



EDUCATIONAL QUALITY AND ASSESSMENT PROGRAMME



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Scoring Rubric 2024

**South Pacific
Form
Seven
Certificate**

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| Item No. | Skill Level | Evidence | Response Level | | | | |
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| | | | Extended Abstract | Relational | Multistructural | Unistructural | Weak |
| 1.1 | 1 | <p>Which of the following is an example of a proprietary software?</p> <p>A. Microsoft Office B. Firefox web browser C. Linux operating system D. Open Office Writer.</p> <p>A. Microsoft Office</p> | | | | <p>State the correct example of Proprietary software.</p> <p>A. Microsoft Office</p> | <p>Incorrect, irrelevant</p> |
| 1.2 | 1 | <p>State one feature of using Proprietary software that could support XYZ Corporation in managing inventory accurately.</p> <ul style="list-style-type: none"> <i>In relation to a feature of using proprietary software that could support XYZ Corporation in managing inventory accurately is automated inventory tracking and alerts. This feature would allow XYZ Corporation to automatically update inventory levels in real-time and receive notifications when stock levels are low or when reordering is needed</i> | | | | <p>States a feature of Proprietary software.</p> | <p>Incorrect, irrelevant</p> |
| 1.3 | 2 | <p>Describe one major purpose of open-source software movement in the field of software development.</p> <ul style="list-style-type: none"> <i>One major purpose of the movement for open-source software is to promote</i> | | | <p>Describe one major purpose of open-source software movement. / List two purposes of open-source software movement without</p> | <p>State one major purpose of open-source software movement.</p> | <p>Incorrect, irrelevant</p> |

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| | | <p><i>collaboration and transparency in the development process, fosters a culture of sharing and learning, as developers can freely access and modify the source code of a project.</i></p> <ul style="list-style-type: none"> <i>This fosters a sense of community and collective effort, leading to more robust and efficient software solutions.</i> <p><i>Additionally, open-source software helps to democratize access to technology, as it is often freely available for individuals and organizations to use and modify according to their needs.</i></p> | | | linkage. | | |
| 1.4 | 3 | <p>Explain how digital media has impacted student learning experiences and access to diverse perspectives in Pacific countries.</p> <ul style="list-style-type: none"> <i>Digital media has had a significant impact on students' learning experiences by providing access to a wealth of information and diverse perspectives that were previously not easily accessible. With the internet and various online platforms, students are able to conduct research, access educational resources, and interact with individuals from around the world.</i> <i>One of the main ways digital media has impacted students' learning experiences is through the access to diverse perspectives. Through social media, online forums, and digital publications, students can engage with individuals from different backgrounds,</i> | | <p><i>Explain how digital media has impacted students learning experiences with linkages.</i></p> | <p><i>Describe one way how digital media has impacted students learning experiences / List two ways how digital media has impacted students learning experiences without linkage.</i></p> | <p><i>State one way how digital media has impacted students learning experiences.</i></p> | <p><i>Incorrect, irrelevant</i></p> |

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| | | <p><i>cultures, and viewpoints, which can broaden their understanding of various subjects and issues. This exposure to diverse perspectives can spark critical thinking and encourage students to consider alternative viewpoints when forming their own opinions.</i></p> <ul style="list-style-type: none"> <i>In addition, digital media has also made it easier for students to collaborate with their peers and educators, regardless of physical location. Online tools such as video conferencing, collaborative document editing, and online discussion forums enable students to work together on projects, share ideas, and receive feedback in real-time. This level of collaboration and interaction can enhance the learning experience and allow for more meaningful learning outcomes.</i> <i>Overall, digital media has revolutionized the way students learn and acquire information by providing access to a vast array of resources and diverse perspectives. This has enabled students to engage with content in a more interactive and dynamic way, ultimately enhancing their learning experiences and preparing them for success in an increasingly digital world.</i> | | | | | |
| 1.5 | 3 | Explain one importance of using key features of audio processing software by ABC Production in creating audio files for producing music to their clients in the entertainment industry. | | <i>Explain one importance of using key features with linkages.</i> | <i>Describe one importance of using key features / List two importance of the key features without linkage.</i> | <i>State one importance of using key features.</i> | <i>Incorrect, irrelevant</i> |

