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C14–CM–106/IT–**106**

4032

BOARD DIPLOMA EXAMINATION, (C–14)

MARCH/APRIL—2017

DCM—FIRST YEAR EXAMINATION

PROGRAMMING IN C

Time : 3 hours] [*Total Marks* : 80

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. Distinguish between low-level and high-level language. 3

2. What is a variable? How to declare a variable in C? 2+1

3. List the unformatted input-output functions. 3

4. Write a C program to check whether the given number is even or odd. 3

5. What is a nested loop? Give an example. 2+1

6. How do you declare and initialize a two-dimensional array in C? 3

7. What is the purpose of strlen( )? Explain with an example. 2+1

8. Write the advantages of C functions. 3

9. List the dynamic memory management functions in C. 3

10. Write about the need of pre-processor directives. 3

PART—B

10×5=50

Instructions : (1) Answer *any* **five** questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. *(a)* Write a C program to find maximum of two numbers using conditional operator.

(b) Explain the scope and lifetime of variables in functions. 6+4

12. *(a)* Explain about various decision making statements in C.

(b) Write a C program to check whether the given year is leap year or not. 6+4

13. *(a)* Explain about for statement in C with an example.

(b) Distinguish between break and continue statements. 5+5

14. *(a)* What is an array? How do you read and print the elements in a single-dimensional array?

(b) Write a C program to sort the elements of an array in ascending order. 6+4

15. *(a)* What is a function? Explain how to declare, define and call a function with an example.

(b) Write a recursive function to find the factorial of a given number. 5+5

16. *(a)* How to access array elements using pointers?

(b) Write a C program to add two numbers using pointers. 5+5

17. *(a)* Define a structure. Explain the process of creating a structure.

(b) Write the differences between structure and union in C. 6+4

18. Write functionality of the following functions with the help of a text file : 2+2+2+2+2

(a) fseek( ), *(b)* ftell( ), *(c)* rewind( ), *(d)* fopen( ), *(e)* fclose( )

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