

Helping you Achieve Highest Grades in IB

IB Computer Science Standard Level (SL)

Question Paper

Fully inlined with first assessment 2014 and suitable for
students sitting exams 2026+

Paper: 1

Section A - Compulsory Short Answers

Section B - Compulsory Structured Questions

Topic: 1 - System Fundamentals

Marks: 56

Total Marks: / 56

Suitable for SL Students sitting the 2026 exams onwards
However, HL students may also find these resources useful

Questions

21M.1.SL.TZ0.1

Identify **two** roles that a computer can perform in a network.

21M.1.SL.TZ0.2

Describe **one** method of implementation for a new computer system.

19M.1.SL.TZ0.1

Define the term *peripheral*.

21M.1.SL.TZ0.10

Identify **one** common feature found in the user interface of application software to improve its usability.

19M.1.SL.TZ0.3

Outline **one** method of collecting information from stakeholders concerning the requirements for a new system.

19M.1.SL.TZ0.4

Outline why a prototype would be used to demonstrate the proposed system to the client.

19M.1.SL.TZ0.10

Identify **two** ways that user documentation may be provided.

19M.1.SL.TZ0.14

A large mail order company is concerned about the security of its stored data.

The company decides to improve its service by introducing a new user interface for its customers and has developed this interface to the point that it needs to be tested by users who are outside of the company.

- a. Describe **two** possible causes of data loss. [4]
- b. Outline **two** backup strategies that may be used to limit data loss. [4]
- c. Explain why beta testing is used to gather feedback for the new user interface. [3]

d.

Outline **one** consequence of not involving end-users in the design and testing stages.

[2]

e.

Identify features that could be used to improve the accessibility of the new user interface.

[2]

20N.1.SL.TZ0.7

A school has a local area network (LAN) connecting its computers and peripheral devices. The LAN also provides access to the internet.

Users have been troubled by slow speeds when accessing the internet.

- a. Describe the role of a router in this network. [3]

b.

Outline **two** reasons why there might be a reduction in data transmission speed at certain times.

[4]

c.

Outline **two** measures that the school could take to safeguard its data from unlawful access via the internet.

[4]

d.

The inventory of office supplies used in the school is stored on the computer as a single file.

Each of the office supplies in the inventory (such as paper, ink, toner, printers, pens, staplers, pencils and scissors) has a unique ID number, name, maximum quantity, minimum quantity and remaining quantity.

Outline the steps in an algorithm that would output a list of supplies with the quantity to be ordered.

[4]

20N.1.SL.TZ0.8

Website developers need to consider a range of usability factors when designing a website.

A company promotes its products online. To make a purchase, customers are required to register with the company and provide data like their name, date of birth, age, gender and email address. Once registered, more than one customer is able to access the server to retrieve and modify their data at the same time.

a.

Identify **two** usability factors that need to be considered in the design of a website.

[2]

b.

Outline **one** reason why visual displays on a computer screen can create difficulties for some people.

[2]

c.i.

State where the customer data is held during the process of modifying their data.

[1]

c.ii.

Explain how the operating system ensures that each customer's data is secure when multiple users are accessing the data at the same time.

[4]

d.

The company is considering sharing its customers' data with marketing organizations.

Explain why there could be ethical issues for the company when sharing its customers' data.

[6]

20N.1.SL.TZ0.3

Compare direct changeover with parallel running as a method of implementation.

17N.1.SL.TZ0.4

Identify **one** method of inputting data that can improve the accessibility of a computer system for some users.

17N.1.SL.TZ0.10

Outline what is meant by beta testing.

22M.1.SL.TZ0.1

State **two** compatibility issues that may arise when international businesses merge.