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| | | <ul style="list-style-type: none"> • One importance of using key features of audio processing software by ABC Music Production in creating audio files for producing music to their clients in the entertainment industry is the ability to enhance the quality of the audio recordings. • By utilizing features such as noise reduction, equalization, compression, and reverb, ABC Music Production can ensure that the audio files they create are of the highest quality possible. These key features of audio processing software allow producers at ABC Music Production to clean up any background noise, adjust the frequencies of the audio tracks, control the dynamic range of the recordings, and add depth and space to the sound. This ensures that the final audio files are professional and polished, meeting the high standards of the entertainment industry. • By using these key features, ABC Music Production can create audio files that are clean, clear, and sonically pleasing to their clients, ultimately enhancing the overall production value of the music they produce. This, in turn, helps ABC Music Production maintain their reputation as a top music production company in the industry and attract new clients seeking high-quality audio production services. | | | | | |
| 1.6 | 4 | Discuss the significance of the evolution of digital audio and how it continues to impact the | <i>Discusses the significance of the evolution of</i> | <i>Explains the significance of the evolution of</i> | <i>Describes one significance of the evolution of digital audio</i> | <i>States one significance of the evolution of digital</i> | <i>Incorrect, irrelevant</i> |

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| | <p>audio technology sector as mentioned above.</p> <p><i>The development of digital audio technology has transformed the creation, distribution, and consumption of audio content, which has had a major impact on the audio technology sector. The development of high-quality audio recordings with more clarity and quality made possible by digital audio technology has made it simpler for producers and artists to make music and other audio content.</i></p> <p><i>Furthermore, the distribution of audio content has changed as a result of the development of digital audio technology. The rise of music streaming services and online platforms has provided customers with quick access to a massive collection of audio content. Customers can now find and enjoy new music more easily, and this has also brought up new chances for artists to connect with more people.</i></p> <p><i>Digital audio technology's influence on the audio business has also been caused by the widespread use of smartphones and other mobile devices. The ease with which consumers can now acquire and enjoy audio content has caused a shift in the way that people listen to music and other audio content. As a result, there is an increasing need for easy, mobile device-compatible audio technologies.</i></p> <p><i>All things considered, the development of digital audio technology has had and will continue to have a significant influence on the audio technology industry through fostering innovation, influencing consumer behaviour, and influencing the production and distribution of audio material. It's possible that as technology develops, we'll witness even more advancements in digital audio technology and its impact on the audio industry in the years to come.</i></p> | <p><i>digital audio and how it continues to impact.</i></p> | <p><i>digital audio and how it continues to impact with linkages.</i></p> | <p><i>and how it continues to impact / List two significances of the evolution of digital audio without linkage.</i></p> | <p><i>audio.</i></p> | |
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| 2.1 | 1 | <p>What does LAN stand for in the context of networking?</p> <p><i>A. Local Area Network</i></p> | | | | <i>A. Local Area Network</i> | <i>Incorrect, irrelevant</i> |
| 2.2 | 2 | <p>List two components SMART Clothes shop web development team must include when creating online shop database-driven website.</p> <ul style="list-style-type: none"> • <i>A secure and reliable database management system (DBMS) to store and manage the website's data, with features such as data encryption, access control, and regular backups to ensure data integrity and availability.</i> • <i>Backup and recovery methods, such as regular automated backups, redundancy, and failover systems, to ensure that website data is safely backed up and can be quickly restored in case of data loss or system failure.</i> • <i>Server-side scripting language: Use a programming language like PHP, Python, or Ruby to communicate with the database and dynamically generate web pages based on the stored data.</i> • <i>Web server: Set up a web server, such as Apache or Nginx, to host the website and handle HTTP requests from users.</i> | | | <i>List two components that must be included.</i> | <i>States a component that must be included.</i> | <i>Incorrect, irrelevant</i> |

