ENGLAND GCSE COMPUTER SCIENCE AQA · UNIT 4 · 25 QUESTIONS

Networks, Cyber Security, Databases and Impacts — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A games console is hit by a denial of service attack. What has happened?**

- **A** A fake email has tricked a user into giving away details
- **B** Every possible password has been tried until the right one is found
- **C** A program has copied itself by attaching to files
- **D** Its server has been flooded with requests until it stops working

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2 **A laptop receives a fake email asking for its password. What is this attack called?**

- A A Trojan pretending to be a real program
- B A denial of service attack
- C A brute force attack
- D Phishing

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3 **A tablet is used to copy a song without permission. What law protects the creator of the song?**

- A The law on e-waste
- B Data protection law
- C Copyright
- D The Computer Misuse Act

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4 **A keyboard types an SQL query. What does SELECT * FROM pupils return?**

- A Only the names of all pupils
- B Only the number of pupils
- C Only the first pupil
- D All fields for all pupils

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5 **A smartphone has a 4 digit PIN. How many different PINs are possible?**

- A 10000
- B 1000
- C 9999
- D 100000

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6 **A robot is locked by ransomware. What has the ransomware done?**

- A It has copied itself by attaching to files, in some situations
- B It has pretended to be a real program
- C It has watched what the user types
- D It has locked the files until a payment is made

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7 **What is biometric authentication?**

- A Checking identity using a password only
- B Checking identity using a body feature such as a fingerprint
- C Checking identity using a code sent by email, in some situations
- D Checking identity using a security question

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8 **A network connection has a bandwidth of 160 megabits per second. How many megabytes per second is this? There are 8 bits in a byte.**

- A 200
- B 160
- C 20
- D 19

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9 **What is a table in a database?**

- A A set of records about one kind of thing, shown in rows and columns
- B A single piece of data in a record, which is one possibility in some situations
- C A single record about one thing
- D A file stored on a hard disk

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10 **A PIN is 4 digits long and each digit can be 0 to 9. How many different PINs are possible?**

- A 100,000
- B 9,999
- C 1,000
- D 10,000

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11 **What is a client in a network?**

- A A program that starts the computer
- B A computer that provides a service to other computers
- C A cable that connects computers together
- D A computer that asks a server for a service

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12 **A star network has 12 computers, each connected to the central switch by one cable. How many cables are needed?**

- A 120
- B 11
- C 12
- D 13

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13 **A mesh network has 8 computers and every computer is connected to every other computer. How many links are needed?**

- A 29
- B 28
- C 27
- D 280

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14 **What is network topology?**

- A The way computers are connected together in a network
- B The number of files stored on a network
- C The speed at which data travels in a network, in some situations
- D The program used to start a network

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15 **A database table has 100 records and each record has 6 fields. How many values does the table hold in total?**

- A 606
- B 6,000
- C 594
- D 600

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16 **What is e-waste?**

A Electronic devices thrown away when they are no longer wanted

B Waste heat from a computer that is running, in some situations

C Waste data stored on a hard disk

D Waste paper from printing documents

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17 **A database table holds pupils with ages 10, 12, 13, 16. A query returns only pupils older than 12. How many records does the query return?**

A 1

B 2

C 30

D 3

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18 **What is bandwidth?**

A How many computers are on a network, which can happen in some cases

B How long a network cable is

C How much data can be sent over a network in a given time

D How far a network signal can travel

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19 **A file of 200 MB is downloaded at 50 MB per second. How many seconds does the download take?**

A 3

B 40

C 5

D 4

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20 **What does the SQL query SELECT name FROM pupils WHERE age > 12 return?**

- A The names of pupils older than 12
- B The names of pupils aged 12 or younger
- C The ages of pupils older than 12
- D The names of all pupils in the database

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21 **What is social engineering?**

- A Writing a program that harms a computer
- B Guessing a password by trying every possible one
- C Flooding a server with requests until it stops working, in some situations
- D Tricking a person into giving away information or access

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22 What is the difference between HTTP and HTTPS?

- A HTTPS works only on wireless networks, in some situations
- B HTTPS needs no web server at all
- C HTTPS is faster than HTTP
- D HTTPS encrypts the data, HTTP does not

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23 Why should files be backed up?

- A So they take up less storage space
- B So they can be shared with more people
- C So they run faster when they are opened, which can happen in some cases
- D So they can be restored if they are lost or locked by ransomware

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24 **A network connection has a bandwidth of 80 megabits per second. How many megabytes per second is this? There are 8 bits in a byte.**

- A 9
- B 10
- C 100
- D 80

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25 **A PIN is 3 digits long and each digit can be 0 to 9. How many different PINs are possible?**

- A 100
- B 10,000
- C 999
- D 1,000

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ANSWER KEY

1.	D	**10.**	D	**19.**	D
2.	D	**11.**	D	**20.**	A
3.	C	**12.**	C	**21.**	D
4.	D	**13.**	B	**22.**	D
5.	A	**14.**	A	**23.**	D
6.	D	**15.**	D	**24.**	B
7.	B	**16.**	A	**25.**	D
8.	C	**17.**	B		
9.	A	**18.**	C		

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