

# KENYA HIGH SCHOOL

## POST MOCK EXAMINATIONS

### COMPUTER PAPER 1 FORM 4, 2021

#### Kenya Certificate of Secondary Education

#### **SECTION A (40 MARKS)**

Answer all questions from this section in the spaces provided

1. List the components of a computer system hardware. (2 Marks)

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2. Describe the term key to storage systems (1 Mark)

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3. One classification of software is system software

- (a) i. What is meant by system software (1 Mark)

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- ii. Give one example of system software. (1 Mark)

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- (b) i. Name one other software classification (1 Mark)

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- ii. Give one example of this type of software (1 Mark)

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4. a. What do you understand by the term database management system? (DBMS)? (1 Mark)

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- b. Define the following terms as used in a database. (2 Marks)

- i. Primary Key

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- ii. Record

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5. Differentiate between COMports and LPT ports (2 Marks)
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- .....
6. List three factors to consider when deciding on the choice of electronic data processing method (3 Marks)
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- .....
7. Ventilation is an important practice in the computer lab because it enhances proper circulation of air. Outline three ways in which air is regulated in the computer room. (3 Marks)
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- .....
- .....
8. What do the following control measures against computer crime involve? (4 Marks)
- a. Audit trail

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  - b. Data encryption

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  - c. Log files

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  - d. Passwords

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9. Highlight the use of find and replace features in word processors. (2 Marks)
- .....
- .....
10. Explain why two's complement is preferred to one's complement in computing. (1 mark)
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- .....
11. Computers have evolved through a number of generations. List any three characteristics of the first generation of computers. (3 marks)

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12. List four formatting techniques used in Ms excel (2 Marks)

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13. List four examples of flat panel displays. (2 Marks)

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14. Explain the following terms as used in the word processing. (4 Marks)

a. Indenting

b. Alignment

c. Footnote

d. Endnote

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15. Describe the role of an operating system in

i. Memory management

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ii. Job scheduling

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iii. Error handling  
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iv. Resource control  
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**SECTION B (60 MARKS)**

16. a. State the three basic types of program control structures. (3 Marks)

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b. Draw a flowchart which will simulate the processing of student's report. The simulation should be such that the user repeatedly inputs marks per subject for six subjects using a looping control structure. The computer processes the total marks and mean score of the student.

NOTE:

- 1. It is assumed that the student does six subjects
- 2. The output required are: Average score and total marks

c. Differentiate between analogue and digital data. (2 Marks)

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d. Outline three advantages of using computers for data processing over other types of office and business equipment.

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17. a. Convert the following numbers to their decimal equivalent. (6 Marks)

i.  $11.011_2$

ii.  $12.15_8$

iii.  $A3.3/6$

b. Outline four ways in which data integrity may be maintained. (4 Marks)

c. Explain four advantages of using questionnaires as a fact finding tool. (4 Marks)

d. What is the role of a recycle bin? (1 Mark)

18. a. Masai teacher's college has decided to automate its library for effective services to the students.

Identify four methods they are likely to use to gather information during system development.

(4 Marks)

b. What do the following terms mean in relation to internet? (4 Marks)

i. Downloading

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ii. Hyperlink

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iii. Web browsers

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(iv)Internet service providers

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c. Differentiate between sorting and filtering as used in electronic spreadsheet program (2 Marks)

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d. What do the following terms mean

i. Spam mail

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ii. Disk

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iii. Onboard modern

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e. What does the term WIMP mean as used in computing?

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19. (a) Define a database model (1Mark)

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b. List four advantages of using database systems (2marks)

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c. In a database system, data integrity ensures the correctness and completeness of the data in the database. Differentiate the following types of integrity constraints:

i. Validity integrity (1 mark)

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ii. Entity integrity (1 mark)

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iii. Referential integrity (1 mark)

d. Briefly describe the three database models (3 Marks)

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e. Using diagrams describe the following three types of relationships.  
(3Marks)

i. One – to – one

ii. One – to – many

iii. Many – to – many

f. File organization refers to the arrangement of records on secondary storage. Briefly describe the following file organization methods. (3 Marks)

i. Serial

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ii. Sequential

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iii. Random

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20. a. Your School has decided to replace its library control system. The current system was implemented ten years ago but has restricted reporting facilities and has a text – based interface. The school intends to replace the old system with a new computerized system, and is now considering both ‘parallel running ‘ and ‘direct changeover’

i. Briefly explain the terms parallel running and direct change over as used in system implementation. (2 Marks)

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ii. Give two disadvantages of direct changeover overparallel running (1 Marks)

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iii. Identify two main risks of direct changeover during system implementation (2 Marks)

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iv. Mention any two advantages of running both the manual system and the computerized system simultaneously (2 Marks)

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b. i. What is a website? (2 marks)

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ii. Name three facilities that are needed to connect to the internet. (3 Marks)

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c. State three ways students can benefit by having internet in a school (3 Marks)

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