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| | | <ul style="list-style-type: none"> • <i>Front-end technologies: Use HTML, CSS, and JavaScript to create the user interface and interact with users.</i> <p><i>Data validation and security: Implement validation checks to ensure data integrity and protect against security threats such as SQL injection attacks.</i></p> | | | | | |
| 2.3 | 3 | <p>Explain one benefit that CSS has contributed to enhancing the overall performance and functionality of the company’s online platform.</p> <p><i>One benefit that CSS has contributed to enhancing the overall performance and functionality of the company’s online platforms is improved website loading speed. By using CSS to separate the style and layout of a website from its content, developers can optimize the performance of web pages by reducing the amount of code that needs to be loaded.</i></p> <p><i>CSS allows for more efficient coding practices, such as using external style sheets that can be cached by the browser, resulting in faster loading times for subsequent visits to the same website. Additionally, CSS enables developers to create responsive designs that adjust to different screen sizes, enhancing user experience and increasing overall website performance.</i></p> <p><i>By improving loading speed and optimizing website performance, CSS helps to create a more efficient and user-friendly online platform that can attract and retain customers, ultimately benefiting the company’s online presence and success.</i></p> | | <p><i>Explains one benefit CSS has contributed to enhancing the overall performance with linkage.</i></p> | <p><i>Describes one benefit CSS has contributed to enhancing the overall performance / Lists two benefits CSS has contributed to enhancing the overall performance without linkage.</i></p> | <p><i>States one benefit CSS has contributed to enhancing the overall performance.</i></p> | <p><i>Incorrect, irrelevant</i></p> |

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| 2.4 | 4 | <p>Discuss the differences between ring and star networks as network topologies, and recommend the network topology that would be the most suitable for Creative Connections with justification.</p> <ul style="list-style-type: none"> • <i>Ring Network Topology:</i> • <i>In a ring network topology, each device is connected to exactly two other devices, forming a closed loop. Data travels in one direction around the ring until it reaches its destination. One of the advantages of a ring network is that it is easy to install and maintain since each device only needs to be connected to its two neighbors. However, if one device in the network fails, the entire network can be affected.</i> • <i>Star Network Topology:</i> • <i>In a star network topology, each device is connected to a central hub or switch. All data traffic passes through the central hub, which can help to prevent network congestion and make it easier to troubleshoot issues. One disadvantage of a star network is that it relies heavily on the central hub, so if the hub fails, the entire network can go down.</i> • <i>Many modern businesses use star network topologies for their local area networks, as they are flexible and easy to manage</i> • <i>Recommendation for Creative Connections:</i> • <i>Based on the requirements of Creative</i> | <p><i>Discuss the differences between ring and star networks as network topologies with most suitable & one reason.</i></p> | <p><i>Explains the differences between ring and star networks as network topologies with most suitable without one reason.</i></p> | <p><i>Describe one difference between ring and star networks as network topologies without most suitable & without reason / List two differences between ring and star networks as network topologies without linkage/Lists one difference and one reason.</i></p> | <p><i>States one difference between ring and star networks as network topologies/State the most suitable/State one reason.</i></p> | <p><i>Incorrect, irrelevant</i></p> |
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| | | <p><i>Connections, which is a small and growing graphic design firm, a star network topology would be most suitable. This is because a star network is more scalable and flexible, which would be important for a business that may need to add more devices to the network as it grows.</i></p> <ul style="list-style-type: none"> <i>Additionally, a star network would provide Creative Connections with easier troubleshooting and management capabilities, which can be critical for a small business with limited IT resources. The centralized hub in a star network would also help to prevent network congestion, ensuring that the graphic designers at Creative Connections have a smooth and reliable network connection.</i> <i>Overall, a star network topology would offer Creative Connections the best balance of performance, scalability, and manageability for their growing business needs.</i> | | | | | |
| 3.1 | 3 | <p>With reference to the above, differentiate with examples the use of machine language and assembly language in the automotive industries.</p> <ul style="list-style-type: none"> <i>Machine language is a low-level programming language that is directly understood by a computer's CPU. It consists of binary code instructions that are specific to the hardware of the computer and are difficult for humans to read and write. In the automotive industry, machine language may be used in programming embedded systems</i> | | <i>Differentiates with examples the use of machine language and assembly language with linkages.</i> | <i>Describes one use of machine language and assembly language without example/ List two examples of using machine language and assembly language without linkage.</i> | <i>States one use/example only.</i> | <i>Incorrect, irrelevant</i> |

