

INFORMATION TECHNOLOGY

Time allowed: 1½ hours

Answer **TWO** questions. Each question answered will be worth 50 marks.

1

- a) Explain the terms Internet and Intranet and the differences between them. [8 marks]
- b) Suggest ways in which a company could make use of an Intranet, and why they might use the Intranet rather than some other communication method. [12 marks]
- c) Many companies make use of video conferencing for a variety of purposes. List three potential uses and discuss the advantages and disadvantages of video conferencing in the workplace. [12 marks]
- d) Your line manager asks you whether your company should store its company files 'in the cloud' rather than on a company fileserver. Describe the advantages and disadvantages of the two storage mechanisms mentioned.

Your answer should address data security and data accessibility, as well as other topics that you consider to be relevant.

[18 marks]

2

- a) Compare and contrast Google's suite of 'office tools' with more traditional tools such as Microsoft Office or LibreOffice. Your answer should address data security, functionality and data sharing, as well as any other topics that you consider to be relevant. [20 marks]
- b) Discuss how spreadsheets allow users to process data (rather than just store lists of data)? What benefits does this give to a user? [12 marks]
- c) What are the advantages and disadvantages of distributing documents as PDF rather than as editable file formats such as DOCX, ODP etc.? [18 marks]

... continued

3)

a) Name at least three different operating systems (and no more than one from any one company). Describe the purpose of an operating system.

[6 marks]

b) A computer fundamentally operates on the binary digits 0 and 1. Therefore, any character has to be encoded as a binary number. In ASCII the letter D has the decimal value 27. Give its value in:

i) Binary

ii) Hexadecimal

You should show your working.

[8 marks]

c) Convert the 16-bit binary number 01010100 11011001 to:

i) Hexadecimal

ii) Decimal

You should show your working.

[10 marks]

d) Explain the terms AND, OR, NOT and XOR. Give examples where each might be used.

[8 marks]

e) Create a complete logic table that describes:

A AND (NOT B OR C)

[8 marks]

f) Explain how the different number bases used in IT affect consumers with respect to the storage sizes of IT products such as hard drives and mobile phones.

[10 marks]