

Please check the examination details below before entering your candidate information

Candidate surname

Other names

Centre Number

Candidate Number

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Pearson Edexcel International Advanced Level

Thursday 8 May 2025

Afternoon (Time: 2 hours)

Paper
reference

WIT11/01

Information Technology

International Advanced Subsidiary/Advanced Level

UNIT 1

You do not need any other materials.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*

Information

- The total mark for this paper is 80.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*
- Calculators are **not** allowed.

Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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Answer ALL questions. Write your answers in the spaces provided.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

1 Students use software and hardware to study networks.

(a) The students use the internet and the world wide web for online research.

(i) Not everyone in the world can access the internet and the world wide web.

Give **two** reasons why some people **cannot** access the internet and world wide web.

(2)

1

.....

2

.....

(ii) Identify the term for data generated when a student uses the internet and the world wide web.

(1)

- A Convergence
- B Digital footprint
- C Digital media
- D Unstructured data

(iii) State **one** function of a domain name server in the domain name system (DNS).

(1)

.....

.....



(b) The students create a peer-to-peer network to share files.

Give **two** characteristics of a peer-to-peer network that allow the students to share files.

(2)

1

.....

2

.....

(c) The students need hardware to build networks.

Complete the table by adding **eight** ticks (✓) to match the network components to the functions.

Each network component may perform more than one function.

One cell has been completed for you.

(4)

		Function			
		Works at the physical layer of the OSI model	Filters traffic to allow some to pass and others not to pass	Forwards all network traffic	Filters and forwards traffic between two different network protocols
Network component	Hub				
	Repeater				
	Switch				
	Bridge				
	Router				
	Gateway		✓		



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(d) Kris shares his school network login and password with Devan.

Explain **one** way this could lead to computer misuse.

(2)

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.....

(e) Describe **one** difference between Session Initiation Protocol (SIP) and Voice Over Internet Protocol (VOIP).

(2)

.....

.....

.....

.....



- (f) The students run an operating system command on a networked computer. The command displays information about current network devices and settings.

Figure 1 shows the output from this command.

```
Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix..... : lan

Description..... : Wireless-AC 9560 160 MHz
A..... : B9-9B-2C-7D-C3-B0

DHCP Enabled..... : Yes

Autoconfiguration Enabled..... : Yes
B..... : fe90::2e:5a70:b725:14cb%31(Preferred)
C..... : 192.168.1.211(Preferred)

Subnet Mask..... : 255.255.255.0

Lease Obtained..... : 23 January 2023 11:54:14

Lease Expires..... : 26 January 2023 13:16:01

Default Gateway..... : 192.168.1.254
D..... : 192.168.1.95

DHCPv6 IAID..... : 347642410

DHCPv6 Client DUID..... : 00-01-00-01-25-13-20-67-E8-75-B4-F6-08-C6

DNS Servers..... : 192.168.1.95

NetBIOS over Tcpi..... : Enabled
```

Figure 1



Complete the table to show the description for the labels A, B, C and D.

(4)

Label	Description
A	
B	
C	
D	

(Total for Question 1 = 18 marks)

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2 An e-commerce website sells clothing for people of all ages.

(a) The e-commerce website uses many different web pages to exchange information with users.

(i) Here is a mock-up of a web page using both static and dynamic content.

Draw:

- a rectangle around **one** occurrence of static content
- a circle around **one** occurrence of dynamic content.

(2)

20% off winter coats

Help Find a store

Search product code or brand

Sally N. 2 items

Home
Women
Men
Boys
Girls

Size guides				
Here are the conversions for international sizing. The fit of an individual garment may vary.				
UK/AU/NZ	AT/DE	BE/ES/FR	IT	US
10	36	38	42	6
12	38	40	44	8
14	40	42	46	10
16	42	44	48	12



(ii) Some people need an accessible web page because they have limited movement in their hands.

Give **two other** reasons some people need an accessible web page.

(2)

1

2

(b) The e-commerce website displays sponsored content and makes money from data.

(i) Sponsored content is a form of advertising.

The sponsor may pay to have the content displayed.

Give **two** characteristics of sponsored content.

(2)

1

2

(ii) The e-commerce website holds data about products, suppliers and customers.

Explain **one** way the e-commerce website could make money from data.

(2)

.....

.....

.....

.....



(c) The e-commerce website uses flowcharts to show processes.

