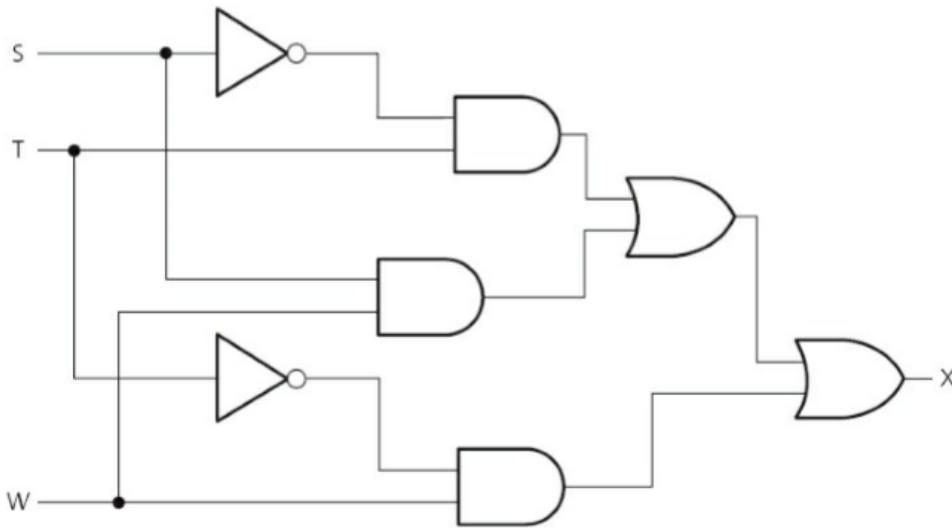


Grade 12 Sub Markscheme

Question Number	Scheme	Marks
1 (a)	<p>(i) A peripheral which can accept data/allows data to be entered to a computer/processor as electrical pulses</p> <p>(ii) A peripheral which allows information to be reported by a computer after data has been processed/in human readable form (or in a form suitable for reprocessing by the computer at a later date)</p> <p>To give information from the computer/after processing</p> <p>(iii)</p> <ul style="list-style-type: none"> – To hold data when computer is switched off – To be able to reload data at a later time/for future use – To store extra copies in case of corruption of original 	1 1 1
(b)	<ul style="list-style-type: none"> – Portable hard drive/to store OS/Software/Files – Flash/Pen/Solid state pen drive/to transport files between home and school/backup/archive – CD/DVDRW drive/to store back ups/archive – floppy disk drive <p>(2 per –, max 2 –, max 4. Allow other examples with purpose)</p>	4
2	<ul style="list-style-type: none"> • barcode scanner/reader • keyboard/keypad • touch screen • weighing device • magnetic stripe reader/smart card reader 	3
3 (a)	<ul style="list-style-type: none"> – ROM is non volatile/RAM is volatile – Data held on ROM cannot be altered/Data held on RAM can be altered 	
(b)	<ul style="list-style-type: none"> – Bootstrap/boot program / BIOS – ...because it must be present when the computer is switched on 	2

4	<p>1 mark for name of device + 1 mark for reason</p> <p>scanner to produce an electronic/digital map version of the passport photograph (scans) into computer readable format</p> <p>digital camera/video camera to produce an electronic image of the passenger's face produces a similar format to the scanned image</p>	4
5	<p>input</p> <p>touch screen</p> <ul style="list-style-type: none"> - to choose where to sit in cinema - select payment options - select number of seats <p>keypad</p> <ul style="list-style-type: none"> - to input PIN - to input number of seats <p>magnetic stripe reader/card reader</p> <ul style="list-style-type: none"> - to read data from credit card/debit card when making payment <p>sensors</p> <ul style="list-style-type: none"> - to count/recognise money if paying by cash for tickets <p>output</p> <p>printer</p> <ul style="list-style-type: none"> - to print the tickets/receipt <p>screen</p> <ul style="list-style-type: none"> - instructions to the customer - show prices of tickets - show available seats on seating plan - show which films are showing that week <p>speakers</p> <ul style="list-style-type: none"> - to indicate an error or that purchase procedure is OK 	8

6



One mark for each correct gate with its correct input

7

7 (a)

	A	B	C	D
	primary memory storage	magnetic secondary storage	optical secondary storage	solid state secondary storage
DVD – RAM			✓	
ROM	✓			
hard disk		✓		
flash memory				✓

1 mark for each correct tick

4

(b)

(i) A

1

(ii) B

1

(iii) C / D (If both ringed here then still award a mark)

1

©

1 mark for a benefit and 1 mark for a drawback

benefit

- faster start up speed (no “spin-up” required)
- no moving parts (so more robust)
- very fast read write seek (latency) times
- doesn't require additional read/write hardware devices (just plugs into USB)
- can store data indefinitely provided that it is periodically refreshed

drawback

- vulnerable to magnetic fields and electrostatic charges
- limited write cycles
- more vulnerable to corruption if used as primary source of saving files
- because it is small, very easy to lose

1