



Cambridge International AS & A Level

CANDIDATE
NAME

--

CENTRE
NUMBER

--	--	--	--	--

CANDIDATE
NUMBER

--	--	--	--



INFORMATION TECHNOLOGY

9626/33

Paper 3 Advanced Theory

October/November 2021

1 hour 45 minutes

You must answer on the question paper.

No additional materials are needed.

INSTRUCTIONS

- Answer **all** questions.
- Use a black or dark blue pen.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- You may use an HB pencil for any diagrams, graphs or rough working.
- Calculators must **not** be used in this paper.

INFORMATION

- The total mark for this paper is 90.
- The number of marks for each question or part question is shown in brackets [].

This document has **16** pages. Any blank pages are indicated.

(b) Describe **two** drawbacks of using online questionnaires to gather feedback.

.....
.....
.....
.....
.....
..... [2]

2 QR codes are two-dimensional bar codes (matrix bar codes) representing information about items to which they are attached. An example of a QR code is shown:



(a) Describe the functional elements of a QR code.

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
..... [5]

(b) Explain why damaged QR codes may still be read while damaged one-dimensional bar codes often cannot be read.

.....
.....
.....
.....
.....
.....
.....
..... [3]

3 Peer-to-peer networking can account for a large percentage of all internet traffic. It is often used to transfer large files.

(a) Describe how peer-to-peer networking uses BitTorrent to transfer large data files between several users.

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
..... [6]

BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge Assessment International Education is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which itself is a department of the University of Cambridge.