

2		24 (bits)	1PS
3		<ul style="list-style-type: none"> • (Image is stored as a) grid of pixels/2D Array of pixels • Number of bits represents the range of colours/bit depth • (unique) binary number for each colour • each pixel represented as a binary number/byte/bit <p style="text-align: right;">Any 2</p>	2KU
11		<ul style="list-style-type: none"> • The scope of a global variable is the entire program. (1) • The scope of a local variable is one subroutine. (1) 	2KU
12		<ul style="list-style-type: none"> • stores list of values • each element has the same data type • uses a single identifier • uses indexing • has fixed number of elements. <p style="text-align: right;">Any 2</p>	2KU
18	a	<ul style="list-style-type: none"> • Small physical size • Large (data storage) capacity • Low power requirements • Fast access times <p style="text-align: right;">Any 2</p>	2PS
18	e	Copyright, Designs & Patents Act	1PS
19	c	<ul style="list-style-type: none"> • Cache has faster access time than main memory (1) /shortens fetch time. (1) • Holds frequently used instructions (1) /short fetch time. (1) • Wider internal bus (1) therefore faster transfer. (1) • Cache is on the processor (1) /shorter fetch time (faster transfer). (1) <p style="text-align: right;">2 marks for any one valid bullet</p>	2KU
20	e	<ul style="list-style-type: none"> • The nature of the problem to be solved • Type of language (event-driven, etc) • Type of user interface • Type of hardware/OS • The current skills of the programming team • Features of the language (data types/functions/etc) • Portability of language • Any other valid <p style="text-align: right;">1 mark for one acceptable response</p>	1PS

22	a	i	<p>Fastest = HorseTimes(1)</p> <p>Loop from 2 to 5</p> <p>If HorseTimes (current) < Fastest then Set Fastest = HorseTimes (current) End of if statement Return to start of loop</p>	<p>1 mark for correct initialisation (accept assignment of large value)</p> <p>1 mark for correct loop structure (accept 1 to 5/loop terminator)</p> <p>1 mark for correct conditional structure</p> <p>1 mark for correct assignment</p>	4PS
22	a	ii	<ul style="list-style-type: none"> • Change the < sign to > (can also accept >=). • Change the initialisation value if appropriate eg slowest = 0. 		1PS
22	a	iii	Counting occurrences.		1PS
31	c	i	<ul style="list-style-type: none"> • Bandwidth consumption (1). This degrades the network performance by sending a large number of data packets in a short period of time (1) • Resource starvation (1). An attack which is intended to use resources that would bring the network down (1) • Programming flaws (1). This takes advantage of bugs in networking software (1) • Attacking the routers (1). This involves "hi-jacking" data packets and routing them to the target server, which then gets flooded with data packets, or re-directing them to false addresses (1) • Domain Name Server attacks (1). This involves sending a large number of DNS queries with a spoofed IP address of the target server (1) 	Any 2	2KU
31	d		<p>Allows them to...</p> <ul style="list-style-type: none"> • monitor e-mails • monitor telephone calls • check Internet history • access decryption keys/encrypted data • undertake undercover surveillance • Any other valid response 	Any 2	2KU
31	e		<ul style="list-style-type: none"> • <center> Tax Calculator </center> • <div align=center> Tax Calculator </div> • <p align="center"> Tax Calculator </p> <p>1 mark for correct open/close of tag (accept as valid alternative)</p> <p>1 mark for correct open/close of <center> OR <div align =center> OR <p align ="center"> tag</p> <p>1 mark for correct nesting of tags <u>and</u> no additional incorrect tags such as <head> or <title> ie <center></center></p>		3PS

Find Minimum

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SET minimum TO array[0]
FOR EACH element FROM array DO
    IF array[element] < minimum THEN
        SET minimum TO array[element]
    END IF
END FOR EACH
SEND minimum TO DISPLAY

```