(i) Explain **one** reason for using flowcharts to show processes.

(2)

(ii) The e-commerce website sells coats.

Coats come in different sizes and different colours.

Each type of coat has a unique product code.

When a customer adds a coat to the basket, the product code is added, the size is added, the colour is added and the quantity is added.

Figure 2 shows a basket.


Your basket	Each	Qty	Subtotal
 <p>B-brand Padded hooded jacket Blue, size 12 Code: W46519</p>	64.99	1	64.99
Total			64.99

Figure 2

When a customer checks out, the contents of the basket are looked up in a database of products.

The product code is validated.

When the product code is valid, the database is queried to determine if the colour, size and quantity of the product code are available.

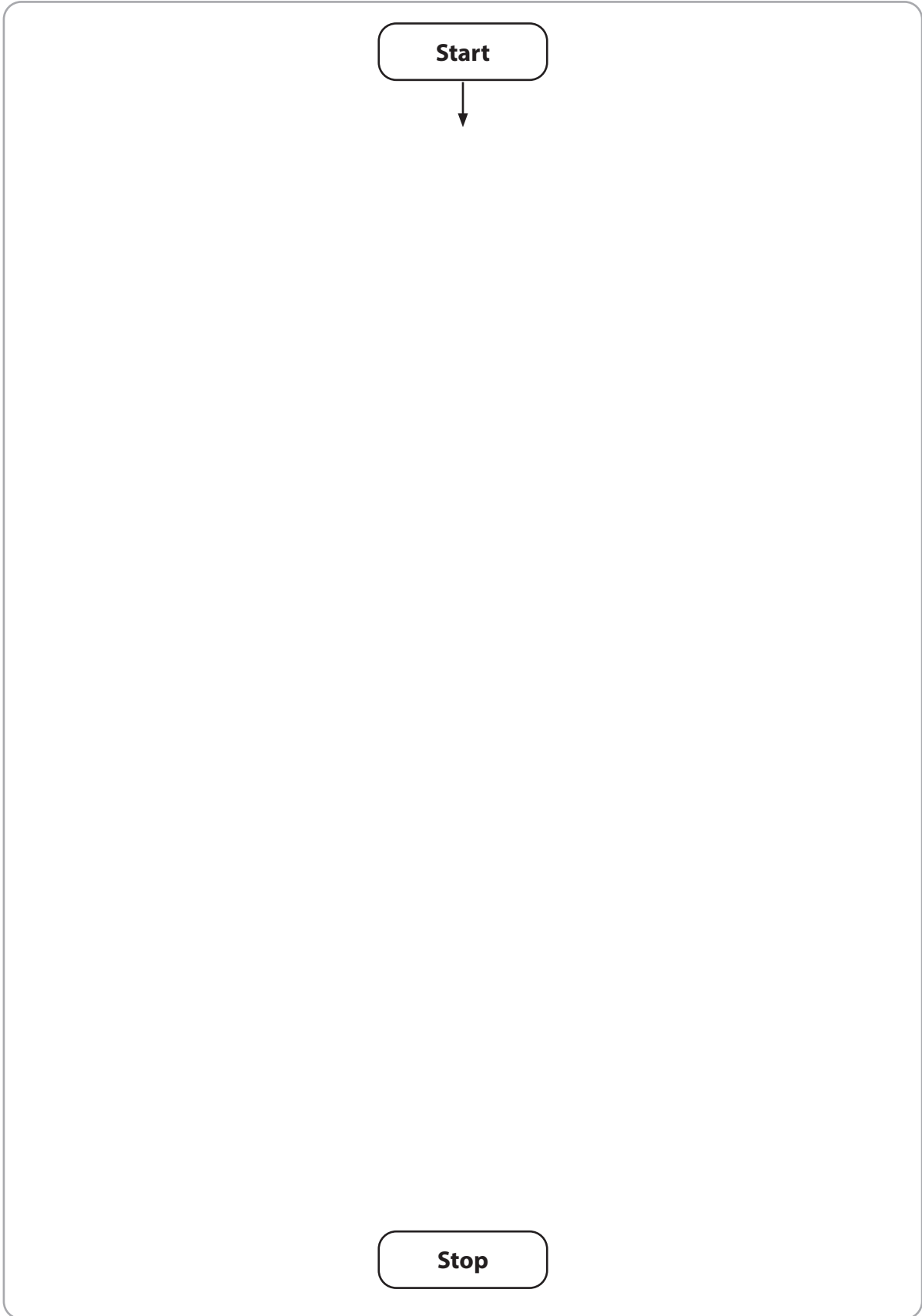
When the product code, colour, size and quantity are in the database, the customer is informed that the product is available.

