

**OCR**

Oxford Cambridge and RSA

**Tuesday 23 June 2015 – Morning****A2 GCE****APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY****G055/01** Networking solutions

Candidates answer on the Question Paper.

**OCR supplied materials:**

- Instructions for Candidates G055/01/IC (inserted)

**Other materials required:**

- Candidate's pre-prepared materials

**Duration:** 1 hour 30 minutes

Candidate forename		Candidate surname	
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Centre number						Candidate number				
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**INSTRUCTIONS TO CANDIDATES**

- The Insert will be found inside this document.
- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Attach your pre-prepared materials for tasks 1–3.
- Do **not** write in the bar codes.

**INFORMATION FOR CANDIDATES**

- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this paper is **100**.
- No marks will be given for using brand names of software packages or hardware.
- The quality of your written communication will be assessed through Q6 and Q10.
- This document consists of **12** pages. Any blank pages are indicated.

For Examiner's Use		Max
Task 2		21
Task 3		9
1		9
2		6
3		9
4		12
5		5
6		9
7		5
8		3
9		3
10		9
Total		100

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SECTION A

These questions refer to the Ocean Rentals Agency (ORA) network case study.

1 All users of the ORA network will have access to the network and its services from a variety of locations.

(a) Explain **two** services provided by the network that will help to improve communication between agents and clients.

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2 .....

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[6]

(b) The network will be a client-server network.

Explain how this will help ORA to keep its software and data on all devices secure and up to date.

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[3]

2 ORA rental agents will be transferring documents to the servers on the network from a variety of remote locations.

(a) Describe **one** disadvantage to ORA of handling important documents in this way.

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..... [3]

(b) Describe how VPN technology can help to overcome this disadvantage.

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..... [3]

3 ORA could have chosen a mesh topology over a star topology for the cabled part of the new network.

(a) Explain **one** advantage to ORA of using a mesh topology for its network.

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(b) Explain **two** disadvantages to ORA of using a mesh topology for its network.

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..... [6]

4 ORA's rental agents will need to be able to handle and exchange client data, and sometimes make financial transactions remotely.

(a) Describe **two** data protection issues that ORA will need to be aware of.

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[6]

(b) Explain **two** security procedures that ORA will need to ensure are used in order to deal with these issues.

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[6]

5 ORA's office network will require wireless access for the rental agents when they are working in the office.

(i) Recommend a wireless network connection device that would be most suitable for this network.

..... [1]

(ii) Explain **two** reasons why this device is the most suitable.

1 .....

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[4]





SECTION B

You do not need to refer to the case study to answer these questions.

7 Networks require a set of protocols in order to allow effective data communication between users.

(a) Describe what is meant by the term 'protocol'.

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..... [2]

(b) Identify and describe **one** protocol that might be used in a network connected to the Internet.

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10

8 Explain **one** purpose of a gateway within a network that is connected to the Internet.

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..... [3]

9 Explain **one** purpose of a communications log.

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..... [3]



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