Enrollment No..

Faculty of Engineering / Science
End Sem (Odd) Examination Dec-2019
BC3CO01/CA3CO03 Computer Fundamentals
Programme: BCA-MCA(Integrated)   Branch/Specialisation: Computer / B.Sc.(CS) / BCA   Science/ Computer Application

Duration: 3 Hrs.   **Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

Q.1 i. A CPU contains: **1**
(a) A card reader and a printing device
(b) An analytical engine and a control unit
(c) A control unit and an arithmetic logic unit
(d) An arithmetic logic unit and a card reader

ii. BIOS stand for: **1**
(a) Basic Input Output System
(b) Binary Input Output System
(c) Basic Input Off System
(d) None of these

iii. Which of the following are the functions of an operating system?   **1**
(a) Allocates resources   (b) Monitors Activities
(c) Manages disks and files   (d) All of these

iv. Which of the following device broadcasts the signal to all the devices connected?   **1**
(a) Hub   (b) Switch   (c) Gateway   (d) Router

v. A program that appears to be useful, but attempts to steal and pass confidential information: **1**
(a) Worm   (b) Spyware
(c) Trojan Horse   (d) None of these

vi. Network protocol which is used to transfer a file: **1**
(a) SMTP   (b) SNMP   (c) POP3   (d) FTP

vii. A field or a combination of fields that has a unique value is called: **1**
(a) Foreign key   (b) Secondary key
(c) Primary key   (d) None of these

P.T.O.

viii. The term _____ is used to refer to a row in relational DBMS.   **1**
(a) Attribute   (b) Tuple   (c) Field   (d) Instance

ix. _____ describes a cloud service that can only be accessed by a limited number of people.   **1**
(a) Data Centre   (b) Private Cloud
(c) Public Cloud   (d) Virtualization

x. Which of these is not a major type of cloud computing usage?   **1**
(a) Hardware as a service   (b) Platform as a service
(c) Software as a service   (d) Infrastructure as a service

Q.2 i. Differentiate between system software and application software.   **3**
ii. Discuss pros and cons of Information technology in detail. What are different types of computers?   **7**
OR iii. How central processing unit works in a computer system? What are the different types of memory?   **7**

Q.3 i. How World Wide Web works?   **3**
ii. Write various services of Operating System in detail.   **7**
OR iii. Define computer network. Differentiate between LAN and WAN.   **7**

Q.4 i. Differentiate between Trojan and Worm.   **3**
ii. What are the different types of attacks in any computer system? Explain them in detail.   **7**
OR iii. What are the different security measures in Firewall? Discuss it in detail.   **7**

Q.5 i. Enlist various roles of DBA.   **3**
ii. Why three level architecture of database system is used? Explain with its diagram.   **7**
OR iii. Define database with its properties. Compare file-based approach & database approach.   **7**

Q.6 i. Define cloud. What is cloud computing?   **3**
ii. Explain different service delivery models in cloud with details.   **7**
OR iii. Discuss various advantages and disadvantages of cloud computing in detail.   **7**

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Marking Scheme
BC3CO01/CA3CO03 Computer Fundamentals

Q.1 i.   A CPU contains: 1
          (c) A control unit and an arithmetic logic unit
     ii. BIOS stand for: 1
          (a) Basic Input Output System
     iii. Which of the following are the functions of an operating system?   1
          (d) All of these
     iv. Which of the following device broadcasts the signal to all the devices   1
          connected?
          (a) Hub
     v.   A program that appears to be useful, but attempts to steal and pass   1
          confidential information:
          (c) Trojan Horse
     vi. Network protocol which is used to transfer a file: 1
          (d) FTP
     vii. A field or a combination of fields that has a unique value is called: 1
          (d) None of these
     viii. The term _____ is used to refer to a row in relational DBMS.   1
          (b) Tuple
     ix. _____ describes a cloud service that can only be accessed by a   1
          limited number of people.
          (b) Private Cloud
     x.   Which of these is not a major type of cloud computing usage?   1
          (a) Hardware as a service

Q.2 i.   Differences b/w system software and application software   3
          1 mark for each difference   (1 mark * 3)
     ii. Pros and cons of Information technology   7
          At least five points from pros and cons each   5 marks
          Types of computers   2 marks
OR   iii. Central processing unit works in a computer system 5 marks   7
          Types of memory   2 marks

Q.3 i.   World Wide Web works   3
     ii. Services of Operating System   7
          Minimum 5 services   5 marks
          Example   2 marks

OR   iii. Computer network   2 marks   7
          Difference b/w LAN and WAN
          At least 5 points 1 mark for each (1 mark * 5)   5 marks

Q.4 i.   Difference b/w Trojan and Worm   3
          At least 5 points 1 mark for each   (1 mark * 3)
     ii. Types of attacks in any computer system   2 marks   7
          Explanation   5 marks
OR   iii. Security measures in Firewall   2 marks   7
          Explanation   5 marks

Q.5 i.   At least three roles of DBA 1 mark for each   (1 mark * 3)   3
     ii. Three level architecture of database system is used 5 marks   7
          Its diagram   2 marks
OR   iii. Database with its properties   2 marks   7
          Compare file-based approach & database approach
          At least 5 points 1 mark for each (1 mark * 5)   5 marks

Q.6 i.   Definition of cloud   1 mark   3
          Cloud computing   2 marks
     ii. Service delivery models in cloud   7
          Naming services   1 marks
          Explanation 2 marks for each services (2 marks*3) 6 marks
OR   iii. Advantages of cloud computing (at least 5 points) 3.5 marks   7
          Disadvantages (at least 5 points)   3.5 marks

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