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C20-CM–105

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BOARD DIPLOMA EXAMINATION, (C-20)

JUNE/JULY—2022

DCM - FIRST YEAR EXAMINATION

BASICS OF COMPUTER ENGINEERING

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. Define the terms high-level language and low-level language.

2. Write about two types of memory used in a computer.

3. Define algorithm. List the features of an algorithm.

4. Draw the flowchart to display the greater of the two numbers.

5. State the need of operating systems.

6. List any three components of a window.

7. List different types of connectors used in networking.

8. Write any three differences between intranet and internet.

9. List any six applications of ML.

10. State the need for big data.

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PART—B

Instructions : (1) Answer **all** questions.

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

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

11. *(a)* Draw and explain the block diagram of a computer.

(OR)

(b) Convert the following numbers into hexadecimal number system :

(i) $(529)_{10}$ 2

(ii) $(457)_{8}$ 2

(iii) $(1101110101)_{2}$ 2

(iv) $(5504)_{10}$ 2

12. *(a)* Draw and explain flowchart for to check whether the given number is even or odd. 8

(OR)

(b) Explain in detail the characteristics of an algorithm. 8

13. *(a)* Explain about any ten internal commands. 8

(OR)

(b) Explain the procedure for changing resolution, colour, appearance, screensaver options of the display. 8

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14. *(a)* Explain three types of software in detail. 8

(OR)

(b) Explain various types of networks in computer networks. 8

15. *(a)* Define ethical hacking. Explain roles and responsibilities of ethical hacker. 8

(OR)

(b) Explain about inductive learning. 8

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PART—C

10×1=10

Instructions : (1) Answer the following question.

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

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

16. Write an algorithm and flowchart for the following question :

"Accept the name and marks obtained by a student in computers subject. Display the grades as per the table given below."

Marks obtained	Grade
80% or more	A
60% or more but less than 80%	B
40% or more but less than 60%	C
Less than 40%	No Grade

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