



Pacific Community  
Communauté du Pacifique



EDUCATIONAL QUALITY AND ASSESSMENT PROGRAMME

# Assessment Schedule 2018

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© Educational Quality and Assessment Programme, 2018  
3 Luke Street, Nabua, Private Mail Bag, Suva, Fiji.  
Telephone: (679) 3370733 Fax: (679) 3370021

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## STRAND 1: OPEN SOURCE AND PROPRIETARY SOFTWARE

Item No.	Skill Level	Evidence	Response Level				
			Extended Abstract	Relational	Multistructural	Unistructural	Weak
1.1	1	<p><b>Examples of proprietary software</b> include Microsoft Windows, Adobe Flash Player, PS3 OS, iTunes, Adobe Photoshop, Google Earth, macOS (formerly Mac OS X and OS X), Skype, WinRAR, Oracle's version of Java and some versions of Unix.</p>				<i>Mentioned any one</i>	<i>Incorrect , irrelevant</i>
1.2	2	<p>Uninstalling software can help your computer in various ways:</p> <ul style="list-style-type: none"> <li>✓ Adding hard drive space</li> <li>✓ Increase computer speed – by removing programs you're not using, they won't have to access to run in your background ; therefore increasing PC speeds</li> </ul> <p>Enhancing your computer security – many times we ignore updates on programs we are no longer using. Updates are not only for getting the newest features, but for also patching any security vulnerabilities in the older version. Therefore, by ignoring the updates, you are also ignoring the security patches.</p>			<p><i>State more than one importance of how to uninstall software</i></p> <p><i>(key words: hard drive space, computer /memory speed)</i></p>	<i>State at least one importance of how to uninstall software</i>	<i>Incorrect, irrelevant</i>
1.3	2	<p>Use this option to choose which programs you want Windows to use, by default.</p> <p>If a program does not show up in the list, you can make the program a default by using Set Associations.</p> <ul style="list-style-type: none"> <li>✓ Open Default Programs by clicking the <b>Start</b> button and then clicking <b>Default Programs</b>.</li> <li>✓ Click <b>Associate a file type or protocol with a program</b>.</li> <li>✓ Click the file type or protocol that you want the program to act as the default for.</li> <li>✓ Click <b>Change program</b>.</li> <li>✓ Click the program that you want to use as the default for the file type you selected, or click the arrow next to <b>Other Programs</b> to show additional programs. (If you don't see <b>Other Programs</b>, or your program is not listed, click <b>Browse</b> to find the program you want to use, and then click <b>Open</b>. If no other programs are installed that are able to open the file type or protocol, your choices will be limited.) If you don't see the program you want to use as the default, click the arrow next to <b>Other Programs</b> to see a list of programs available on your computer.</li> <li>✓ Click <b>OK</b>.</li> </ul>			<p><i>List two or more steps of installation using the default settings</i></p> <p><i>(please include the short-cuts)</i></p>	<i>List one step of installation using the default settings</i>	<i>Incorrect, irrelevant</i>

1.4	1	<p>✓ A printed circuit board that controls the output to display screen.</p> <p>A type of display adapter or video card installed within most computer devices to display graphical data with high clarity, color, definition and overall appearance.</p>				Candidate state any one of the definition	Incorrectly defined
1.5	3	<p>Graphics software is used in many facets of life and business include editing and sharing digital photos, creating logos, drawing and modifying clip art, creating digital fine art, creating Web graphics, designing advertisements and product packaging, touching up scanned photos and drawing maps etc.</p> <p>A graphic package is an application that can be used to create and manipulate images on a computer. It has the following:</p> <ul style="list-style-type: none"> <li>✓ Produces images by changing the colour of pixels on the screen</li> <li>✓ These are coded as a pattern of bits to create a bitmapped graphic file</li> </ul> <p>Bitmapped graphics are used for images such as scanned photos or pictures taken with a digital camera</p>		<p><i>Explain both usage of graphic software and process taken using the advanced features</i></p> <p><i>(include examples)</i></p>	<p><i>List one of the two – usage of software and process taken using the advanced features</i></p>	<p><i>Candidates understand one of the two - usage of graphic software and process taken using the advanced features</i></p>	<p><i>Incorrect, irrelevant</i></p>