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| | | <p><i>within vehicles to control functions like engine management, transmission control, and braking systems. For example, machine language may be used to program the electronic control unit (ECU) that manages the engine in a car.</i></p> <ul style="list-style-type: none"> <i>Assembly language, on the other hand, is a low-level programming language that is a step up from machine language and uses mnemonic codes to represent machine-language instructions. Assembly language is more readable and easier to write than machine language, making it more accessible to programmers. In the automotive industry, assembly language may be used to program microcontrollers or embedded systems within vehicles to control functions like climate control, navigation systems, and entertainment systems. For example, assembly language may be used to program the infotainment system in a car.</i> <i>In summary, machine language is used for direct control of hardware in the automotive industry, while assembly language provides a more human-readable and accessible programming option for controlling various vehicle functions and systems.</i> | | | | | |
| 3.2 | 4 | <p>As a Project Manager, discuss- using examples, the advantages of applying problem-solving and decision-making skills in the workplace.</p> <ul style="list-style-type: none"> <i>Applying problem-solving and decision-</i> | <i>Discusses using the example as Project Manager, the advantages.</i> | <i>Explains using example as Project Manager, the advantages with linkage of</i> | <i>Describes using example as Project Manager, with one advantage / List two advantages of problem</i> | <i>States one advantage only.</i> | <i>Incorrect, irrelevant</i> |

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| | | <p><i>making skills in the workplace can bring several advantages. Firstly, it allows the Project Manager to efficiently address issues and find solutions in a timely manner. By analyzing the problem, identifying potential solutions, and making a decision, the Project Manager can effectively resolve the issue and prevent any negative impacts on the project or team.</i></p> <ul style="list-style-type: none"> • <i>Secondly, problem-solving and decision-making skills help improve productivity and efficiency in the workplace. By being able to quickly assess problems and make informed decisions, the Project Manager can keep the project on track and ensure that deadlines are met. This ultimately leads to better project outcomes and overall success.</i> • <i>Additionally, these skills can enhance communication and collaboration within the team. When the Project Manager is able to effectively solve problems and make decisions, team members feel confident in their leadership and are more likely to trust their judgment. This fosters a positive work environment where team members feel supported and motivated to work towards common goals.</i> • <i>Overall, applying problem-solving and decision-making skills in the workplace can lead to more successful project outcomes, improved team dynamics, and increased productivity. It is an essential skill set for any Project Manager to have in order to navigate</i> | <p><i>Uses examples to justify ideas.</i></p> | <p><i>ideas.</i></p> | <p><i>solving and decision-making skills.</i></p> | | |
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| | | <i>challenges and drive success in their projects.</i> | | | | | |
| 3.3 | 2 | <p>List two types of logic structures that are used by Ritz & Company to ease the workload of their project.</p> <p><i>Sequence, Selection and Loop/Iteration/Repetition structures, Flowcharts, Algorithms and Pseudocodes.</i></p> | | | <i>Lists two types of logic structures.</i> | <i>States one type of logic structure.</i> | <i>Incorrect, irrelevant</i> |
| 4.1 | 1 | <p>State a basic function of a component within a microprocessor that potentially cause devices to freeze or crash unexpectedly.</p> <p><i>One basic function of a component within a microprocessor that could potentially cause devices to freeze or crash unexpectedly is the ALU (Arithmetic Logic Unit). The ALU is responsible for performing arithmetic and logic operations on data within the microprocessor. If there is a problem with the ALU, it could lead to incorrect calculations or data processing, ultimately causing devices to freeze or crash.</i></p> <p><i>Other components of a microprocessor and their functions are as follows:</i></p> <ol style="list-style-type: none"> <i>1. Control unit: The control unit is responsible for coordinating and controlling the operations of the entire microprocessor. It fetches instructions from memory, decodes them, and controls the execution of these instructions.</i> <i>2. Registers: Registers are high-speed storage units within the microprocessor that temporarily store data, instructions, and memory addresses. Some</i> | | | | <i>State a basic function of a component.</i> | <i>Incorrect, irrelevant</i> |

