SK-135

September-2020

B.C.A., Sem.-VI

SEC-302 : Cloud Computing

Time : 2 Hours]   **[Max. Marks : 50**

Instructions : (1)   **All** Questions in **Section I** carry equal marks.
               (2)   Attempt any **TWO** questions in **Section I**.
               (3)   Question **5** in **Section II** is **COMPULSORY**.

Section – I

1.   (A) (i)   Explain various characteristics of cloud computing.   **5**
              (ii)   What is Cloud Computing Reference Model? Draw and explain.   **5**

     (B) (i)   Explain any one cloud computing technology in detail.   **5**
              (ii)   What are the challenges of cloud computing ?   **5**

2.   (A) (i)   Explain MIMD architecture of parallel computing in detail.   **5**
              (ii)   Explain with diagram the role of web services in service computing.   **5**

     (B) (i)   Define SOA and explain its characteristics.   **5**
              (ii)   Explain System Architecture Style in detail.   **5**

3.   (A) (i)   Draw and explain the machine reference model.   **5**
              (ii)   What are the characteristics of virtualized environment ?   **5**

     (B) (i)   Explain the benefits and threats of virtualization in cloud computing.   **5**
              (ii)   Draw and explain the desktop model of full virtualization.   **5**

4.   (A) (i)   What are the fundamental components of cloud reference model ?   **5**
              (ii)   Explain the advantages and disadvantages of private cloud.   **5**

     (B) (i)   Explain the main characteristics of PaaS solution.   **5**
              (ii)   What is heterogeneous cloud ? Explain in detail.   **5**

Section – II

5. MCQs Any **Five** :   (5 × 2 = 10)

(i) CSPs is termed as _____.
   (A) Cloud Service Providers   (B) Cloud Service Producers
   (C) Cloud System Providers   (D) Cloud System Producers

(ii) _____ cloud network is available within an organization.
   (A) Private   (B) Public
   (C) Hybrid   (D) System

(iii) X in XaaS stands for _____.
   (A) Extra   (B) Everything
   (C) Express   (D) Expert

(iv) Uniprocessors are used in _____ machines.
   (A) SISD   (B) CISD
   (C) S1CD   (D) CSID

(v) _____ is the characteristic of a service.
   (A) Boundaries are explicit.
   (B) Services are autonomous.
   (C) Services share schema and contracts.
   (D) All of the above

(vi) Job distribution approach is used in _____ model.
   (A) farmer   (B) worker
   (C) farmer and worker   (D) Distributor

(vii) The least privileged level for security is
   (A) Ring 0   (B) Ring 1
   (C) Ring 2   (D) Ring 3

(viii) Virtualization can be of _____ type.
   (A) storage   (B) network
   (C) desktop   (D) All of the above

(ix) _____ pricing strategy is adopted by the service providers for pricing models.
   (A) tiered   (B) per-unit
   (C) subscription-based   (D) All of the above

(x) Users of _____ cloud shares same concerns or needs.
   (A) public   (B) private
   (C) hybrid   (D) community

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B.C.A., Sem.-VI

SEC-302(C) : Advance Java
(New Course)

Time : 2 Hours]   **[Max. Marks : 50**

Instructions : (1)   All Questions in **Section I** carry equal marks.
                        (2)   Attempt any **TWO** questions in **Section I**.
                        (3)   Question 5 in **Section II** is **COMPULSORY**.

Section – I

1.   (A)   What is use of File class ? Explain File class in depth.   **10**

     (B)   Write use of FileInputStream class. Explain FileInputStream class in depth.   **10**

2.   (A)   Explain JButton class hierarchy, constructors and methods.   **10**

     (B)   What is use of Layout Manager ? Explain GridLayout in depth.   **10**

3.   (A)   What is event ? Explain role of Event Listeners. How event can be handled ?   **10**

     (B)   Explain InetAddress class in depth.   **10**

4.   (A)   List different types of JDBC drivers. Explain any two drivers in depth.   **10**

     (B)   Explain Connection and Statement interfaces.   **10**

Section – II

5.   Attempt following : (Any **Five**)   **10**

     (1)   To write and read from file _____ package is used.

           (a)   Java.io   (b)   Java.inout

           (c)   Java.file   (d)   Java.rw

     (2)   _____ and _____ are different types of stream in file handling.

           (a)   Byte and character   (b)   Data and byte

           (c)   Data and character   (d)   None of the above

(3) Serialization means _____

    (a) Object to byte stream conversion

    (b) Byte to object stream conversion

    (c) Both of the above

    (d) None of the above

(4) _____ method returns current state of JCheckBox.

    (a) isSelected()   (b) isStatus()

    (c) Any of the above   (d) None of the above

(5) A class that respond to button clicks must implement a(n) _____

    (a) ButtonListener   (b) ItemListener

    (c) ClickListener   (d) ActionListener

(6) Handlers are _____.

    (a) Methods   (b) Classes

    (c) Interface   (d) None of the above

(7) _____ layout is used to arrange the components in stack.

    (a) Flow   (b) Border

    (c) Grid   (d) Card

(8) _____ class is used in connectionless UDP.

    (a) DatagramPacket   (b) Socket

    (c) ServerSocket   (d) None of the above

(9) The _____ package is used for data Java Database Connectivity.

    (a) Java.database   (b) Java.db

    (c) Java.sql   (d) None of the above

(10) ODBC stands for_____

    (a) Open database connection   (b) Object database connection

    (c) Object data connection   (d) Open database connectivity

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September-2020

B.C.A., Sem.-VI

SEC-302(3) : Web-Site Development-II (PHP, AJAX)
(Old Course)

Time : 2 Hours]   **[Max. Marks : 50**

Instructions : (1) All Questions in **Section I** carry equal marks.
            (2) Attempt any **TWO** questions in **Section I**.
            (3) Question 5 in **Section II** is **COMPULSORY**.

