



C16-CM-505

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BOARD DIPLOMA EXAMINATION, (C-16)  
NOVEMBER—2020  
DCME—FIFTH SEMESTER EXAMINATION  
ADVANCES IN COMPUTER TECHNOLOGY

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. Write the uses of use case diagram.
2. Draw the symbols for the UML elements—(a) class, (b) node, (c) component, (d) package, (e) use case, (f) collaboration.
3. What is the purpose of class diagram?
4. Define big data analytics.
5. List various tools used in big data.
6. List the applications of virtual reality systems.
7. Define machine learning and list the types of machine learning approaches.
8. List any three applications of machine learning.

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9. What is ethical hacking?
10. Write the objectives of cyber security.

**PART—B**

10×5=50

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

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

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

11. Explain interaction diagram with an example and write the procedure for drawing interaction diagram. 10
12. Explain the classification of UML diagrams in detail. 10
13. (a) Write the applications of big data. 5  
(b) What are the risks of big data? 5
14. Write short notes on the following : 10  
(a) Human Computer Interaction 5  
(b) Haptics 5
15. Explain the evolution of virtual reality systems. 10
16. Explain association rule learning with an example. 10
17. Explain about various cyber security principles. 10
18. List and explain different categories of hackers. 10

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