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

Item No.	Skill Level	Evidence	Response Level				
			Extended Abstract	Relational	Multistructural	Unistructural	Weak
2.1	1	<ul style="list-style-type: none"> <li>✓ A computer worm is a standalone malware computer program that <b>replicates itself in order to spread to other computers</b>. Often it uses a computer network to spread itself, relying on security failures on the target computer to access it</li> </ul>				<p><i>Clearly identify the reason. .replicates....</i></p> <p><i>(consider viruses)</i></p>	<i>Incorrect, irrelevant</i>
2.2	1	Discarded electrical or electronic devices or appliances such as mobile phones, computers and televisions.				<p><i>Clearly define e-waste</i></p>	<i>Incorrect, irrelevant</i>
2.3	2	<ul style="list-style-type: none"> <li>✓ Consumer recycling – sale, donating computers directly to organizations in need, sending devices directly back to their original manufacturers, or getting components to a convenient recycler or refurbisher.</li> <li>✓ Scrapping /recycling – computer parts are stripped of their most valuable components and sold for scrap.</li> <li>✓ Corporate recycling – Contacting the Original Equipment Manufacturers and arrange recycle options.</li> </ul>			<p><i>List more than one way of recycling computer materials</i></p>	<p><i>List one way of recycling computer material</i></p>	<i>Incorrect, irrelevant</i>
2.4	4	<ul style="list-style-type: none"> <li>✓ <b>Repetitive Strain Injury (RSI)</b> – used to describe the pain felt in muscles, nerves and tendons caused by repetitive movement and overuse. Poor posture or positioning can directly contribute to RSI, it is important that when using a computer for prolonged periods of time the mouse and keyboard are correctly and comfortably positioned –</li> <li>✓ <b>Back problems</b> – Prolonged sitting in a bad posture is likely to create or exacerbate back injuries. Correct seating position will mitigate this but avoiding prolonged use of a computer in a fixed position is desirable –</li> <li>✓ <b>Eye Problems and headaches</b> – Eye is not naturally designed to be used at a fixed focus for long periods of time and many types of screen project light towards the user rather than the more natural viewing of reflected light. To avoid eye problems include adjusting the brightness of your screen to surroundings and avoid</li> </ul>	<p><i>Mentioned three problems of health issues directly related to ICT equipment's and to mitigate using examples</i></p>	<p><i>Mentioned two problems of health issues directly related to ICT equipment's and to mitigate using examples</i></p>	<p><i>Mentioned one problem of health issues directly related to ICT equipment's or one way to mitigate using examples</i></p>	<p><i>Mentioned one problem of health issues directly related to ICT equipment's</i></p>	<i>Incorrect, irrelevant</i>

		<p>as screens beyond their designed resolution. The most common cause of headaches when using screens is eye-strain.</p> <p>Advise:</p> <ul style="list-style-type: none"> <li>✓ Good posture and positioning</li> <li>✓ Comfort</li> <li>✓ Encouraging movement and exercise</li> </ul> <p>Taking breaks</p>					
2.5	3	<p><b>Malware</b> software which is specifically designed to disrupt, damage, or gain authorized access to a computer system whereas <b>Trojan</b> is a type of malware that is often disguised as legitimate/ genuine software. Trojans can be employed by cyber-thieves and hackers trying to gain access to users' systems</p>		<p><i>Define and differentiate both phishing techniques</i></p>	<p><i>List two phishing techniques</i></p>	<p><i>List a phishing technique</i></p>	<p><i>Incorrect, irrelevant</i></p>
2.6	1	<p>The process of converting information or data into a code especially to prevent unauthorized access.</p>				<p><i>Clearly define (mentioned of binary numbers)</i></p>	<p><i>Incorrect, irrelevant</i></p>
2.7	3	<p>The necessity of encryption of hard drives is to protect data being accessed or retrieved by unauthorized person when the hard drive is stolen. Hard- drive encryption is a technology that encrypts the data stored on a hard drive using sophisticated mathematical functions.</p>		<p><i>Clearly explain necessity of encryption of hard drives</i></p>	<p><i>Identify necessity of encryption of hard drives</i></p>	<p><i>Identify basic idea of encryption</i></p>	<p><i>Incorrect, irrelevant</i></p>