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| | | <i>common types of registers include accumulator, program counter, instruction register, and memory address register.</i> | | | | | |
| 4.2 | 1 | <p>State one high-level programming language that meets the client's requirements mentioned above.</p> <p><i>The best high-level programming language that meets the client's requirements mentioned above would be Python. Python is known for its ease of maintenance, scalability, strong community support, and abundance of resources for learning and troubleshooting.</i></p> <p><i>Some other high level programming languages are C++, Java, VB.NET, Ruby, PHP & Java script.</i></p> | | | | <p><i>States one high level language in Programming.</i></p> <p><i>Any one of the following:</i></p> <ul style="list-style-type: none"> • <i>Python</i> • <i>C++,</i> • <i>Java,</i> • <i>VB.NET,</i> • <i>Ruby,</i> • <i>PHP &</i> • <i>Java script</i> | <i>Incorrect, irrelevant</i> |
| 4.3 | 3 | <p>Explain the different ways microprocessors and microcontrollers control and manage tasks in the washing machine.</p> <ul style="list-style-type: none"> • <i>Microprocessors and microcontrollers play a crucial role in controlling and managing tasks in a washing machine. Here are some of the key ways in which they do so:</i> • <i>Timer control: Microprocessors are used in washing machines to control the timing of different cycles such as wash, rinse, and</i> | | <i>Explains the different ways microprocessors and microcontrollers control and manage tasks in the washing machine with linkages.</i> | <i>Describes one way only microprocessors and microcontrollers control and manage tasks in the washing machine without linkage / List two ways microprocessors and microcontrollers control and manage tasks in the washing machine without linkage.</i> | <i>States one way only microprocessors and microcontrollers control and manage tasks in the washing machine.</i> | <i>Incorrect, irrelevant</i> |

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| | | <p><i>spin. They help in ensuring that each cycle runs for the right duration, and they can also provide options for users to customize the timing based on their preferences.</i></p> <ul style="list-style-type: none"> • <i>Sensor control: Microcontrollers are often used in washing machines to monitor various parameters such as water level, temperature, and load size. They can adjust the operation of the machine based on these inputs to ensure that the clothes are washed efficiently and without damage.</i> • <i>Motor control: Microcontrollers are also used to control the movement of the motor in the washing machine. They can adjust the speed and direction of the motor to ensure that the drum spins at the right speed during different cycles.</i> <p><i>Water level control: Some washing machines use microcontrollers to monitor and regulate the water level in the drum. They can adjust the amount of water entering the machine based on the load size, ensuring that the clothes are properly washed without excess water wastage.</i></p> <p><i>Display and user interface: Microprocessors are often used to provide a user-friendly interface on the washing machine. They can control the display panel, buttons, and LED indicators to provide information to the user about the current status of the machine and allow them to select different washing options.</i></p> <p><i>Overall, microprocessors and microcontrollers in washing machines work together to ensure that the</i></p> | | | | | |
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| | | <i>various tasks involved in the washing process are carried out efficiently, effectively, and according to the user's preferences.</i> | | | | | |
| 4.4 | 3 | <p>Explain one positive contribution of using programmable microprocessors in the medical field, particularly in the diagnosis of sickness by the medical professionals shown above.</p> <p><i>One positive contribution of using programmable microprocessors in the medical field is the development of advanced diagnostic tools. These tools are equipped with sophisticated algorithms and sensors that can accurately analyze data and provide insights into a patient's condition.</i></p> <p><i>This technology enables medical professionals to quickly and accurately diagnose illnesses, leading to more effective treatment and better patient outcomes.</i></p> <p><i>For example, programmable microprocessors are used in devices such as MRI machines, CT scanners, and ultrasound machines to generate detailed images of the inside of a patient's body. These images can help doctors identify abnormalities and make accurate diagnoses. Additionally, microprocessors are used in wearable devices and monitoring systems that can track a patient's vital signs and detect any abnormalities in real-time. This continuous monitoring can help medical professionals detect and address health issues before they become serious.</i></p> <p><i>Overall, the use of programmable microprocessors in the medical field has revolutionized the way diseases</i></p> | | <i>Explains one positive contribution of using programmable microprocessors with linkages.</i> | <i>Describes one positive contribution of using Programmable microprocessors / List two positive contributions of using programmable microprocessors without linkages.</i> | <i>States one positive contribution of using programmable microprocessor.</i> | <i>Incorrect, irrelevant</i> |

