

- (b) Write a program in C using pointer to print the given array elements in reverse order. 6

OR

10. (p) What is Pointer ? Explain declaration and initialization of pointer with syntax and example. 4
- (q) Write a program to sort an array of 10 integer numbers. 8

AM-221

B.C.A. Part-I (Semester-I) Examination
C-PROGRAMMING – 1ST2

Time : Three Hours]

[Maximum Marks : 60

- Note :** (1) **ALL** questions carry equal marks.
(2) All questions are compulsory.
(3) Assume suitable data if necessary
(4) Draw neat sketches if required.

1. (a) Explain keywords and identifiers in C. 4
(b) Explain basic data types in C. 4
(c) Describe the structure of C program. 4

OR

2. (p) Explain enumerated data types with syntax and example. 4
(q) Identify the valid variable names from the following, if not state the reason :
(i) \$abc
(ii) int
(iii) total_amt
(iv) 123abc. 4

(r) Identify the errors, if any, in the following declaration of variables :

(i) integer a, b ;

(ii) float x + y ;

(iii) short int z ;

(iv) double x, y ; z ; 4

3. (a) What do you mean by precedence and associativity of an operator ? Write precedence and associativity of C operators. 8

(b) What are bitwise operators ? Explain their use with suitable program example. 4

OR

4. (p) What is type conversion ? Explain the rules of implicit type conversion with example. 4

(q) What is expression ? Explain types of arithmetic expression with example. 4

(r) Write C assignment statement to evaluate the following equations :

$$(i) \quad x = \frac{-b + \sqrt{b^2 - 4ac}}{2a}$$

$$(ii) \quad \text{Length} = \sqrt{(a-b)^2 + (c-d)^2} . \quad 4$$

5. (a) Explain following with syntax and examples :

(i) getch()

(ii) getche()

(iii) getchar()

(iv) putchar(). 8

(b) Write a program to interchange the values of two variables without using third variable. 4

OR

6. (p) Explain printf() and scanf() statement with syntax and examples. 8

(q) Write a program to print the sum of individual digits of 4 digit integer number. 4

7. (a) Explain the use of break and continue statement in loop. 4

(b) Differentiate between while and do-while loop with syntax and example. 4

(c) Write a program to print whether the integer is prime or not. 4

OR

8. (p) Write a program in C to print following output :

1

1 0

1 0 1

1 0 1 0

1 0 1 0 1

6

(q) Explain nesting of if-else statement with suitable example program. 6

9. (a) What is Array ? Explain declaration and initialization of one dimensional array. 6