts to state a threat. |
| 2.4 | 1 | Intellectual property refers to the ownership of intangible and non-physical goods. This includes ideas, names, designs, symbols, artwork, writings, patents, trademarks, copyright, and trade secrets. | | | | Clearly defines intellectual property in relation to ownership. |
| 2.5 | 3 | Computer ethics is set of moral principles that regulate the use of computers that supports the copyright laws by giving the creator of an original work the exclusive rights to it and to who may use it and for what purposes. This is usually for a limited time only and ensures that the copyright holder is credited for his or her work. | | Explains the relationship between computer ethics and copyright laws using relevant examples | Describes Computer ethics and copyright law without relevant examples | Defines computer ethics/ copyright law or identifies a relation. |

| 2.6 | 3 | Internet privacy is the privacy and security level of personal data published via the Internet. It is a broad term that refers to a variety of factors, techniques and technologies used to protect sensitive and private data, communications, and preferences. Internet privacy is cause for concern for any user planning to make an online purchase, visit a social networking site, participate in online games or attend forums. If a password is compromised and revealed, a victim's identity may be fraudulently used or stolen. | | Explains the impact of internet on privacy with examples | Describes the impact without using examples. | Define internet/ privacy or identify one impact. |
|-----|---|---|--|--|--|--|
| 2.7 | 4 | Computers and most electronics contain toxic materials such as lead, zinc, nickel, flame retardants, barium, and chromium. Specifically with lead, if released into the environment can cause damage to human blood, kidneys, as well as central and peripheral nervous systems. When e-waste is warmed up, toxic chemicals are released into the air damaging the atmosphere. The damage to the atmosphere is one of the biggest environmental impacts from e-waste. When electronic waste is thrown away in landfills their toxic materials seep into groundwater, affecting both land and sea animals. This can also affect the health of the people in the developing countries where most of the electronic waste in dumped. | Discusses the impacts with examples and make predictions/evaluation. | Explains the impact of e-waste using examples. | describes e-waste without using examples. | Briefly states the impact. |

STRAND 3: PROGRAMMING

| Item | Skill | | Response Level | | | | | | |
|------|-------|---|----------------------|------------|--|--|--------------------------|--|--|
| No. | Level | Evidence | Extended Abstract | Relational | Multistructural | Unistructural | Weak | | |
| 3.1 | 1 | The process of finding errors and fixing them within a program A. Scanning. B. Skimming. C. Debugging. D. Assembling. | | | | С | Incorrect, irrelevant | | |
| 3.2 | 1 | A program is a set of instructions that a computer follows in order to perform a particular task. | | | | Clearly defines the term. | Incorrect, irrelevant | | |
| 3.3 | 1 | firstNumber, secondNumber, sumOfTwoNumbers | | | | Any one variable | Incorrect | | |
| 3.4 | 1 | Should output be: 7 + 8 = 15 or 8 + 7 = 15 | | | | Clearly states the correct output. | Incorrect, irrelevant | | |
| 3.5 | 2 | Pseudocode: Enter the number of minutes for the call If call <= 5mins Then TotalCost = 2.15 Else TotalCost = 2.15 + ((mins -5)*0.45) | | | Clearly writes all the steps correctly | Writes one step correctly. | Incorrect, irrelevant | | |

| 3.6 | 3 | Start Enter number of minutes Is call <=5 mins TC = 2.15 Display Total Cost | Use of correct steps with the correct symbols | At least two correct steps with the correct symbols | One correct step with the correct symbol | Incorrect, irrelevant |
|-----|---|--|---|--|---|--------------------------|
| 3.7 | 3 | Program flowchart is a diagram which uses a set of standard graphic symbols to represent the sequence of coded instructions fed into a computer, enabling it to perform specified logical and arithmetical operations. It is a great tool to improve work efficiency. There are four basic symbols in program flowchart, start, process, decision and end. | Explains programme flowchart using examples Answer includes several ideas, which are linked and supported by examples. | Describes programme flowchart without using examples Answer includes several ideas, but are not linked and not supported by examples. | Clearly define the term. Or any one relevant idea stated. | Incorrect, irrelevant |