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| | | are diagnosed and treated, leading to improved patient care and outcomes. | | | | | |
| 4.5 | 4 | <p>With regards to the aviation safety, discuss the importance of error-free programs created for programmable microprocessors in order to manage difficult embedded devices such as airplane controllers.</p> <p><i>Error-free programs created for programmable microprocessors are absolutely essential in the field of aviation safety. Airplanes rely heavily on embedded devices such as airplane controllers to ensure smooth and safe flights. Any error in the program could potentially result in catastrophic consequences, as demonstrated by the image of a plane crash.</i></p> <p><i>For pilots, giving priority to error-free programs for programmable microprocessors is not just a recommendation, but a necessity. With hundreds of lives at risk on each flight, there is no room for error when it comes to the functioning of the aircraft's systems. These programs play a crucial role in managing and controlling the various functions of the airplane, from navigation to communication to engine control.</i></p> <p><i>In the event of a malfunction or error in the program, the consequences could be disastrous. Pilots may lose control of the aircraft, leading to a loss of life and property. Therefore, it is imperative that the programs running on programmable microprocessors are thoroughly tested and verified to ensure their</i></p> | <p><i>Discusses the importance of error-free programs created for programmable microprocessors</i></p> | <p><i>Explains the importance of error-free programs created for programmable microprocessors with linkages.</i></p> | <p><i>Describes one importance of error-free programs created for programmable microprocessors / List two importances of error-free programs created for programmable microprocessors without linkage.</i></p> | <p><i>States one importance of error-free programs created for programmable microprocessors</i></p> | <p><i>Incorrect, irrelevant</i></p> |

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| | | <p>reliability and accuracy.</p> <p>Furthermore, the complexity of modern aircraft systems makes it even more important to have error-free programs. With multiple systems interconnected and dependent on each other, a single error in one program could have a domino effect on the entire aircraft. This is why pilots must prioritize error-free programs for programmable microprocessors to ensure the safety of themselves and their passengers.</p> <p>Overall, the importance of error-free programs for programmable microprocessors in managing difficult embedded devices such as airplane controllers cannot be overstated. Aviation safety depends on the reliability and accuracy of these programs, and pilots must make it a top priority to ensure that they are error-free in order to prevent any potentially catastrophic consequences.</p> | | | | | |
| 5.1 | 1 | <p>Which of the following ethical concerns can lead to a lack of originality in academic work?</p> <p>C. Plagiarism</p> | | | | C. Plagiarism | Incorrect, irrelevant |
| 5.2 | 2 | <p>Outline two strategies to address concerns about security and privacy breaches when implementing digital platforms for online services in the Pacific Island countries.</p> <p>1) <u>Implement robust security measures such as:</u></p> <ul style="list-style-type: none"> Utilize encryption technology to protect sensitive information such as personal data | | | <p>Outlines two strategies to address concerns about security and privacy breaches.</p> | <p>States one strategy to address concerns about security and privacy breaches.</p> | Incorrect, irrelevant |

and financial details.

