

UNIT–III

11. Write a note on 'switch'? Mention its syntax with example? $3 + 3 = 6$
12. What is the purpose of 'while' statement? When is the logical expression evaluated. What is the minimum number of times that a while loop can be executed? 6
13. What is a Union? What are the declaration of a Union? Explain with example? $2 + 4 = 6$

UNIT – IV

14. What are arguments? What is their purpose? What other term is sometimes used for an argument? $3 + 2 + 2 = 7$
15. What are function prototype? What is their purpose? Where are function prototype normally placed in a program? $3 + 2 + 2 = 7$
16. How arguments are passed to functions? What is the difference between 'passing by value' and 'passing by reference'. $3\frac{1}{2} + 3\frac{1}{2} = 7$

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2020

COMPUTER PROGRAMMING IN C
COMPUTER TECHNIQUE (Paper - II)
(Vocational Stream : Theory)

Full Marks : 100

Time : 3 hours

*The figures in the margin indicate full marks for the questions**General Instructions :*

- (i) Write all the answers in the Answer Script
- (ii) Attempt Part — A Objective Questions serially
- (iii) Attempt all parts of a question together at one place

(PART : A — OBJECTIVE)

(Marks : 50)

SECTION – I

1. Fill in the blanks from the list of words/phrases given at the end: $1 \times 20 = 20$
- (a) The expression containing all the integer operands is called _____ expression.
- (b) The operator _____ cannot be used with real operands.

(6)

(d) In 'switch' statement, each case instance value must be _____?

(i) Constant

(ii) Variable

(iii) Special symbol

(iv) None of the above

(e) Recursive functions are executed in a?

(i) First In First Out order

(ii) Load balancing

(iii) Parallel Fashion

(iv) Last In First Out order

4. Write the following in not more than 4 to 5 sentences each (Any five) :

3×5=15

(a) Identifiers in C

(b) Bitwise operators

(c) What is Algorithm?

(d) 'Comma' operator

(e) Operator precedence

(f) 'Type Cast' in C language

(g) What are 'members' in structure.

(3)

(m) The _____ statement is used to alter normal sequence of execution by transferring control to some other part of program.

(n) The _____ statement is use to bypass the remainder of the current pass through a loop.

(o) Return statement returns only _____ expression.

(p) When a function call itself, each innovation gets a fresh set of _____ variables, independent of the previous invocation.

(q) An array always contains data of _____ type.

(r) Array elements can be accessed _____.

(s) A contiguous list can be implemented using an _____.

(t) A pointer variable can be assigned _____ of ordinary variable.

List of Phrases/words :

Integer	Macro	Reserved	Value	Address
String	Six	String constant	Automatic	Integer
Float	Logical	Continue	Seven	*
goto	randomly	Sizeof	Single value	real
union	array	Same	structure	%

(4)

2. State whether the following statements are *True* or *False*: $1 \times 10 = 10$
- (a) One cannot have octal or hexadecimal integer constants in C.
 - (b) Unsigned integers can have values ranging from negative minimum to a positive maximum.
 - (c) A 'char' type has an equivalent integer interpretation; so it is really a special kind of short integer.
 - (d) When a variable 'i' is incremented with the operation `i++` in a statement, it means that 'i' has to be incremented before the statement is executed.
 - (e) Relational operators have lower precedence than arithmetic operators.
 - (f) The 'e' in `getche` function means it echoes the character that is typed.
 - (g) It is not possible to have formatted input/output in C.
 - (h) Every C program must have a `main ()` function.
 - (i) It is not possible to have nested 'if-else' statements in C.
 - (j) It is not possible to have switch statements nested within *while* or *for* loops.

(5)

3. Choose the correct option from the following questions: $1 \times 5 = 5$
- (a) A 'C' variable cannot start with
- (i) An alphabet
 - (ii) A number
 - (iii) A special symbol other than underscore
 - (iv) Both (ii) and (iii).
- (b) What is right way to initialization array?
- (i) `int num [6] = {2, 4, 12, 5, 45, 5};`
 - (ii) `int n {} = {2, 4, 12, 5, 45, 5};`
 - (iii) `int n {6} = {2, 4, 12}`
 - (iv) `int n (6) = {2, 4, 12.5, 45, 5};`
- (c) 'Bitwise' operators can operate upon?
- (i) Double and chars
 - (ii) Floats and doubles
 - (iii) Int and floats
 - (iv) Ints and chars.

(2)

- (c) C supports as many as _____ relational operands.
- (d) An expression that combines two or more relational expressions is termed as _____ expression.
- (e) The _____ operator returns the number of bytes the operand occupies.
- (f) A _____ consists of any number of consecutive character, enclosed in a double quotation marks.
- (g) All character are represented internally as _____.
- (h) An automatic variable does not retain its _____ once control is transferred out of its defining function.
- (i) The data type double is actually double precision _____ type of data.
- (j) In C 'while' is _____ word.
- (k) #define statement call for simplest type of _____ substitution.
- (l) The else portion of the 'if-else' statement is _____.

(7)

SECTION – II

(PART : B – DESCRIPTIVE)

(Marks : 50)

Answer ANY TWO questions from *each* UNIT

UNIT–I

5. What is 'typedef' in C? Explain its advantage with example. 2 + 4 = 6
6. Name and describe the basic data types in C. Explain. 6
7. Describe two different ways that floating-point constants can be written. What special rules apply in each case? 6

UNIT–II

8. Write a note on the 'for' loop using its syntax? Give example. 4 + 2 = 6
9. What is an operator? Describe several different types of operators that are included with the C language. 2 + 4 = 6
10. Explain the five arithmetic operators in C. Summarize the rules associated with their use. 3 + 3 = 6