



GCE A Level – **LEGACY**

1243/01



**INFORMATION AND
COMMUNICATION TECHNOLOGY – IT3
Use and Impact of ICT**

MONDAY, 11 JUNE 2018 – MORNING

2 hours 30 minutes

Suitable for Modified Language Candidates

ADDITIONAL MATERIALS

A WJEC pink 16-page answer booklet.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.

Answer **all** questions in Section A and **one** question group in Section B.

Use both sides of the paper. Write only within the white areas of the booklet.

Write the question number in the two boxes in the left hand margin at the start of each answer.

Leave at least two line spaces between each answer.

The intended marks for questions or part questions are given in brackets []. You are advised to divide your time accordingly. The total number of marks available is 90.

You are reminded of the necessity for good written communication and orderly presentation in your answers.

Quality of written communication will be assessed in question **11**.

SECTION A

Answer all questions.

0	1	Human Computer Interfaces are developed to make using a computer as easy as possible. Describe three factors that should be taken into account when designing a good user interface. Do not use layout appropriate to task, clear navigation structure or differentiation between user expertise. [6]
0	2	There are several factors which influence the choice of a network. For each of the following factors give two reasons why they should be considered. [2 × 2] <ul style="list-style-type: none"> • existing systems to integrate • performance required.
0	3	<i>Client server</i> and <i>peer to peer</i> are two of the commonest types of networks. Discuss the benefits and drawbacks of these two types of networks. [6]
0	4	Wireless networks are installed in many schools. Describe two advantages and two disadvantages to a school of installing a wireless network. Do not use cost and health concerns. [4]
0	5	One of the tools which a network manager uses to administer a network is <i>remote management</i> . Describe five tasks a network manager could use to administer a network using remote management. Do not use logging off users who have forgotten to log off or clearing printer queues remotely at stations. [5]
0	6	Many companies now allow employees to telework from home. Give four advantages that teleworking gives to a company and four advantages it gives to an employee. [2 × 4]
0	7	Management Information Systems (MIS) have become vital to organisations in supporting the decisions of managers. Describe in detail four features of an effective MIS. Do not use being able to present data in the most appropriate format. [4 × 2]
0	8	After an IT system has been created and installed, the system has to be continuously maintained and managed. Describe in detail three problems or issues that should be looked at. Do not use updating the system. [6]
0	9	All employees who use a company's ICT equipment have to abide by a code of conduct. Discuss in detail four items that should be contained in the code of conduct. Explain why they are important. Do not use responsibilities and respecting the rights of others. [8]

1	0
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Discuss both the legal and moral issues involved with:

[3×2]

- Privacy of information
- Disinformation
- Misuse of information

Use examples in your answer.

1	1
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Describe in detail **four** operational procedures for preventing misuse of ICT systems. Do not use screening potential employees and establishing a code of conduct. [8]

1	2
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Organisations have designed security policies to protect their ICT systems. Describe in detail **two** factors that should be taken into account when designing security policies. Do not use physical security, code of conduct and operational procedures.

[4]

SECTION B

Answer either questions 13-16 or 17-19.

1	3	Attributes and entities are essential components of a relational database. Explain what is meant by an attribute and an entity. [2]
1	4	Explain in detail the purpose of a database management system (DBMS), query languages and data dictionaries. [6]
1	5	Describe two advantages of different users having different views of data and having different access rights to data. [2]
1	6	<p>A large dental surgery stores information on their patients' next appointment and expected treatment, using a relational database. One table in this database could be:</p> <p>DENTIST [DentistId, Firstname, Surname, Qualifications, MobileNumber]</p> <p>With DentistId being the primary key.</p> <p>Give two other suitable tables you would expect to see in this database. Identify any primary or foreign keys. [7]</p>
1	7	<p>The management of change and the corresponding changes are important concepts in ICT. Discuss in detail the effects of change upon: [6]</p> <ul style="list-style-type: none"> • organisational structure • work patterns • internal procedures.
1	8	<p>Another important concept in ICT is that of a distributed database. Define what is meant by a distributed database. Give two advantages and two disadvantages to an organisation of using a distributed database. [6]</p>
1	9	<p>Describe what is meant by data warehousing. Describe in detail two distinct advantages that data warehousing gives an organisation. [5]</p>

END OF PAPER