STRAND 4: WEBSITE DESIGN AND DEVELOPMENT

| Item | Skill | | Response Level | | | | | |
|------|-------|---|----------------------|------------|----------------------------------|---------------------------------|--------------------------|--|
| No. | Level | Evidence | Extended Abstract | Relational | Multistructural | Unistructural | Weak | |
| 4.1 | 1 | Which of the following is the protocol in the above URL? A. http B. www C. youtube Dcom | | | | А | Incorrect, irrelevant | |
| 4.2 | 1 | Which of the following is the sub domain in the above URL? A. http B. www C. youtube Dcom | | | | В | Incorrect, irrelevant | |
| 4.3 | 1 | Definition of website: a website is a collection of Web pages (files) coded in HTML that are linked to each other and to pages on other sites | | | | Defines website correctly | Incorrect, irrelevant | |
| 4.4 | 2 | Alignment is an important fundamental of design, since it helps create a sharp, ordered appearance by ensuring the elements have a pleasing connection with each other. Hierarchy - when you have multiple elements in a design, you want to make sure you're giving extra weight visually to your most important message. Contrast is an important principle of design because it lets you draw out the most important elements of a design and add | | | Outlines at least two principles | States one principle. | Incorrect, irrelevant | |

| | | emphasis. Repetition is an important design basic because it helps strengthen the overall look of the design. Proximity is also helpful in creating organization on a page, since similar or related elements should be grouped together to create a relationship between them. Color is a significant part of design and should be considered carefully each time you start a new design. Communicate, graphics. | | | | | |
|-----|---|---|----------------------------|--|---|---|--------------------------|
| 4.5 | 3 | The interaction process between a website and its purpose built database means that you have a web page that grabs information from a database (the web page is connected to the database by programming,) and inserts that information into the web page each time it is loaded. If the information stored in the database changes, the web page connected to the database will also change accordingly (and automatically,) without human intervention. | | Explains the interaction between website and its purpose built database. Provides examples. | Describe the interaction process between website and its purpose built database without examples. | State the interaction processes or define website/purpo se built database | Incorrect, irrelevant |
| 4.6 | 4 | html <html> <head> <style> body { background-color: yellow; } H1{ color: blue; font style: italic; font-size: 80px; text-align: center; } </style> </head> <body> <h1>My Home Page</h1> </body> </html> | All eight input is correct | Six inputs are correct | Four inputs are correct | Two is correct. | Incorrect, irrelevant |

STRAND 5: MICROPROCESSOR CONTROL

| Item | Skill | Evidence |] | | | |
|------|-------|--|---|---|--|--|
| No. | Level | | | Multistructural | Unistructural | |
| 5.1 | 1 | A computer language that is written in binary codes is | | | | |
| | | A. natural language | | | | В |
| | | B. machine language | | | | |
| | | C. assembly language | | | | |
| | | D. high level language | | | | |
| 5.2 | 1 | A microprocessor is a component that performs the instructions and tasks involved in computer processing. | | | | Clearly define the term |
| 5.3 | 2 | The microprocessor or CPU reads each instruction from the memory, decodes it and executes it. It processes the data as required in the instructions. The processing is in the form of arithmetic and logical operations. The data is retrieved from memory or taken from an input device and the result of processing is stored in the memory or delivered to an appropriate output device, all as per the instructions. | | | Describes the inter relationship between processing and storage. | Defines either processing or storage. |
| 5.4 | 2 | Without software the hardware cannot function because software, consists of all the instructions that tell the hardware how to perform a task. | | | Describes the reason why hardware cannot function on its own. | Defines the term without inter relating the hardware and software. |
| 5.5 | 3 | Embedded systems must continually react to changes in the system's environment and must compute certain results in real time without any delay. Consider an example of a car cruise controller; it continually monitors and reacts to speed and brake sensors. It must compute acceleration or de-accelerations repeatedly within a limited time; a delayed computation can result in failure to control of the car. In real-time systems safety and | | Explain why the system responds to a critical change. | Describes how the system responds to change. | Defines the term embedded processor/systems. |

| | | reliability are the critical factors. For example in the fire alarm system the embedded microprocessor should be programmed to respond to smoke and trigger the alarm system. | | | |
|-----|---|---|--|---|---|
| 5.6 | 3 | Machine code, also known as machine language, is the elemental language of computers. It is read by the computer's central processing unit (CPU), is composed of digital binary numbers and looks like a very long sequence of zeros and ones. Ultimately, the source code of every human-readable programming language must be translated to machine language by a compiler or an interpreter, because binary code is the only language that computer hardware can understand. | Clearly explains the relationship between machine language and programming language. | Describe the relationship between machine and programming language. | Briefly defines the machine language or programming language. |