



BRAINWARE UNIVERSITY

Term End Examination 2021 - 22

Programme – Bachelor of Computer Applications

Course Name – Principle of Programming Language

Course Code - BCA201

(Semester II)

Time allotted : 1 Hrs.25 Min.

Full Marks : 70

[The figure in the margin indicates full marks.]

Group-A

(Multiple Choice Type Question)

1 x 70=70

Choose the correct alternative from the following :

- (1) The brain of any computer system is-
- | | |
|--------|------------------|
| a) ALU | b) Memory |
| c) CPU | d) None of these |
- (2) One nibble is equivalent to how many bits?
- | | |
|------|------|
| a) 2 | b) 4 |
| c) 8 | d) 1 |
- (3) Interpreter is used as a translator for _____
- | | |
|-----------------------|------------------------|
| a) Low level language | b) High Level Language |
| c) DVD-R | d) DVD-RW |
- (4) When an algorithm is written in the form of a programming language, it becomes a _____
- | | |
|----------------|------------|
| a) Flowchart | b) Program |
| c) Pseudo code | d) Syntax |
- (5) Pointer is
- | | |
|--|-------------------|
| a) a variable containing the address of a variable | b) a value |
| c) a memory location | d) none of these. |
- (6) ASCII and EBCDIC are popular character coding systems. What does EBCDIC stand for?
- | | |
|---|---|
| a) Extended Binary Coded Decimal Interchange Code | b) Extended Bit Code Decimal Interchange Code |
|---|---|

- c) Extended Bit Case Decimal Interchange Code d) Extended Binary Case Decimal Interchange Code
- (7) CD-ROM is a-
- a) Semiconductor memory b) Memory register
c) Magnetic memory d) none of these
- (8) Which of the following is not an input/output device?
- a) Printer b) Readers
c) Displays d) Magnetic tapes
- (9) Which is the main part of the Central Processing Unit (CPU)?
- a) ALU b) CU
c) Memory unit d) Input/Output unit
- (10) Which of the following is/are optical disk(s)? i. CD-ROM ii. DVD-ROM iii. Hard disk
- a) i & ii b) ii & iii
c) i & iii d) All of these
- (11) Which of the following retains the information it's storing when the power to the system is turned off?
- a) CPU b) RAM
c) ROM d) DIMM
- (12) All the following are computer input devices except for
- a) Keyboard b) Printer
c) Mouse d) JoyStick
- (13) The output quality of a printer is measured by
- a) Dot per sq. inch b) Dot per inch
c) Dots printed per unit time d) All of these
- (14) Why are variable names beginning with the underscore not encouraged?
- a) It is not standardized b) To avoid conflicts since assemblers and loaders use such names
c) To avoid conflicts since library routines use such names d) To avoid conflicts with environment variables of an operating system
- (15) What is the size of an int data type?
- a) 4 Bytes b) 8 Bytes
c) Depends on the system/compiler d) Cannot be determined
- (16) What is short int in C programming?
- a) The basic data type of C b) Qualifier
c) Short is the qualifier and int is the basic data type d) All of the mentioned
- (17) Which of the following declarations is illegal?
- a) `char *str = "Best C programming classes by BWU";` b) `char str[] = "Best C programming classes by BWU";`
c) `char str[20] = "Best C programming classes by BWU";` d) `char[] str = "Best C programming classes by BWU";`

- (18) The continue statement cannot be used with -
- a) for
 - b) while
 - c) do-while
 - d) switch
- (19) do-while loop terminates when conditional expression returns?
- a) one
 - b) zero
 - c) non zero
 - d) none of these
- (20) Which of the following is NOT a type of algorithm?
- a) Program
 - b) Flowchart
 - c) Decision Table
 - d) Pseudocode
- (21) In the following expression $z = x + y$ x and y are called:
- a) Operators
 - b) Values
 - c) Operands
 - d) Literals
- (22) Which of the following is used during memory deallocation in C?
- a) remove(p);
 - b) delete(p);
 - c) free(p);
 - d) terminate(p);
- (23) How many main() function we can have in our project?
- a) No Limit
 - b) Depends on Compiler
 - c) 1
 - d) 2
- (24) Which of the following concepts make extensive use of arrays?
- a) Binary trees
 - b) Scheduling of processes
 - c) Caching
 - d) Spatial locality
- (25) Which of the following return-type cannot be used for a function in C?
- a) char
 - b) struct
 - c) void
 - d) none of the mentioned
- (26) Which operator connects the structure name to its member name?
- a) -
 - b) .
 - c) both - and .
 - d) none of these
- (27) Which of the following data types are accepted while declaring bit-fields?
- a) char
 - b) float
 - c) double
 - d) None of the mentioned
- (28) Choose a correct statement about C structures.
- a) Structure elements can be initialized at the time of declaration
 - b) Structure members cannot be initialized at the time of declaration
 - c) Only integer members of structure can be initialized at the time of declaration
 - d) None of these
- (29) Which among the following is a special operator?
- a) <<
 - b) ++
 - c) ? :
 - d) sizeof()
- (30) What is the precedence of arithmetic operators (from highest to lowest)?
- a) %, *, /, +, -
 - b) %, +, /, *, -

c) +, -, %, *, /

d) %, +, -, *, /

(31) Which unit is responsible for converting the data received from the user into computer understandable format?

a) Memory Unit

b) ALU

c) Input Unit

d) Output Unit

(32) VDU stands for _____

a) Virtual Display Unit

b) Visual Display Unit

c) Virtual Detection Unit

d) Visual Detection Unit

(33) The value of base in a decimal number system is _____

a) 8

b) 2

c) 10

d) 16

(34) The physical devices of a computer-

a) Software

b) Package

c) Hardware

d) System Software

(35) A _____ is a diagram that depicts the flow of a program.

a) Algorithm

b) Hash Table

c) Graph

d) Flowchart

(36) A function may contain

a) one return statement

b) two return statements

c) more than two return statements

d) none of these.

