



Candidate Name

Candidate Number

Centre Name

Centre Number

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## **Paper 1: Theory**

## **Sample Paper**

**1 hour 30 minutes**

You must write your answers on the question paper, and no additional materials are required. Additionally, you must have a soft pencil (preferably of type B or HB), a clean eraser and a dark blue or black pen.

### **INSTRUCTIONS:**

- You must write your name, candidate number, centre name and centre number on the answer sheets in the designated spaces.
- Do not use correction fluid.
- Avoid writing on any bar codes.

### **INFORMATION:**

- This paper has a total of 72 marks.
- The number of marks assigned for every question or its parts is indicated within brackets [ ]

## Paper 1 – Theory

**Q1:** Students in a school use computers for various learning activities.

**(a)** Each computer has a network interface card (NIC) that enables it to connect to the school's local area network (LAN). When connected, it is assigned a subnet mask and a default gateway for communication.

Describe a network interface card (NIC) and a default gateway.

NIC:

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Default Gateway:

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[4 marks]

**(b)** The school provides tablets that connect to the internet wirelessly.

(i) State three advantages of using wireless connectivity instead of wired connectivity.

1. ....
2. ....
3. ....

[3 marks]

(ii) Explain why the school uses Wi-Fi instead of infrared for wireless communication.

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[2 marks]

**(c)** The school is concerned about student access to online content.

Discuss two factors the school should consider before granting students access to the internet.

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[2 marks]

**(d)** The school plans to implement an online learning platform. Identify four key features of an online learning platform.

1. ....
2. ....
3. ....
4. ....

[4 marks]

**Q2:** Ayesha owns an online business and uses her computer for managing orders and customer data.

**(a)** Ayesha is concerned about cyber threats affecting her business.

(i) Identify and describe two risks, apart from hacking, that could threaten Ayesha’s data.

- 1. ....  
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- 2. ....  
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[4 marks]

(ii) Ayesha’s password is “abcdef”. Explain how she can improve the security of her password.

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[3 marks]

(iii) Describe two security measures, other than a strong password, that Ayesha can implement to protect her business data.

- 1. ....  
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- 2. ....  
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[4 marks]

**(b)** Customers make payments on Ayesha’s website. Explain how she can ensure secure online payments.

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[2 marks]

**(c)** Ayesha recently started using social media for marketing her products. Describe four benefits of using social media for business promotion.

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[4 marks]

**(d)** Ayesha collects and stores personal information from customers. Outline her legal obligations when handling personal data.

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[3 marks]

**Q3:** Kareem frequently uses his smartphone for communication and entertainment.

**(a)** Kareem uses a messaging app to stay in touch with friends. Describe two advantages of using messaging apps.

- 1. ....  
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- 2. ....  
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[4 marks]

**(b)** Kareem is a member of online communities and follows an acceptable usage policy.

Explain the purpose of an acceptable usage policy.

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[2 marks]

**(c)** Kareem wants to upgrade his smartphone. Discuss four factors he should consider before purchasing a new device.

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[8 marks]

**Q4:** A technology company is setting up workstations for employees.

**(a)** State what is meant by a peripheral device.

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[1 mark]

**(b)** The company is developing an interactive kiosk.

**(i)** Identify two features of a touchscreen interface.

- 1. ....
- 2. ....

[2 marks]

**(ii)** Explain two benefits and one drawback of using a command-line interface (CLI) instead of a graphical user interface (GUI) for technical users.

Benefit 1:

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Benefit 2:

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Drawback:

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[6 marks]



**(c)** The company’s computers require frequent software updates. Explain two risks of not keeping software up to date.

Risk 1:

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Risk 2:

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[4 marks]

**Q5:** Priya owns a personal computer with RAM, ROM, and a solid-state drive (SSD).

**(a)** (i) Which two statements are correct?

- ☐ A. RAM is temporary storage; ROM is permanent storage.
- ☐ B. RAM stores files permanently; ROM is used for temporary storage.
- ☐ C. RAM can be upgraded; ROM cannot be modified.
- ☐ D. RAM can store data even when the power is turned off.

[2 marks]

(ii) State two characteristics of a solid-state drive (SSD).

- 1. ....
- 2. ....

[2 marks]

**(b)** Priya upgrades her processor from 2.5 GHz to 4.0 GHz.

Explain how this will enhance her computer's performance.

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[2 marks]

**(c)** Priya stores her files in cloud storage but is concerned about data security.

(i) Explain one advantage of cloud storage.

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[2 marks]

(ii) Explain one potential drawback of cloud storage.

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[2 marks]