### STRAND 3: PROGRAMMING

Item No.	Skill Level	Evidence	Response Level				
			Extended Abstract	Relational	Multistructural	Unistructural	Weak
3.1	1	Programming is the implementation of logic to facilitate specified computing operations and functionality.				State one process	Incorrect, irrelevant
3.2	1	<ul style="list-style-type: none"> <li>✓ The programs and other operating information used by a computer</li> <li>The programs and instructions that run a computer as opposed to the actual physical machinery &amp; devise that compose the hardware</li> </ul>				Clearly define	Incorrect, irrelevant
3.3 a)	1	<ul style="list-style-type: none"> <li>✓ Program specification</li> <li>✓ Program design</li> <li>✓ Program code</li> <li>✓ Program test</li> <li>✓ Program documentation</li> <li>✓ Program maintenance</li> </ul>				Correctly ordered / layout	Incorrect
3.3 b)	2	<ul style="list-style-type: none"> <li>✓ Program specification- Understand the problem</li> <li>✓ Program design - Plan the logic</li> <li>✓ Program code - Code the program</li> <li>✓ Program test - Translate the program into machine language</li> <li>✓ Program documentation - Test the program</li> <li>✓ Program maintenance - Put the program into production</li> </ul>			Two or more correctly described	At least one correctly described	Incorrect, irrelevant
3.4	3	<ul style="list-style-type: none"> <li>✓ Program flowcharts 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.</li> <li>✓ It is a great to improve work efficiency. There are 4 basic symbols in a program flowchart. Each symbol represents a piece of code written for the program.</li> </ul> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div style="text-align: center;">  Start         </div> <div style="text-align: center;">  Process         </div> <div style="text-align: center;">  decision         </div> <div style="text-align: center;">  End         </div> </div>		Clearly explain the flowcharts including symbols	State the flowcharts  <i>(consider drawing of flowcharts)</i>	Understand basic symbols	Incorrect, irrelevant

3.5	3	<p>Supported by structured programming languages with language elements to support the three ‘original’ logical structures:</p> <ul style="list-style-type: none"> <li>✓ <b>Sequence</b> - an action or event leads to the next ordered action in a predetermined order. Once running, the program must perform each action in order without skipping any</li> <li>✓ <b>Selection (also called decision)</b> – a question is asked and depending on the answer, the program takes one of two courses of action after which the program moves on to the next event. Sometimes refer to as an if-then-else because it directs the program to perform in this way: <b>If</b> Condition A is True <b>then</b> perform Action X <b>else</b> perform Action Y</li> <li>✓ <b>Iteration (Loops)</b> - is a single pass through a group / set of instructions. Most programs often contain loops of instructions that are executed over and over again. The computer repeatedly executes the loop, iterating through the loop.</li> </ul>		<p>List all three logical structures- sequence, selection and iteration</p> <p><i>(consider either iteration or repetition)</i></p>	<p>List two logical structures</p> <p>Either sequence and selection or selection and iteration or sequence and iteration</p>	<p>At least one logical structures</p> <p>Either sequence, selection or iteration</p>	<p>Incorrect, irrelevant</p>
3.6	1	<p>Program testing - Translate the program into machine language</p>				<p>Clearly define the term</p>	<p>Incorrect, irrelevant</p>

