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C16-AEI-403

**6416**

**BOARD DIPLOMA EXAMINATION, (C-16)**

**JUNE/JULY—2022**

**DAEI - FOURTH SEMESTER EXAMINATION**

**PROGRAMMING IN 'C'**

*Time : 3 hours ]*

*[ Total Marks : 80*

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**PART—A**

3×10=30

- Instructions :** (1) Answer **all** questions.  
(2) Each question carries **three** marks.  
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. State the function of preprocessor directives.
2. List the five arithmetic operators and give their precedence.
3. Write the syntax of switch statement.
4. Differentiate between break and continue statements.
5. Write a 'C' program to reverse the given string handling functions.
6. List three string handling functions used in 'C'.
7. Define recursion.
8. List various standard built in functions.
9. Define the term union.
10. Write a program to initialize the pointer.

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## PART—B

- Instructions :** (1) Answer *any five* questions.  
(2) Each question carries **ten** marks.  
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. (a) Explain the structure of C language. 5  
(b) Explain bitwise logical operators. 5
12. Write a program to display first  $n$  natural numbers using 'do-while' loop. 10
13. Write a program to print Fibonacci series using 'while' loop. 10
14. Explain the functions used for reading and writing strings. 10
15. Write a C program to find the smallest number in the array. 10
16. Define a function. Explain return values and their types. 10
17. (a) Differentiate between local and external variables. 6  
(b) List the four storage classes supported by C. 4
18. Illustrate structures with a program to read and print a book database consisting of title of book, author, no. of pages, price as fields. 10

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