

TAKORADI TECHNICAL UNIVERSITY

Faculty of Applied Sciences

Department of Computer Science

END OF SEMESTER EXAMINATION

2021/2022

BIT 313 PRINCIPLES OF PROGRAMMING

SECTION A

SECTION A-MULTIPLE CHOICE

INSTRUCTIONS

ANSWER ALL QUESTIONS. Select the most appropriate answer for each question. Each question carries ½ mark

1. Select the Odd one out
 - A. Operating system
 - B. Interpreter
 - C. Compiler
 - D. Assembler

2. Which one of the following is NOT a computer programming language
 - A. MS-Excel
 - B. BASIC
 - C. COBOL
 - D. C++

3. When creating a computer program, the designs the structure of the program
 - A. End user
 - B. System Analyst
 - C. Programmer
 - D. All of the above

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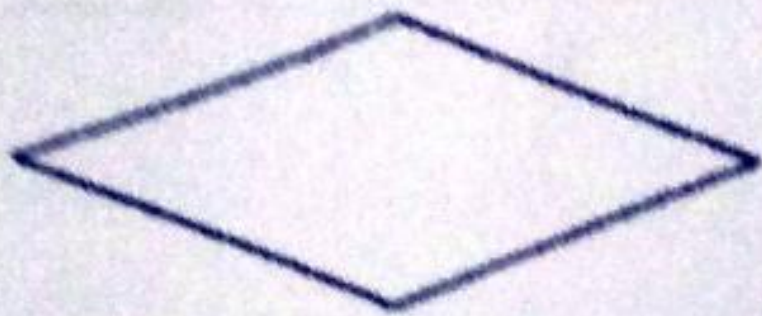
4. The process of drawing a flowchart for an algorithm is called _____

- A. Performance
- B. Evaluation
- C. Algorithmic Representation
- D. Flowcharting

5. Actual instructions in flowcharting are represented in _____

- a) Circles
- b) Boxes
- c) Arrows
- d) Lines

6. The following box denotes?



- A. Decision
- B. Initiation
- C. Initialization
- D. I/O

7. A box that can represent two different conditions.

- A. Rectangle
- B. Diamond
- C. Circle
- D. Parallelogram

8. Which of the following is not an advantage of a flowchart?

- A. Better communication
- B. Efficient coding
- C. Systematic testing
- D. Improper documentation

9. Method which uses a list of well-defined finite instructions to complete a task is called

- A. Program
- B. Flowchart
- C. Algorithm
- D. A & B

10. Flowcharts and Algorithms are used for

- A. Better programming
- B. Easy testing and debugging
- C. Efficient coding
- D. All of the above

11. An algorithm represented in a form of programming languages is called

- A. Flowchart
- B. Pseudocode
- C. Program
- D. None of the above

12. Which of the following is a pictorial representation of an algorithm

- A. Pseudocode
- B. Program
- C. Flowchart
- D. Algorithm

13. A code written in a particular language is referred as

- A. Object code
- B. Programing code
- C. Source code
- D. None of the Above

14. _____ have the responsibility of converting source code to machine language

- A. Converters
- B. Translators
- C. Programmers
- D. Algorithm

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15. Binaries are also referred to as
- A. Object code
 - B. Source code
 - C. Programming code
 - D. All of the above
16. Python is a good example of
- A. Interpreter
 - B. Compiler
 - C. Flowchart
 - D. Pseudocode
17. A sequence of instructions that is executed by a computer is called
- A. Syntax
 - B. Computer program
 - C. Logic code
 - D. Binary
18. Executing a program is mostly called
- A. A process
 - B. Instruction
 - C. Compiling
 - D. None of the above
19. Which of the following variable is not correct in python programming language
- A. Ab=2
 - B. -4a=8
 - C. __8ui="name"
 - D. Name90="Fiifi"

20. _____ are used to store data, they take memory space based on the type of value assigned to them

- A. Constants
- B. Variables
- C. Names
- D. Data type

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21. _____ are not expected to change

- A. Values
- B. Constants
- C. Variables
- D. Pseudocode

22. During the execution of an application, the data values are temporally held in

- A. Hard disk
- B. Mother board
- C. Memory
- D. All of the above

23. Which of the following is true about this statement: Name="Kwame"

- A. Name is the variable name
- B. Kwame is the variable name
- C. = is the variable name
- D. Name="Kwame" is the variable name

24. Which of the following statements is false about variable names in python

- A. A variable name can only contain alpha-numeric characters and underscores
- B. A variable name must start with a letter or the underscore character
- C. Variable names are case-sensitive
- D. None of the above

25. _____ uses structural conventions of a normal programming language, but is intended for human reading rather than machine reading

- A. Algorithm
- B. Pseudocode
- C. System code
- D. Translator

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26. Which of the following symbols is used to indicate the beginning of a program in flowchart



- A. B
- B. A
- C. C
- D. D

27. Which of the following symbols is used as input in flowchart



- A. B
- B. A
- C. C
- D. D

28. In computer programming, execution of an application is termed as

- A. Execution
- B. Running
- C. Syntaxing
- D. Coding

29. Rules that controls the structure of a programming language is termed as

- A. Rules
- B. Control structures
- C. Statements
- D. Syntax

30. A code written in particular programming language is called

- A. Syntax code
- B. Object code
- C. Source code
- D. Binary

31. Object code is commonly referred to as _____

- A. Translator
- B. App
- C. Binary
- D. Assembler

32. A compiler is

- A. A combination of computer hardware
- B. A program which translates from one higher level language to another
- C. None of the options
- D. A program which translates from one high level to a machine level language

33. When a key is pressed on the keyboard, which standard is used for converting corresponding keystroke into a corresponding bit

- A. ANSI
- B. ISO
- C. EBCDIC
- D. ASCII

34. A program error that occurs while the program is running is
- A. Syntax error
 - B. Runtime error
 - C. Execution error
 - D. Running error
35. An error in the source code of a program is
- A. Syntax error
 - B. Runtime error
 - C. Language error
 - D. Running error
36. An error that occurs when a compiler or interpreter cannot understand the source code statement in order to generate machine code
- A. Syntax error
 - B. Translator Error
 - C. Language error
 - D. Running error
37. In the statement: $2+2=2$ is an example of
- A. Translator error
 - B. Language error
 - C. Syntax error
 - D. Logical error
38. How many choices are possible when using a single *if-else* statement?
- A. 1
 - B. 2
 - C. 3
 - D. 4

39. Evaluate (to true or false) each of the following expressions:

$14 = 14$ $14 < 14$ $-9 > -25$ $-25 > -9$

- A. true true true true
- B. true false false false
- C. true false true true
- D. true false true false

40. Which of the following is not a relational operator

- A. $>$
- B. $<$
- C. \neq
- D. \times

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SECTION B – SHORT ANSWERS
INSTRUCTIONS

ANSWER ALL QUESTIONS.

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1. Explain the following programming concepts (5 marks)

- a. Syntax
- b. Variables
- c. Constants
- d. Control structures
- e. Object code

2. What is an algorithm (2)?

- a. What is the difference between flowchart and pseudocode (2)
- b. State the main purpose of algorithm (1)

3. Draw a flowchart to find the largest among three ~~(4)~~ different numbers (5 marks)

4. As the Lead developer in an Auditing firm. Your company is developing a software for its operations. Write **Pseudocode** and draw a **flow chart** for the part of the software that will be used find the average number of companies your first has been contracted to audit their books. (5 marks)

ALL THE BEST!!!