

Annual Examinations for Secondary Schools 2022

YEAR 9	COMPUTING	MARKING SCHEME
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Directions to candidates:

Answer **ALL** questions on this paper.

The use of a flow chart template is permitted.

Calculators are **NOT** allowed.

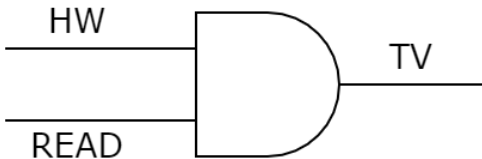
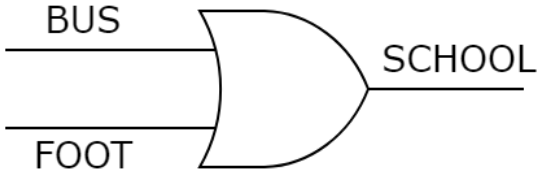
Good English and orderly presentation are important.

For office use only:

QUES	1	2	3	4	5	6	7	8	Final Mark
MAX	8	10	10	7	11	8	17	14	85%
MARK									

Question		Answer	Marks Allocation
1.	a)	False	[1]
	b)	True	[1]
	c)	False	[1]
	d)	False	[1]
	e)	False	[1]
	f)	False	[1]
	g)	False	[1]
	h)	True	[1]
			Total [8]

2.	a)	Speakers	[1]
	b)	Touch Screen	[1]
	c)	Printer	[1]
	d)	Graphic Tablet	[1]
	e)	Microphone	[1]
	f)	MICR	[1]
	g)	Headset	[1]
	h)	Barcode Reader	[1]
	i)	Scanner	[1]
	j)	Joypad / Gamepad / Joystick / game Paddle, etc. (Accept relevant answers)	[1]
			Total [10]

3.	a) i.		[3] {1 mark for correct symbol, one mark for correct mentioning of input and one mark for correct mentioning of output}
	a) ii.		[3] {1 mark for correct symbol, one mark for correct mentioning of input and one mark for correct mentioning of output}

	b)	A	B	C	d	e	f	Z	[4] {1 mark for every correct column}
		0	0	0	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	
		0	0	1	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
		0	1	0	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	
		0	1	1	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	
		1	0	0	<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>	
		1	0	1	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	
		1	1	0	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	
		1	1	1	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	
Total [10]									

4.	a)	Information is processed data. <i>(Accept relevant answers)</i>	[1]
	b)	Data is temperature reading from a sensor and info is the temperature being displayed on screen OR Data is the values taken from a log file and info is the visualization of trends in data. <i>(Accept relevant answers)</i>	[2] {1 mark for data example and 1 mark for info example}
	c) i.	Braille Keyboard or Eye Tracking Device, etc. with appropriate description of its use. <i>(Accept relevant answers but not special I/O devices which are not used for inputting and special I/O software such as voice recognition)</i>	[2] {1 mark for device and 1 mark for explanation}
	c) ii.	Voice recognition scans voice and performs actions accordingly. <i>(Accept relevant answers but not special I/O software which are not used for inputting, such as Zooming feature and special I/O devices)</i>	[2] {1 mark for device and 1 mark for explanation}
			Total [7]

5.	a) i.	11000011 ₂	[1]
	a) ii.	C3 ₁₆	[1]
	a) iii.	210 ₁₀	[1]
	b)	Analogue Component: Motion Sensor Digital Component: Monitor / Display	[2] {1 mark for analogue component and 1 mark for digital component}

c)	<pre> graph TD START([START]) --> READ[/READ TEMPERATURE/] READ --> DISPLAY[/DISPLAY TEMPERATURE/] DISPLAY --> D1{Temperature < 17?} D1 -- YES --> HON[HEATING ON] HON --> READ D1 -- NO --> D2{Temperature > 24?} D2 -- YES --> HOFF[HEATING OFF] HOFF --> READ D2 -- NO --> READ </pre> <p>(Accept other relevant sequence)</p>	<p>[6]</p> <p>{½ mark for each symbol in correct sequence [3.5 marks],</p> <p>½ mark for each correct decisions YES/NO indications [1 mark],</p> <p>½ mark for each correct loop [1.5 marks]}</p>
		Total [11]

6.	web browser, homepage, URL, HTTPS, username, password, log in, Favourites	<p>[8]</p> <p>{1 mark for each word in correct sequence}</p>
		Total [8]

7.	a)	5200 MHz or 5.2 x 1000 MHz	<p>[2]</p> <p>{1 mark for correct speed and 1 mark for converting to MHz}</p>
	b)	1 TB	[1]
	c)	8 GB	[1]
	d)	Read and Write, and Volatile. (Accept other relevant characteristics)	<p>[2]</p> <p>{1 mark for each characteristic}</p>
	e)	ROM is read only, OR Rom is nonvolatile, OR ROM is used to store the bootstrap loader. (Accept other relevant differences)	[1]
	f)	ROM used to store the bootstrap loader OR used as an internal storage in a dedicated system, etc. (Accept other relevant uses)	[1]
	g)	Windows 10	[1]
	h)	Laser Printer because it is fast and prints in high quality. (Accept other reasons but do not accept other type of printers)	<p>[2]</p> <p>{1 mark for type of printer and 1 mark for explanation}</p>

	i)	Vector graphics do not lose quality when enlarged. (Accept other relevant advantage)	[1]
	j)	2 MB OR 2048/1024 MB	[1]
	k)	Pen Drive, Flash Memory, External Hard Disk, CD, DVD, etc. (Do not accept cloud storage as this is a service and not a storage device)	[1]
	l)	Defragmenter or Scan Disk with an appropriate description. (Accept other relevant utilities but do not accept utilities that are not used to maintain the performance of a computer such as file compression tool)	[2] {1 mark for system Utility and 1 mark for its use}
	m)	Clipboard	[1]
			Total [17]

8.	a)	Plant No.	[1]
	b)	Price EUR	[1]
	c)	True/False OR Boolean	[1]
	d)	Because Plant No. does not require any arithmetic calculations.	[1]
	e) i.	Supplier no. included in the Plants table	[2] {1 mark for field and 1 mark for table}
	e) ii.	ONE : MANY	[1]
	e) iii.	ONE : ONE	[1]
	f) i.	Quantity	[1]
	f) ii.	Number	[1]
	f) iii.	Plant	[1]
	g)	Serial: slow, all elements/records must be read. Direct: fast, no need to access any previous element/record. (Accept other relevant differences)	[1]
	h)	Direct Access because it allows for a faster search feature. (Accept other relevant explanation)	[2] {1 mark for access method and 1 mark for explanation}
			Total [14]