



Cambridge International AS & A Level

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NAME



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INFORMATION TECHNOLOGY

9626/32

Paper 3 Advanced Theory

May/June 2025

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 70.
- The number of marks for each question or part question is shown in brackets [].

This document has **12** pages.



- 1** 3D printing is used to create objects.

(a) Describe the process of 3D printing an object.

[4]

[4]

- (b)** Describe how 3D printing is used to improve healthcare.

[4]





2 Two characteristics of a network are its topology and its architecture.

(a) Describe what is meant by network topology.

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..... [3]

(b) Describe what is meant by network architecture.

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- 3** The role of a wireless access point (WAP) is to enable wireless devices to make a secure connection to a wired network.

Describe how a WAP carries out this role.

[6]





- 4** The colour select tool in image-editing software is a selection tool that can be used to select, remove or hide parts of a bitmap image.

Analyse the use of **three** other selection tools that are provided by bitmap image-editing software.

[6]





- 5** Discuss the benefits and drawbacks of mobile networks.

[8]





6 Test plans are written early in the development cycle of new systems.

Describe the tasks that are carried out when creating a test plan.

[6]





- 7 Performance Evaluation and Review Technique (PERT) charts are used when planning a project. PERT charts can be drawn either as activity-on-node diagrams or as activity-on-arrow diagrams.

Compare, by commenting on the similarities and differences, activity-on-node and activity-on-arrow PERT diagrams.

[6]





DO NOT WRITE IN THIS MARGIN

8 Computer animation software can move and reshape objects.

- (a) Describe how inbetweening (tweening) can be used to create the illusion of smooth movement of an object.

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..... [2]

- (b) Morphing can be used to smoothly change a shape into another shape.

Describe how animation software uses pixel mapping to morph one shape into another.

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- 9 JavaScript statements can contain comparison operators such as `>` and `<`.

- (a) Describe the purpose of comparison operators.

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- (b) Explain the differences in function between the `==` and `!=` comparison operators.

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10 Blockchain technology is used as a distributed ledger in cryptocurrencies.

- (a) Describe what is meant by a distributed ledger.

[2]

[2]

- (b) Describe **two** items of data that would be stored in a cryptocurrency's distributed ledger.

[2]

[2]





- 11** Discuss the use of data mining by banking organisations.

[8]

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