D2.1 – Protecting Data 1

Class Tasks

MARK SCHEME

# Class Task 1 – Permissions and Access

## Question 1.1

What is authentication? (***1 mark***)

The process that checks that a username matches a password / checks the login credentials of a user / makes sure the user logging in is who they say they are

## Question 1.2

What are the three most common types of file permissions? (***3 marks***)

Read

Write

Execute

## Question 1.3

In a school or college running the BTEC AAQ in IT, what kind of file permissions would a student be expected to have? (**1 mark**)

Read Only

# Class Task 2 – Backups

## Question 2.1

What is data redundancy? (***1 mark***)

It is where (an organisation has) two or more copies of the data / more than one copy of the data.

## Question 2.2

What are the drawbacks of maintaining data redundancy? (**3 marks**)

Extra storage is required (which will cost money) (1)

There might be different versions of data in different locations (1)

The redundant data might be out of synch (1)

It will be difficult to know which version is the correct version (1)

If the redundant version are out of date it will be difficult to check data accuracy

## Question 2.3

## Question 2.4

## Question 2.5

## Question 2.6

## Question 2.7

## Question 2.8

## Question 2.9

## Question 2.10

## Question 2.11

## Question 2.12

## Question 2.13

## Question 2.14

## Question 2.15

## Question 2.16

# Class Task 3 – Passwords and MFA

## Question 3.1

## Question 3.2

## Question 3.3

## Question 3.4

## Question 3.5

## Question 3.6

## Question 3.7

## Question 3.8

## Question 3.9

# Class Task 4 – Biometrics

## Question 4.1

## Question 4.2

## Question 4.3

# Class Task 5 – Physical Access

## Question 5.1

## Question 5.2

## Question 5.3

# Class Task 6 – Digital Certificates

## Question 6.1

## Question 6.2

## Question 6.3

# Exam Style Questions

## Question 1

Explain what is meant by ‘*authorisation*’? (***2 marks***)

|  |  |
| --- | --- |
| **Answer** | **Mark** |
| Award **one** mark for identification and **one** mark for an appropriate linked explanation/expansion up to a **maximum of two marks**.  The process that checks an authenticated user / follows a login procedure (1) that checks what a user is allowed to do / what permissions the user has (1)    **Accept any other appropriate/alternative response** | **(2)** |

## Question 2

Explain the difference between access rights and access permissions (**2 marks**)

|  |  |
| --- | --- |
| **Answer** | **Mark** |
| Award **one** mark for identification and **one** mark for an appropriate linked explanation/expansion up to a **maximum of two marks**.  Access rights determine which part of a system / folder / file a user can access (1) whereas permissions determine what a user can do with that system / file folder (1) including read, write or execute (1)  **Accept any other appropriate/alternative response** | **(2)** |

## Question 3

Explain **one** benefit of having data stored on RAID 0 discs? (***2 marks***)

|  |  |
| --- | --- |
| **Answer** | **Mark** |
| Award **one** mark for identification and **one** mark for an appropriate linked explanation/expansion up to a **maximum of two marks**.  data striping gives very fast read/write speeds (1) **because** data can be read/ write from multiple drives at the same time (1)  RAID 0 is not very expensive (1) **because** all drives are used for storage (1)  RAID 0 offers the most capacity (1) **because** the capacity is the total of all drives in the cluster (1)  **Accept any other appropriate/alternative response** | **(2)** |

## Question 4

## Question 5

## Question 6

## Question 7

## Question 8

## Question 9

## Question 10

## Question 11

## Question 12

## Question 13

## Question 14

## Question 15

## Question 16

## Question 17

## Question 18

## Question 19

## Question 20

## Question 21

## Question 22

## Question 23

*Logo, company name

Description automatically generated*

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