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NAME: .... INDEX NO: ....

SCHOOL: .... CANDIDATE'S SIGN ....

DATE: ....

451/1
COMPUTER STUDIES
PAPER 1
July/August 2015
2 Hours

NAROK SOUTH SECONDARY SCHOOLS JOINT EXAMINATION
COMPUTER STUDIES
Kenya Certificate of Secondary Education (K.C.S.E)
PAPER 1

INSTRUCTIONS TO CANDIDATES:
i.   Write your name and index number in the spaces provided above.
ii)   Sign and write the date of examination in the spaced provided.
iii)   Answer all questions in section A.
iv)   Answer 16 and any other three questions from section B.
v)   All answers should be written on the question paper in the spaces provided below
        each question.

SECTION	QUESTION	SCORE
A	1 - 15	
B	16	
	17	
	18	
	20	

This paper consists of 12 printed pages
Candidates should check the question paper to ensure that all the pages are printed as indicated and
no questions are missing.

1. (a) Distinguish between a mouse pointer and an insertion point.   (2 marks)

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    ....

    (b) Differentiate between COM ports and LPT ports.   (2marks)

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2. Differentiate between a footnote and an endnote as used in ms-word.   (2 marks)

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3. The magnitude of number is evaluated using 3 parameters. State the parameters.   (3 marks)

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    ....

4. (a) What is data processing cycle?   (2 marks)

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    (b) Why is it referred to as a cycle?   (1 mark)

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    ....

5. Define the following terms as used in data communication: (3 marks)
    (i) Attenuation;

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    (ii) Band width;

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(c) List **three** types of documentation used during program documentation. (3 marks)

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17. (a) List **two** devices used in wireless communication. (2 marks)

(b) State and explain any three communication devices. (6 marks)

(c) State **four** functions of network operating systems. (4 marks)

(d) With the aid of a diagram, describe the mesh topology. (3 marks)

18. (a) List and explain **three** changeover strategies used in system development. (6 marks)

(b) State the stage of system development life cycle in which each of the activities below take

place: (3 marks)

(c) Differentiate between share level security and user level security as used in network security.

(2 marks)

(d) List **three** examples of protocols found at the application layer of OSI model. (3 marks)

19. (a) Differentiate between the following pairs of terms:

(i) Videotex and teletext; (2 marks)

(ii) Computer aided design and computer aided manufacturing. (2 marks)

(b) What is virtual reality? (2 marks)

(c) List **four** interactive sensory equipment used in virtual reality. (4 marks)

(d) What is telecommuting? (2 marks)

(e) State three advantages of telecommuting. (3 marks)

20. (a) What is an expert system? (2 marks)

(b) State and describe **three** components of an expert system. (6 marks)

(c) Using two's compliment, subtract 13io from 10io (4 marks)

(d) Convert the decimal number 0.64 to 6 bit binary notation. (3 marks)

(iii) Multiplexing.

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6. (a) List **three** major elements of networking. (1 ½ marks)

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(b) State **three** advantages of fiber optic cables. (1 ½ marks)

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7. Differentiate between the following terms: (2 marks)

(i) Syntax and logical errors

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(ii) Interpreter and compiler.

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8. (a) List **three** error detection methods. (1 ½ marks)

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(b) State **three** theories of system development. (1 ½ marks)

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9. List **six** layout components available in a PageMaker application window. (3 marks)

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10. Differentiate between tracking and kerning as used in DTP. (2 marks)

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11. List **four** examples of action queries. (2 marks)

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12. Highlight **three** responsibilities of a computer programmer. (3 marks)

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13. State **two** major uses of optical disks. (2 marks)

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14. What is an interrupt? (1 mark)

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15. Define the term multimedia. (1 mark)

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16. Study the flowchart below and answer the questions that follow.


```
                    Start

  Year = 1, A = S, Profit 2  ──────────►   Write A ◄──┐
                                                        │
         A=A+Profit                                     │
                                                        │
            Is                                          │
          Year>   ──────────►  Year = Year + 2 ─────────┤
            7
                                                        │
        P = A * Year

        Output P

          Stop
```
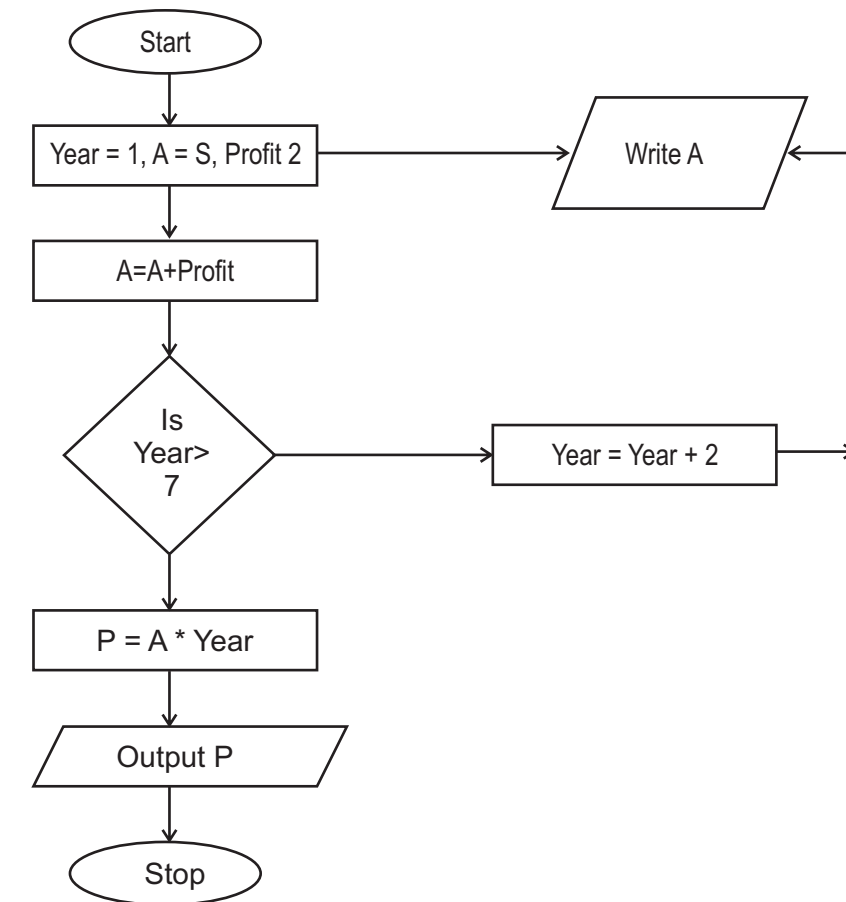
(a) List the various outputs from the flowchart above. Show your working. (6 marks)

(b) Write a pseudo code for the flowchart. (6 marks)

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                    ┌─────────┐
                    │  Start  │
                    └────┬────┘
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                         ▼
        ┌──────────────────────────┐            ╱──────────────╱
        │ Year = 1, A = S, Profit 2 │──────────▶╱   Write A    ╱◀──────┐
        └──────────────┬───────────┘           ╱──────────────╱        │
                       │                                                │
                       ▼                                                │
             ┌──────────────────┐                                      │
             │    A=A+Profit     │                                      │
             └────────┬─────────┘                                      │
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          │  Stop   │
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```