

6-A-Day – Computer Science GCSE (39)

Q1

Item of data	Date	Integer	Real	String
The amount paid			✓	
The customer's card number				✓
The date of the payment	✓			

3

1 mark per row

Q2

Points may include:

- Need to be always available...
- ... shops and customers want to process payments quickly,
- ... if it goes down, there will be delays/customers lost etc...
- Need to always process payments accurately
- ... shops want to be confident that they will receive the payment
- ... customers do not want to be overcharged
- Need to be able to trust the security of the system
- ... that fraudulent purchases cannot be made
- ... that customers' personal details cannot be stolen/to prevent identity theft

6

High Level Response(5/6):

A detailed description of the need for reliability with a number of fully justified points.
There will be few if any errors in spelling, grammar and punctuation.
Technical terms will be used appropriately and correctly.

Medium Level Response (3/4):

Some reasons why reliability is needed are explained, but some explanations may not be detailed.
There may be occasional errors in spelling, grammar and punctuation.
Technical terms will be mainly correct.

Low level response (1/2):

One or more reasons why reliability is needed are identified, but there is little or no explanation.
Information will be poorly expressed and there will be a limited, if any, use of technical terms. Errors of grammar, punctuation and spelling may be intrusive.

0 : Answer not worthy of credit

Q3

System information :

- displays important data about the current state of the computer
- e.g. temperature, free memory, network speed, % processor used

Diagnosis:

- attempts to detect/resolve items that are not working correctly
- e.g. missing drivers, network connection

4

1 mark each for explaining "system information" and "diagnosis" + 1 mark for each example – accept relevant examples, but not examples related to virus/malware for diagnosis.

Examples should be specific examples of the use of these utilities rather than general descriptions.

<p>Q4</p>	<p>System information :</p> <ul style="list-style-type: none"> • displays important data about the current state of the computer • e.g. temperature, free memory, network speed, % processor used <p>Diagnosis:</p> <ul style="list-style-type: none"> • attempts to detect/resolve items that are not working correctly • e.g. missing drivers, network connection 	<p>4</p>	<p>1 mark each for explaining "system information" and "diagnosis" + 1 mark for each example – accept relevant examples, but not examples related to virus/malware for diagnosis.</p> <p>Examples should be specific examples of the use of these utilities rather than general descriptions.</p>
<p>Q5</p>	<p>i • Solid state</p> <p>ii </p> <ul style="list-style-type: none"> • Fast access... • ... less delays when turning the device on/ turning pages etc... • No moveable parts/robust • ... can be handled/manipulated/moved without damaging it • Small/light enough... • ... to fit within a hand held device • low power • ...to extend battery life of reader 	<p>1</p> <p>2</p>	<p>No follow through from (i). Candidates need to identify a relevant characteristic of solid state storage for the first mark, and expand by explaining why this is an advantage in an e-book reader for the second mark.</p> <p>Note that portable/capacity are not acceptable answers here (as solid state storage is not particularly more portable/larger than other forms of storage for this application)</p>
<p>Q6</p>	<p>i eg</p> <ul style="list-style-type: none"> • Cheap to produce • Easily portable / Fits in a magazine • Enough capacity for e-books • Can be read by other devices e.g. computers • Read only / can't write over <p>ii </p> <ul style="list-style-type: none"> • optical 	<p>2</p> <p>1</p>	<p>Note that portable/capacity are acceptable answers here (as they are relevant characteristics of a CD ROM)</p> <p>Do not accept "compact" (unless portability is clearly implied)</p>