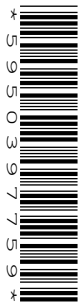# OCR
Oxford Cambridge and RSA

Thursday 26 May 2016 – Afternoon

GCSE INFORMATION AND COMMUNICATION TECHNOLOGY

B063/02/PRE ICT in Context

Duration: 1 hour

INSTRUCTIONS TO CANDIDATES

- This is a clean copy of the pre-release material which you have already seen.
- You may **not** take your previous copy of the pre-release material into the examination.
- You may **not** take notes into the examination.

INFORMATION FOR CANDIDATES

- This document consists of **2** pages. Any blank pages are indicated.

INSTRUCTION TO EXAMS OFFICER/INVIGILATOR

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Progress Leisure is a sports and leisure centre. The facilities available include a swimming pool, gym, sauna and a large sports hall that can be used for different activities.

The leisure centre runs a number of clubs, tournaments and classes. These include a badminton league, football league, running club and cycling club. A swimming class is also available to teach younger children how to swim and there is a water-aerobics class for older customers. Details of all the activities are published on the Progress Leisure website and in a newsletter.

When a customer registers with the leisure centre, personal information is collected using an online data capture form and an account is created. The account is used to make bookings on the centre's website and to store information about customer activities in a personal profile. This may include number of visits, time spent on an activity, scores in games or tournaments, timings in competitions, etc. Customers log on to the website through a web browser or smartphone app using two-factor authentication. Once logged on, their data is available to analyse at home.

The gym has modern equipment including cycling and running machines with virtual displays. The customer is able to choose from a number of realistic running or cycling courses which appear on a device's display. They are then able to compete online with other runners or cyclists in a simulated race. The results of the race, as well as other data such as heart rate and energy used, are uploaded to the customer's account at the end of the race.

When using the gym, customers are given a wearable heart rate monitor. This communicates wirelessly with the gym equipment to allow customers to see their heart rate on the equipment's display screen.

Wireless technology is used throughout the centre to support the equipment and to provide internet and intranet access to customers using the facilities. Before using the wireless network, customers must agree to the Progress Leisure Acceptable Use Policy.

Progress Leisure is considering installing a VoIP telephone system to reduce costs and to enable staff to work from home. It is also considering upgrading its current computer systems and disposing of old equipment.

You need to research the following in relation to a leisure centre:

- wireless technologies, including infrared, Bluetooth and Wi-Fi;
- legislation relating to the use of ICT;
- web 2.0 technologies;
- communication methods including VoIP;
- technologies and sensors used in gym equipment;
- security methods, including two-factor authentication;
- benefits and drawbacks of mobile devices for analysis of fitness data;
- policies and procedures for internet access;
- storage and use of personal data;
- recycling and disposal of digital devices.