## STRAND 4: WEBSITE DESIGN AND DEVELOPMENT

Item No.	Skill Level	Evidence	Response Level				
			Extended Abstract	Relational	Multistructural	Unistructural	Weak
4.1	1	A set of related web pages located under a single domain name				Clearly define the term	Incorrect, irrelevant
4.2	1	Domain = usp <i>also consider ( www.usp.org.ac)</i>				Correct answer	Incorrect, irrelevant
4.3	2	<p>&lt;p&gt;This is page 1 content &lt;a href="http://www.education.gov.fj"&gt;page 1&lt;/a&gt;.&lt;/p&gt;</p> <p>&lt;p&gt;This is page 2 content &lt;a href="http://www.scholarship.edu.au"&gt;page 2&lt;/a&gt;.&lt;/p&gt;</p> <p>&lt;p&gt;This is page 3 content &lt;a href="http://www.career.ac.nz"&gt;page 3&lt;/a&gt;.&lt;/p&gt;</p>			Write the three simple HTML for three page website  <i>(consider a href )</i>	Write a simple HTML code	Incorrect, irrelevant
4.4	3	<pre>&lt;html&gt; &lt;body&gt; &lt;a name="top"&gt;The top of the page&lt;/a&gt; &lt;br /&gt;&lt;br /&gt; &lt;a href="#bottom"&gt;Jump to the bottom of the page&lt;/a&gt; &lt;p&gt;Some text&lt;/p&gt; &lt;p&gt;Some text&lt;/p&gt; &lt;p&gt;Some text&lt;/p&gt;</pre>		All three correct answer	Two correct answer  <i>(Consider answers without symbol #)</i>	At least one correct answer	Incorrect, irrelevant

		<pre> &lt;p&gt;Some text&lt;/p&gt; &lt;p&gt;Some text&lt;/p&gt; &lt;p&gt;Some text&lt;/p&gt; &lt;p&gt;Some text&lt;/p&gt; &lt;a href="#top"&gt;Jump to the top of the page&lt;/a&gt; &lt;br /&gt;&lt;br /&gt; &lt;a name="bottom"&gt;The bottom of the page&lt;/a&gt; &lt;/body&gt; &lt;/html&gt; </pre>					
4.5	1	<ul style="list-style-type: none"> <li>✓ An improper URL entered for the link by the website owner</li> <li>✓ The destination website removed the linked web page (causing what is known as 404 error)</li> </ul>				<i>Mentioned one reason</i>	<i>Incorrect, irrelevant</i>
4.6	4	<p>WHAT THESE TOOLS TEST</p> <p>Most of the free validators allow you to test in up to three different ways, depending on the location of the files being tested and the particular validator being used:</p> <ul style="list-style-type: none"> <li>• <b>Validate by URL:</b> To test by URL, you must upload the page you're testing to a live, working server before you can use that URL in the validator. This means you could upload the files to a testing server or a hidden directory on the actual server that will be hosting the site, such as <code>http://www.mywebsite.com/test</code>, and validate by URL from there.</li> <li>• <b>Validate by upload:</b> This method allows you to browse for (on a local computer or at some remote destination), select, and upload a single HTML file for validation.</li> <li>• <b>Validate by direct input:</b> To test the code on a single web page before that file has been uploaded to a host server, copy the entire document — from DTD to closing <code>&lt;/html&gt;</code> tag — and paste it into the Direct Input or other appropriate testing text area on the desired online validation page.</li> </ul>	<i>Mentioned steps to be carry-out to validate complex HTML and CSS code</i>	<i>Mentioned of steps to be carry-out to validate simple HTML and CSS code</i>	<i>Mentioned steps to be carry-out to validate simple HTML or CSS code</i>	<i>Mentioned of HTML and CSS code</i>	<i>Incorrect, irrelevant</i>