Otherwise, the customer is informed that the product is not available.



Complete the flowchart to show if a single product in the basket is available or not available.

(4)



(Total for Question 2 = 14 marks)

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QUESTION 3 BEGINS ON THE NEXT PAGE.



3 People who work for the council use software, databases and the internet.

(a) State what is meant by the term **civil liberties**.

(1)

(b) Identify the term that means on-demand access, via the internet, to applications, servers and data.

(1)

- A** Ad hoc network
- B** Cloud computing
- C** Cloud storage
- D** Server-side scripting

(c) Council employees use data flow diagrams to manage database updates.

Draw the dataflow symbols for a data store and a data source.

(2)

Data store	Data source

(d) Council employees conduct a survey about transport.

Figure 3 shows part of the survey.

Council transportation survey

3. What is your age in years? _____

7. How often do you use a car to come into the city? (tick one)

<input type="checkbox"/> Five days a week or more	<input type="checkbox"/> 1–5 times a year
<input type="checkbox"/> 1–4 days a week	<input type="checkbox"/> Less than once a year
<input type="checkbox"/> 1–3 times a month	<input type="checkbox"/> Never
<input type="checkbox"/> 6–11 times a year	

22. What types of public transport do you know about in the city? (you may tick more than one)

<input type="checkbox"/> E-scooter	<input type="checkbox"/> Tram
<input type="checkbox"/> Bus	<input type="checkbox"/> Train

23. Where have you seen the advertisements for the e-scooters?

45. What would make you switch from a car to public transport?

Figure 3



(i) Give the number of a question that generates structured data.

(1)

(ii) Give the number of a question that generates unstructured data.

(1)

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(e) Council employees need to store information about vehicles in a database.

The database table name must be **tbl_vehicle**

Here is information about a vehicle.

- Vehicle ID = 3456
- Licence plate = WN26 TPX
- Owner = 263611

Write SQL queries in the table to satisfy **each** requirement.

(6)

Requirement	Create the table containing fields to store the information
SQL query	

Requirement	Insert a record for the vehicle into the table
SQL query	

Requirement	Retrieve all the fields for all the records from the table
SQL query	



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QUESTION 4 BEGINS ON THE NEXT PAGE.



4 A conference centre hosts trade shows and professional conferences.

The centre has a Wi-Fi network, bookable rooms and collects data about clients.

(a) Describe how access to resources on the network is controlled.

(2)

.....

.....

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.....

(b) The conference centre uploads a large amount of data to a data mining company.

The data file is 3.6 Gibibytes in size.

The mean upload speed is 20.58 Megabits per second.

Complete the expression to show how long it will take to upload the file in seconds.

You do **not** need to do the calculation.

(4)

$$\frac{\boxed{} \times \boxed{} \times \boxed{} \times \boxed{} \times \boxed{}}{\boxed{} \times \boxed{} \times \boxed{}}$$

(c) The conference centre has rooms that can be booked.

A database is used to record data about the rooms, furnishings and bookings.

Each room is equipped with items.

Items may be tables, chairs, computers and LED screens.

Clients must book rooms in advance.

Clients may request special consumable materials for each booking.

Consumable materials include notebooks, pens, coffee, tea and biscuits.

These entities are used in the database:

- Room (RoomName, Floor)
- RoomEquipment (RoomEquipmentID, ItemID, RoomName)
- Item (ItemName, ItemCondition, ItemID)
- Booking (RoomName, BookingID, ClientNum)
- Client (LastName, FirstName, ClientNum, Company)
- Request (ConsumableID, BookingID)
- Consumable (ConsumableID, Item)

A partially completed entity relationship diagram for the database is on the next page.

Complete the diagram by adding:

- primary keys
- foreign keys
- **six** relationships and relationship types.

Primary keys must be underlined.

Foreign keys must have an asterisk (*).

(12)



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Room

RoomEquipment

Item

Booking

Client

Request

Consumable

(Total for Question 4 = 18 marks)



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(Total for Question 5 = 12 marks)

TOTAL FOR PAPER = 80 MARKS



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