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C16-CM-505

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BOARD DIPLOMA EXAMINATION, (C-16)

MARCH/APRIL—2021

DCME - FIFTH SEMESTER EXAMINATION

ADVANCES IN COMPUTER TECHNOLOGY

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. Define UML. List the features of UML.
2. List and classify the standard UML diagrams.
3. State the purpose of class diagram.
4. Write the characteristics of Big Data.
5. List the differences between structured and unstructured data.
6. Write about Haptics and Haptic technologies.
7. Write about clustering.
8. What is reinforcement learning?
9. Write about non-repudiation.
10. Write about the roles in Cyber Security.

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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. Write the purpose of the following :
- (a) Interaction diagram 5
  - (b) Use case diagram 5
12. Explain the different symbols used in UML notation. 10
13. Explain various sources of Big Data. 10
14. (a) Write the advantages and disadvantages of Virtual Reality. 5  
(b) Write the applications of Virtual Reality. 5
15. Differentiate among virtual reality, augmented reality and mixed reality. 10
16. Explain decision tree learning with an example. 10
17. What is Ethical Hacking? Explain the different phases of Ethical Hacking. 10
18. (a) Explain penetrate testing. 5  
(b) Explain the terms integrity, availability in cyber security. 5

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