## STRAND 5: MICROPROCESSOR CONTROL

Item No.	Skill Level	Evidence	Response Level				
			Extended Abstract	Relational	Multistructural	Unistructural	Weak
5.1	2	<p>A computer is an electronic device that accepts inputs data, stores the data, does arithmetic and logic operations and provides the outputs in desired format.</p> <p>The storage unit of a computer performs the following functions:</p> <ul style="list-style-type: none"> <li>• Stored data and instructions which are entered through input devices</li> <li>• Stores an intermediate result processing</li> <li>• Store the final result of processing before these results are passed to an output device.</li> </ul> <p>The function of the CPU:</p> <ul style="list-style-type: none"> <li>• Read instruction from memory</li> <li>• Communicate will all peripherals using the system bus</li> <li>• Controls the sequence of instructions</li> <li>• Controls the flow of data from one component to another component</li> <li>• Performs the computing task specified in the program.</li> </ul>			<p><i>Mentioned of interaction between processing and storage of microprocessor</i></p> <p><i>(consider process: Input , Process, output)</i></p>	<p><i>Mentioned of interaction processing or storage of microprocess or</i></p>	<p><i>Incorrect, irrelevant</i></p>
5.2	3	<p>Hardware and software are interconnected, without software, the hardware of a computer would have no function. However, without the creation of the hardware to perform tasks directed by software via the CPU, software would be useless.</p> <p>Hardware is limited to specifically designed tasks that are, taken independently, very simple. Software implements algorithms (problem solutions) that allow the computer to complete much more complex tasks.</p>		<p><i>Clearly explain the function of hardware when software controls the processing</i></p>	<p><i>Identify the function of hardware when software controls the processing</i></p>	<p><i>List a function of hardware</i></p>	<p><i>Incorrect, irrelevant</i></p>
5.3	1	<p>A computer programming language consisting of binary or hexadecimal instructions which a computer can respond to directly.</p>				<p><i>Clearly define the term</i></p>	<p><i>Incorrect, irrelevant</i></p>

5.4	3	<p>High level language is a programming language that uses English and Mathematical symbols in its instruction. To execute a program in a high level language, it can be compiled or interpreted.</p> <p>A compiler translates the entire program written in a high-level language to machine language prior to execution.</p>		<p><i>Mentioned of high level programming language , execution and compiler tasks</i></p>	<p><i>Explain how a program is written in high level</i></p>	<p><i>Define high level programming language</i></p>	<p><i>Incorrect, irrelevant</i></p>
5.5	1	<p>The CPU is simply a dedicated microprocessor that only executes software instructions. So in designing a CPU, the first thing that we need to do is to define its instruction set and how they are encoded.</p>				<p><i>Clearly define the term</i></p>	<p><i>Incorrect, irrelevant</i></p>
5.6	2	<p>Using interrupts allows the software to response quickly to changes in the external environment.</p> <p>The Input-Output (I/O) devices or peripherals provide the necessary data communications link between the microprocessor and its environment. Typically, information is accepted from the input devices, it is processed and the results of the data processing are then sent to one or more output devices. In a microprocessor system, the input-output operations are particularly important since, in the majority of applications, the microprocessor spend the greatest part of its time interacting with the I/O devices.</p> <p>The operation of the I/O devices is usually independent of that of the microprocessor and a procedure must be adopted to the synchronise program execution with their operation input-output according to the method of controlling and synchronizing data transfer:</p> <ul style="list-style-type: none"> <li>✓ Program-controlled I/O</li> <li>✓ Interrupt – controlled I/O</li> <li>✓ Direct-memory-access I/O</li> </ul> <p>The type of input-output used in a particular application will depend on the three main factors;</p> <ol style="list-style-type: none"> <li>a) The rate at which data must be transmitted</li> <li>b) The maximum time delay which can be accepted between the I/O device signaling its readiness to transmit or receive data and the data transfer actually taking place</li> </ol> <p>The feasibility of interleaving input-output and other microprocessor operations.</p>			<p><i>Describe response from microprocessor when change occurred in its environment</i></p> <p><i>(consider examples given like alarm, air-condition etc)</i></p>	<p><i>List a response from microprocess or when change occurred in its environment</i></p>	<p><i>Incorrect, irrelevant</i></p>