Section – I

1. (A) (i) What is XAMPP ? What are the various characteristics of it ?   **5**

        (ii) Explain in detail "associative array in PHP".   **5**

    (B) (i) What is the role of phpMyAdmin ? What are its functionalities ?   **5**

        (ii) List all "Types of Operators in PHP" and explain two operators with examples.   **5**

2. (A) (i) Explain the steps to display all the records from a table of MySQL.   **5**

        (ii) Explain $_POST array and its use in PHP.   **5**

    (B) (i) Explain the steps with code to insert a record in MySQL database.   **5**

        (ii) Explain global variables and its use in PHP.   **5**

3. (A) (i) How to place an asynchronous request to server ? Explain with PHP code.   **5**

        (ii) Explain traditional web application model in detail.   **5**

    (B) (i) How to place POST request of XMLHttp object using AJAX ?   **5**

        (ii) Explain AJAX web application model in detail.   **5**

4. (A) (i) Explain XML-RPC web service method in detail.   **5**

        (ii) Explain with suitable code for "Checking a field for blank".   **5**

    (B) (i) Explain the web service model and the use of its each component in detail.   **5**

        (ii) Explain with suitable code for "regular expression method of email validation".   **5**

Section – II

5. MCQs (Any **5 × 2** Marks each)   **10**

(1) GNU-GPL has GPL that refers to _____.

 (a) Generic Public Level (b) General Public License

 (c) Generic Protocol Level (d) General Protocol Level

(2) Variable names in PHP always starts with _____.

 (a) $ (b) &

 (c) @ (d) #

(3) Two strings can be concatenated using _____ operator.

 (a) .(dot) (b) , (comma)

 (c) _ (underscore) (d) + (add)

(4) Both $_GET and $_POST data can be found in _____

 (a) $_REQUEST (b) $_READY

 (c) $_DATA (d) $_ARRAY

(5) In PHP, mysql_numrows() function _____ in php.

 (a) assign numbers to rows

 (b) count number of rows

 (c) assign row numbers and count them

 (d) None of the above

(6) _____ stores the result of SQL query being executed.

 (a) Resultset (b) Output

 (c) Array (d) Data

(7) AJAX has J that is expanded as _____.

 (a) JavaScript (b) Java

 (c) Jquery (d) Jbeans

(8) XMLHttpRequest object has a variable ReadyState whose value 4 means _____.

 (a) Request Complete (b) Request not initialized

 (c) Request in Process (d) Request has been sent

(9) 'selected' attribute of listbox item returns _____.

 (a) True (b) False

 (c) index number (d) listbox item value

(10) S in WSDL means _____.

 (a) System (b) Synchronous

 (c) Social (d) Service

_____

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September-2020

B.C.A., Sem.-VI

SEC-302(4) : Information Security
(Old Course)

Time : 2 Hours]   **[Max. Marks : 50**

Instructions :
(1) All Questions in **Section I** carry equal marks.
(2) Attempt any **TWO** questions in **Section I**.
(3) Question 5 in **Section II** is **COMPULSORY**.

Section – I

1. (A) Explain Information Security Principles of Success in detail. **10**
   (B) What are the different types of computer crime ? How do cyber criminals commit them ? **10**

2. (A) Discuss the technical controls for providing physical security in detail. **10**
   (B) Write a detailed note on Operations Security controls in Action. **10**

3. (A) Discuss the principle of authentication. Also discuss Biometrics. **10**
   (B) Discuss : The different implementations of PPK cryptography. **10**

4. (A) Write a detailed note on Intrusion Detection System. **10**
   (B) Write a detailed note on different types of data network. **10**

Section – II

5. Answer any **5** : **10**
   (1) _____ is the enemy of security.
       (a) Fear   (b) Complexity
       (c) Doubt   (d) Uncertainty
   (2) _____ are the white hat hackers paid to test the security of newly acquired system.
       (a) Security Consultants   (b) Security Architects
       (c) Security Testers   (d) Security Administrator

(3)   Which of the following does not pertain to physical security ?

(a)   Site selection

(b)   Securing a site against unauthorized access

(c)   Protecting people and property

(d)   Installing firewalls on all computers.

(4)   The major of physical security threats includes

(a)   Earthquakes   (b)   Chemical Fire

(c)   Hurricanes   (d)   All of above

(5)   What is the most secure way to dispose information on a CD-ROM ?

(a)   Physical Damage   (b)   Sanitizing

(c)   Physical destruction   (d)   Degaussing

(6)   What are the two types of ciphers ?

(a)   Transposition and substitution

(b)   Substitution and replacement

(c)   Transposition and shift

(d)   None of above

(7)   When you use the same key to both encrypt and decrypt a message, its called
_____ cryptography.

(a)   Asymmetric key   (b)   Symmetric key

(c)   Public private key   (d)   None of above

(8)   Which of the following occurs when the system classifies an action as anomalous,
when it is a legitimate action ?

(a)   False negative   (b)   Subversion Error

(c)   False Positive   (d)   None of the above

(9)   The ISO/OSI Layer 6 is which of the following ?

(a)   Application layer   (b)   Presentation layer

(c)   Data link layer   (d)   Network layer

(10) An _____ is an intranet that allows select users on the outside of the fire-
walls to access the site.

(a)   Internet   (b)   Extranet

(c)   WAN   (d)   MAN

_____