- *Implement multi-factor authentication for access to online platforms to ensure that only authorized individuals can access sensitive information.*
- *Regularly update and patch software to address any vulnerabilities that could be exploited by hackers.*
- *Conduct periodic security audits and assessments to identify and address potential security risks.*

2) Educate users on security best practices:

- *Provide regular training and awareness programs to users on how to protect their personal information and avoid falling victim to phishing scams and other cyber threats.*
- *Encourage users to create strong, unique passwords and to change them regularly.*
- *Advise users to be cautious when sharing personal information online and to only provide it to trusted sources.*
- *Establish clear policies and procedures for handling and storing sensitive information to ensure compliance with data protection regulations.*

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| | | <p>3) <u>Implementing Ethical Guidelines and Policies:</u> <i>This is to implement ethical guidelines and policies that govern the use of technology in Pacific countries. These guidelines and policies can outline acceptable and unacceptable behavior when it comes to using ICT, as well as provide guidance on how to address ethical dilemmas that may arise. By having clear guidelines in place, individuals and organizations can navigate the complex ethical landscape of ICT more effectively and proactively address ethical issues before they escalate.</i></p> | | | | | |
| 5.3 | 1 | <p>State a potential way to manage ICT waste in a school environment. <i>-One potential way to manage ICT waste in a school environment is to implement a recycling program for old and obsolete electronics. By partnering with electronic recycling companies or organizing electronic waste collection days, schools can ensure that ICT waste is properly disposed off in an environmentally-friendly way. Additionally, schools can encourage students and staff to donate old electronics for reuse or refurbishment, rather than throwing them away. By promoting awareness and providing convenient options for recycling and disposal, schools can effectively manage ICT waste in their environment.</i></p> | | | | <p><i>States a correct way to manage ICT waste</i></p> | <p><i>Incorrect, irrelevant</i></p> |

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| 5.4 | 4 | <p>Using the image depicted above, discuss the effectiveness of strategies used for addressing the heavy usage of electricity by ICT in urban areas.</p> <p><i>The image of a crowded city skyline illuminated by countless glowing lights effectively represents the heavy usage of electricity by ICT in urban areas. This visual depiction underscores the significant impact that technology and communication devices have on electricity consumption in modern society.</i></p> <p><i>In order to address this heavy usage of electricity by ICT, several strategies can be implemented. One effective strategy is promoting energy efficiency in ICT devices and infrastructure. This can be achieved through the use of energy-efficient components, software optimization, and intelligent power management systems. By reducing the energy consumption of ICT devices, a significant amount of electricity can be saved in urban areas.</i></p> <p><i>Another strategy is promoting renewable energy sources for powering ICT infrastructure. By transitioning towards renewable energy sources such as solar, wind, and hydropower, urban areas can reduce their dependence on fossil fuels and decrease their carbon footprint. This not only helps in mitigating the environmental impact of ICT usage but also ensures a more sustainable energy supply for the future.</i></p> <p><i>Additionally, implementing smart grid technologies can help optimize electricity distribution and consumption in urban areas.</i></p> | <p><i>Discusses the effectiveness of the strategies. (2 or more ideas with linkages and supported with examples)</i></p> | <p><i>Explains the effectiveness of the strategies with linkages.</i></p> | <p><i>Describes one effectiveness of the strategies / Lists two effectiveness of the strategies without linkage.</i></p> | <p><i>States one effectiveness of the strategies.</i></p> | <p><i>Incorrect, irrelevant</i></p> |
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| | | <p><i>Smart grids enable real-time monitoring and control of electricity usage, allowing for better management of peak demand periods and more efficient allocation of resources. By integrating ICT with energy infrastructure, cities can improve energy efficiency and reduce overall electricity consumption.</i></p> <p><i>Overall, the effectiveness of these strategies for addressing the heavy usage of electricity by ICT in urban areas will depend on the commitment of policymakers, businesses, and individuals to prioritize energy efficiency and sustainability. By implementing these strategies in conjunction with targeted policies and incentives, cities can significantly reduce their electricity consumption and move towards a more sustainable and resilient energy future.</i></p> | | | | | |
| 5.5 | 3 | <p>With reference to the picture given above, explain the importance of being aware of the health issues associated with the use of ICT.</p> <p><i>Being aware of the health issues associated with the use of Information and Communication Technology (ICT) is crucial for several reasons:</i></p> <p><i>Firstly, Personal health and well-being: Prolonged use of ICT devices such as computers, smartphones, and tablets can lead to a range of physical health problems including eye strain, repetitive strain injuries, and musculoskeletal disorders. Being aware of these issues can help individuals take proactive measures to prevent or mitigate these health</i></p> | | <p><i>Explains the importance of being aware of the health issues with linkages.</i></p> | <p><i>Describes one importance of being aware of the health issues / Lists two importance of being aware of the health issues without linkage.</i></p> | <p><i>States one importance of being aware of the health issues.</i></p> | <p><i>Incorrect, irrelevant</i></p> |

