



C16-CM-505

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BOARD DIPLOMA EXAMINATION, (C-16)

JUNE—2019

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. Write the purposes of class diagram.
2. List any three symbols used in UML notation.
3. How to draw the Interaction diagram?
4. Define big data.
5. What are the characteristics of big data?
6. What is virtual reality?
7. Define machine learning.
8. List the applications of machine learning.
9. Write the role and responsibilities of Ethical hacking.
10. Write the roles of cyber security.

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**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. Explain the building blocks of UML.
12. List the goals of UML.
13. Write the sources of big data and formats of data. 7+3=10
14. List and explain the levels of immersion in virtual reality systems.
15. Differentiate virtual reality, augmented reality and mixed reality.
16. Explain the genetic algorithms and clustering.
17. Explain the phases of ethical hacking.
18. Explain the following cyber security principles : 2½×4=10
- (a) Integrity
  - (b) Confidentiality
  - (c) Non-repudiation
  - (d) Availability

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