

Backup systems Worksheet Mark Scheme

1. The ICT manager of a large hospital is reviewing the backup and recovery systems for patients' records.

(a) Describe **four** factors that the manager must consider when designing backup procedures for this system.

(b) State **two** factors that the manager must consider when designing recovery procedures for this system. (8 marks) (2 marks)

(a)

- **Frequency of backup (1) consideration of what is suitable or not suitable(1)**
- **Timing of backup (1) consideration of what is suitable or not-suitable(1)**
- **Responsibility for ensuring back up completed (1) according to agreed procedures/ e.g. staff responsible network manager, shift leader etc (1)**
- **Backup media (1) consideration of what is suitable or not-suitable(1)**
- **Location of backup (1) consideration of what is suitable or not suitable(1)**
- **Security of backup (1) consideration of what is suitable or not-suitable(1)**
- **Type of backup (1) consideration of what is suitable or not-suitable(1)**
- **Testing of backup (1) to ensure that the patients records can be recovered (1)**

Any 4 × (2, 1, 0)

(b)

- **Testing of recovery plan**
- **Availability of staff to recover**
- **Training of staff to cope/staff know their rôle**
- **Availability of equipment**
- **Availability of software**
- **Availability of alternative site**
- **Availability of communication links**

Max 2

2. A student is working on an ICT project using the computers at her school and her own computer at home.

Describe a suitable backup procedure that the student could use. (4 marks)

- Take a copy(1)**
- onto a removable medium ALLOW EXAMPLE (NB NOT CD or CD-ROM or Magnetic Tape) /**
sent as an e-mail attachment /keep on hard drive or server if original kept on removable
medium (1)
- On a regular basis(1)**
- e.g. every week/ everytime project is worked on (1)**
- keeping a spare copy in a safe place(1)**
- test to see that the backup copy works (1) both at home and at school (1)**

max 4

3. State a medium that may be used for backing up each of the following files, and explain why it is suitable. (4 marks)

(a) A short, word-processed document

(b) A multimedia presentation

(a)

Floppy disk (Allow zip) /memory card/USB card/flash memory/pen drive (1), removable medium/does not require large capacity(NB Floppy disk only)/re-usable medium (1)

(b)

CD-R/W // CD-R // DVD-(+/-)R/W//DVD RAM // Zip disk //memory/USB card//flash memory / any removable hard disk (1), removable medium/needs large capacity (1) Allow Magnetic Tape but NOT CD, CD-ROM, DVD (4 marks)

4. Data can be encoded and encrypted.

(a) What is meant by the term encryption? (2 marks)

Max 2

(b)

Scrambling of data/secret code
 unauthorised viewers would not be able understand the data (as would not have decryption key)

Max 2

(2 marks)

Total: 20