(37) Number of bytes required to store a float variable is

a) 8 bytes

b) 4 bytes

c) 2 bytes

d) 6 bytes

(38) UNIVAC is-

a) Universal Automatic Computer

b) Universal Array Computer

c) Unique Automatic Computer

d) Unvalued Automatic Computer

(39) People often call _____ as the brain of a computer system.

a) Control Unit

b) Arithmetic Logic Unit

c) Central Processing Unit

d) Storage Unit

(40) Machine language is

a) Machine dependent

b) Difficult to program

c) Error prone

d) All of these

(41) The digital computer accepts _____ data as input.

a) Binary

b) Count

c) Numeric

d) Text

(42) Which of the following is an output device?

a) Mouse

b) Joystick

c) Plotter

d) Optical mark reader

(43) A sequence of instructions given to a computer to perform a particular task is called-

- a) ROM
c) Program
- b) RAM
d) Operating system
- (44) Hard disk is used as-
- a) Primary memory
c) Secondary memory
- b) Cache memory
d) All of these
- (45) Which of the following statements is correct?
- a) 1 KB = 1024 bytes
c) 1 MB = 1000 kilobytes
- b) 1 MB=2048 bytes
d) 1 KB = 1000 bytes
- (46) A character has how many bits:
- a) 4
c) 12
- b) 8
d) 16
- (47) C99 standard guarantees uniqueness of _____ characters for internal names.
- a) 31
c) 14
- b) 63
d) 36
- (48) Which of the following is a User-defined data type?
- a) `typedef int Boolean;`
c) `struct {char name[10], int age};`
- b) `typedef enum {Mon, Tue, Wed, Thu, Fri} Workdays;`
d) All of these
- (49) Which keyword is used to prevent any changes in the variable within a C program?
- a) `immutable`
c) `const`
- b) `mutable`
d) `volatile`
- (50) Which of the following statements is false?
- a) A variable defined once can be defined again with different scope
c) A variable must be declared and defined at the same time
- b) A single variable cannot be defined with two different types in the same scope
d) A variable refers to a location in memory
- (51) Which of the following is not an arithmetic operation?
- a) `a * = 10;`
c) `a ! = 10;`
- b) `a / = 10;`
d) `a % = 10;`
- (52) For which of the following, “PI++;” code will fail?
- a) `#define PI 3.14`
c) `float PI = 3.14;`
- b) `char *PI = “A”;`
d) None of these
- (53) Which of the following is an invalid if-else statement?
- a) `if (if (a == 1)){}
c) if ((char) a){}`
- b) `if (a){}`
d) `if (func1 (a)){}
e) if (a) {} else {}`
- (54) Which loop is guaranteed to execute at least one time.
- a) `for`
c) `do while`
- b) `while`
d) None of these
- (55) `c = (n)? a : b;` can be rewritten as `exp1 ? exp2 : exp3;`
- a) `if(n){c = a;}else{c = b;}`
b) `if(!n){c = a;}else{c = b;}`

- c) `if(n){c = b;}else{c = a;}` d) None of these
- (56) Which loop is faster in C Language, for, while or Do While.?
- a) for b) while
c) do while d) All work at same speed
- (57) What is the output of this C code? `void main() { int i = 2; do { printf("Hi"); } while (i < 2) }`
- a) Compile time error b) Hi
c) Hi Hi d) Varies
- (58) Example of iteration in C.
- a) for b) while
c) do while d) All of these
- (59) What is the output of this C code? `int main() { int i = 0; while (i = 0) printf("True.\n"); printf("False.\n"); }`
- a) True. (infinite time) b) True. (1 time) False.
c) False. d) Compiler dependent
- (60) What will be the output of the following program ? `#include void main() { char cnt=0; for (;cnt++;printf("%d",cnt)); printf("%d",cnt); }`
- a) 1 b) 0
c) run time error d) compile time error
- (61) Which symbol on a flowchart is used to represent the connect between the portions of a flowchart on separate pages?
- a) Off Page Connector b) On Page Connector
c) Annotation d) Flow Line
- (62) The accept keyword in a pseudocode is similar to the _____ symbol in a flowchart.
- a) Output b) Input
c) Subroutine d) Decision
- (63) Study the following pseudocode. `begin numeric nNum1, nNum2, nNum3 nNum1 = 20 nNum2 = 4 nNum3 = nNum1 % nNum2 Display nNum end` What will be the output?
- a) 0 b) 5
c) 1 d) Undefined
- (64) If an expression contains an addition operator, a less than operator, and a subtraction operator, which operator has a higher priority when evaluating the expression?
- a) Addition operator b) Subtraction operator
c) Less than operator d) All of these
- (65) `void * malloc(size_t n)` returns?
- a) Pointer to n bytes of uninitialized storage b) NULL if the request can be satisfied
c) Nothing d) None of these
- (66) Memory allocation using `malloc()` is done in _____
- a) Static area b) Stack area
c) Heap area d) Both Stack & Heap area

(67) Is initialisation mandatory for local static variables?

- a) Yes
- b) No
- c) Depends on the compiler
- d) Depends on the standard

(68) What is the format identifier for “static a = 20.5;”?

- a) %s
- b) %d
- c) %f
- d) Illegal declaration due to absence of data type

(69) Which of these best describes an array?

- a) A data structure that shows a hierarchical behaviour
- b) Container of objects of similar types
- c) Arrays are immutable once initialised
- d) Array is not a data structure

(70) When does the `ArrayIndexOutOfBoundsException` occur?

- a) Compile-time
- b) Run-time
- c) Not an error
- d) Not an exception at all