## BOARD DIPLOMA EXAMINATION, (C-14) <br> OCT / NOV-2017 <br> DECE-FOURTH SEMESTER EXAMINATION <br> PROGRAMMING IN C

Time : 3 Hours ]
[ Total Marks : 80

## PART - A

$3 \times 10=30$
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. What is the output if the following statement executed.
int num $=12$;
printf ( ${ }^{11} \% \mathrm{~d} \% \mathrm{o} \% \mathrm{x}^{11}$, num, num, num);
2. List and write the purpose of any six input format specifiers.
3. Write three conditional statements supported by C with syntax.
4. Explain for iterative statement.
5. Write a simple C statements to read string using gets().
6. Explain about putchar() and getchar().
7. Define a pointer. Give an example for integar pointer.
8. List three storage classes supported by C.
9. Write the purpose of any three conditional pre-processor directives.
10. Differentiate between structure and union.

Instructions: (1) Answer any five questions.
(2) Each question carries ten marks.
(3) Answers should be comprehensive and the criteria for valuation is the content but not the length of the answer.
11. a) Explain with example the basic data types in $C$ language.
b) Distinguish between Array and Structure.
12. a) Explain the conditional statement if-elseif with syntax and flowchart.
b) Write a program to find the largest of given three numbers using if-elseif.
13. a) Explain the while loop statement with syntax and flowchart.
b) Write a program to display multiplication table for 15 using while loop.
14. Define array. Explain how to declare and initialize a 1-D, 2-D array with example.
15. Explain the string manipulated functions strcat(), $\operatorname{strchr}(), \operatorname{strncmp}(), \operatorname{strcpy}()$ and strlen().
16. a) Explain the storage classes automatic, static, register and global, supported by C.
b) Write a C program to find the maximum of two given numbers using a function call technique.
17. a) Explain the concept of arithmetic operations on char and int type pointers.
b) Write a program to access 10 elelments of an integar array with pointer and print.
18. a) Explain the pre-processor directives : define, include, ifdef and ifndef.
b) Write a program to read student information like name and four subjects marks into the structure array and to print the same with total marks.

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