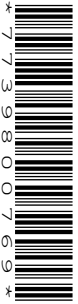# OCR
Oxford Cambridge and RSA

To be opened on receipt
LEVEL 1/2 CAMBRIDGE NATIONAL IN ICT

R001/01 Understanding Computer Systems

PRE-RELEASE CASE STUDY

JUNE 2019

INSTRUCTIONS TO TEACHERS
- This pre-release material may be given to candidates at any time after receipt by the Centre.

INFORMATION FOR CANDIDATES
- You **must** make yourself familiar with the pre-release material before you take the examination.
- You **must not** take notes into the examination.
- **A clean copy of this pre-release material will be given to you with the question paper.**
- You **must not** take this copy of the pre-release material into the examination.
- This document consists of **4** pages. Any blank pages are indicated.

Information for Learners

Computer games are created for a range of devices. Some games are created to be played on a PC whilst others are created for specific games consoles. (Scenario 1)

The rise of digital communication has meant that workers do not have to be physically present in the same office to work as a team. As teams have expanded in size with members in different locations, working practices have evolved so that these teams can operate efficiently. (Scenario 2)

Scenario 1

GBRS Games is a computer games development business based in the UK that creates games for a range of different devices.

GBRS Games is based in a large office in a building on a business park. It has a wireless network that covers all of the office. In order to protect the wireless network from being used by other businesses in the building, GBRS Games uses a 128-bit network security key system.

The business employs a core team of staff who work at the GBRS Games Head Office, as well as freelance staff who are employed to work on specific projects when needed. Freelance staff work from home and may be based anywhere in the world. GBRS Games uses a range of communication methods to keep in contact with staff who work in the office and those working from home.

Each project to create a new computer game has a group of staff allocated to it. For large projects, teams will include core team staff and freelance staff. Each group has a designated team leader who monitors the progress of the project. Established practice is for all members of each group to meet weekly either face-to-face or via video conference. Martin has recently been given a new team to manage and so has scheduled a video conference meeting for two days' time.

GBRS Games has recently bought a list of contact addresses to use with publicity materials. This data has been provided in open format.

Scenario 2

Su and Amerdeep are creating the initial design for a new fantasy game called 'Age of the Wing Riders'. Su works directly for GBRS Games but Amerdeep is a freelance designer who lives in California in the USA. Su and Amerdeep have collaborated on design projects before and have a good working relationship. They have developed good working practices that cope with the time differences between where they live.

On previous projects, Su was the person who came up with most of the initial ideas and Amerdeep was the person who suggested improvements. For this project, Su has created a word processing document called 'Initial character design' that is saved on the Cloud and has been shared with Amerdeep. As Su thinks of characters to include in the game, she will add a description to this document. Amerdeep will then use collaborative tools to add his thoughts about Su's ideas.

Amerdeep uses a computer system with two operating systems installed for his design work. Amerdeep has other items of peripheral hardware to aid his work and for communicating with his colleagues.

As well as working as a freelance designer, Amerdeep creates artwork that he sells via his own website. Customers who want to buy a piece of artwork have to provide Amerdeep with a delivery address which he stores on the hard drive of his computer. Unfortunately, the hard drive on Amerdeep's computer was recently damaged and all his customer data was lost. Amerdeep had to rebuild his computer with a new hard drive. This had huge implications for Amerdeep and he is now researching into a back-up method for his computer.

Preparation

In order to prepare for the examination, you should research into the use of technology in a computer games development business.

This should include:

- the network hardware required to create a Wi-Fi network;

- the use and benefits of 128-bit and 256-bit network security keys to protect a network;

- methods of communication between employees and the benefits and drawbacks of these methods;

- the extra hardware required to take part in a video conference meeting;

- the application and implications of health and safety legislation when creating and maintaining an office environment that is safe to work in.

You should also research into:

- different operating systems and the benefits of using more than one on a PC;

- the benefits and drawbacks of automated and manual methods to update software;

- the use and benefits of 'track changes' and 'insert comment' collaborative tools in word processing documents;

- the use of formatting tools included within standard word processing packages;

- how to choose an appropriate back-up method;

- the impacts on customers of a business after the corruption of data.