higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

COMPUTER PRINCIPLES N4

23 April 2021

This marking guideline consists of 5 pages.

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QUESTION 1

1.1 B
1.2 C
1.3 C
1.4 B
1.5 D
1.6 D
1.7 A
1.8 A
1.9 A
1.10 C

(10 × 1) **[10]**

QUESTION 2

2.1 True
2.2 True
2.3 False
2.4 False
2.5 False

(5 × 1) **[5]**

QUESTION 3

3.1 L
3.2 H
3.3 B
3.4 N
3.5 G
3.6 E
3.7 A
3.8 I
3.9 M
3.10 O

(10 × 1) **[10]**

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QUESTION 4

4.1
- Syntax error
- Runtime error
- Logical error (3)

4.2 Syntax error (1)

4.3 Syntax error (1)

4.4 Logical error (1)

4.5 Beginner's All-Purpose Symbolic Instruction Code (2)

4.6
- WHILE-WEND
- FOR-NEXT (2)

[10]

QUESTION 5

- Open printer box and inspect content.✓✓
- Connect printer cables and switch printer on.✓✓
- Install printer drivers on the computer.✓
- Insert paper and print a test page.✓✓
- Evaluate printed page and fine-tune setting if needed.✓✓
- If printer is connected to a network, make sure settings are correct and all clients can access the printer from their computer.✓ **[10]**

QUESTION 6

6.1
- Content is normally permanent and cannot be altered.
- Content is not lost in event of a power failure.
- It is cheaper than volatile memories. (3)

6.2 Volatile memory is computer storage that only maintains its data while the device is powered. (2)

6.3 RAM provides quick access to files that the computer is actively reading or writing. (2)

6.4
- Many modern computers are no longer supplied with a floppy disc drive.
- Low reliability – floppies went bad frequently, even though you neither scratched nor dropped them.
- Low capacity – about 1.38 mb
- Floppy disk can be affected by heat.
- Low transfer rate.
- High cost per GB (expensive) (6)

[13]

QUESTION 7

7.1
- It has a high level of performance compared to a general-purpose computer.
- It is expensive.
- It can do complicated calculations.
- It isvery fast. (4 × 1) (4)

7.2
- Dust
- Static electricity
- Humidity
- Ventilation
- Eating
- Space (Any 5 × 1) (5)

7.3 Serial: slow, single line for transmission,✓ requires a start, stop✓ and parity bit.✓
Parallel: Fast,✓ several lines for transmission,✓ single pulse required to transmit data.✓ (6)
[15]

QUESTION 8

8.1 When install routines are executed, the batch files complete the installing of the software. (2)

8.2
- Same running variable, loops cannot cross, start and end variable the same.
- Cannot enter from the outside of the loops. (2)

8.3
- Function key to trace the execution of the different BASIC statements.
- Can see the results on the screen while the statements are executed. (2)

8.4
- To reach target dates
- Better program designs
- Easier maintenance
- Easier testing
- Better reporting (Any 3 × 1) (3)

8.5 8.5.1
- It is characterised by independent sections.
- Each module is coded and tested separately.

8.5.2
- It is characterised by one whole section.
- The program is being tested as a whole.

(2 × 2) (4)
[13]

QUESTION 9

```
10 REM QUESTION 9
20 FOR A = 1 TO 10
30 INPUT N$(A)
35 NEXT A
40 FOR A = 1 TO 9
50 FOR B = A + 1 TO 10
60 IF N$(A) > N$(B) THEN SWAP N$(A), N$(B)
70 NEXT B
75 NEXT A
80 CLS
90 PRINT 'ALPAHBETICAL LIST'
95 FOR A = 1 TO 10
100 PRINT N$(A)
110 NEXT A
120 END
```

[14]

TOTAL: 100

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