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| | | <p>problems.</p> <p>Secondly, Mental health: Excessive use of ICT and social media has been linked to mental health issues such as anxiety, depression, and addiction. Being aware of these risks can help individuals strike a healthy balance between their online and offline activities, and seek help if needed.</p> <p>Thirdly, Productivity: Poor ergonomics and health issues related to ICT can impact an individual's productivity and efficiency at work or school. By being aware of these issues, individuals can make adjustments to their work environment or habits to improve their productivity.</p> <p>Fourthly, Social relationships: Excessive use of ICT can also impact social relationships and interpersonal communication skills. Being aware of the potential negative effects on relationships can help individual foster more meaningful connections with others.</p> <p>Overall, being aware of the health issues associated with the use of ICT is crucial for maintaining a healthy and balanced lifestyle in the digital age. It can help individuals take proactive steps to protect their physical and mental well-being, as well as navigate the increasingly complex digital landscape responsibly.</p> | | | | | |
| 5.6 | 4 | <p>With reference to the case study and picture above, discuss the importance of Digital Millennium Copyright Act in preventing software piracy.</p> <p>The Digital Millennium Copyright Act (DMCA) plays a crucial role in preventing software piracy by providing a legal framework to protect the rights</p> | <p>Discusses the importance of Digital Millennium Copyright Act in preventing software piracy. (2 or more ideas with linkages</p> | <p>Explains the importance of Digital Millennium Copyright Act in preventing software piracy with linkage.</p> | <p>Describes one importance of Digital Millennium Copyright Act in preventing software piracy.</p> | <p>State ones importance of Digital Millennium Copyright Act in preventing software piracy.</p> | <p>Incorrect, irrelevant</p> |

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| | <p>of software developers and creators. With the rise of digital technologies and online platforms, the DMCA helps to combat illegal distribution and reproduction of copyrighted software through its provisions for takedown notices and enforcement actions against infringers.</p> <p>Discussing the importance of the DMCA in preventing software piracy can include exploring its role in safeguarding intellectual property rights, fostering innovation and creativity in the software industry, and promoting a fair and competitive market for software products. By upholding the principles of copyright law in the digital age, the DMCA helps to deter piracy, protect the interests of software developers, and promote a safe and secure digital environment for all stakeholders.</p> <p>-The Digital Millennium Copyright Act plays a crucial role in preventing software piracy by providing legal protection for digital works and enforcing penalties for copyright infringement. By enabling creators and businesses to take swift and decisive action against piracy, the DMCA fosters a more secure and fair digital marketplace, ensuring that innovators are able to profit from their creations and encouraging a culture of respect for intellectual property rights.</p> | <p>and supported with examples)</p> | | | | |
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