

Seat No. : \_\_\_\_\_

**LF-115**

**April-2014**

**B.C.A. Sem.-VI**

**SEC-302(1) : Mobile Application Development**

**Time : 3 Hours]**

**[Max. Marks : 70**

1. (A) (1) Write a note on Mobile Computing Vs. Wireless Networking. **3**  
(2) What is Mobile Computing ? Explain the characteristics of Mobile Computing. **4**

**OR**

- (1) Explain dissimilarities between 2G and UMTS.  
(2) Write a note on Structure of Mobile Computing Application.  
(B) Write a note on GSM. **7**

**OR**

Explain properties of MAC protocol. Also explain any one category of MAC protocol.

2. (A) (1) Define : Home Network, Foreign Agent and Correspondent Node. **3**  
(2) Explain Packet Delivery to and from a mobile node using schematic diagram. **4**

**OR**

- (1) Explain Multi-hop Wireless Network.  
(2) Explain M-TCP.  
(B) What is Mobile IP ? Explain key mechanism of Mobile IP. **7**

**OR**

Write a note on Mobile OS. Explain Windows Mobile OS and Android Mobile OS.

3. (A) (1) Explain android SDK. 3  
(2) What is Emulator ? Write steps for creating an Emulator. 4

**OR**

- (1) Write a note on Android and its versions.  
(2) Write a note on subfolders created within the root folder of an Android project.
- (B) Write a note on Intent Class and Activity Class. 7

**OR**

Explain how to pass data between two activities through intent. Also explain how to link two or more activities.

4. (A) (1) Explain Value Class with suitable example. 3  
(2) What are View Groups ? Explain any one view group with example. 4

**OR**

- (1) Explain Resource Management in Android.  
(2) Explain the Layout Class with suitable example.
- (B) Write a note on View Class. Explain three views with example. 7

**OR**

Write a note on different methods to deploy an android application.

5. Multiple Choice Questions : 14

- (1) \_\_\_\_\_ is not the standard of 3G.  
(a) M-CDMA (b) UMTS  
(c) HSPDA (d) EDGE
- (2) FEC stands for \_\_\_\_\_.  
(a) Forward Error Collision  
(b) Forward Edge Correction  
(c) Forward Error Correction  
(d) Forward Edge Collision

- (3) \_\_\_\_\_ is not a Random Assignment Schemes.
- (a) ALOHA (b) Split-ALOHA  
(c) CSMA (d) CSMA/CD
- (4) MAC stands for \_\_\_\_\_.
- (a) Mobile Access Control  
(b) Medium Access Control  
(c) Multiple Access Control  
(d) Multi Access Control
- (5) I-TCP stands for \_\_\_\_\_.
- (a) Internet TCP (b) Invisible TCP  
(c) Indirect TCP (d) None of the above
- (6) \_\_\_\_\_ is not the TCP/IP protocol layer.
- (a) Control Layer  
(b) Transport Layer  
(c) Network Access Layer  
(d) Application Layer
- (7) \_\_\_\_\_ is used for sending and receiving E-mails by a mail client.
- (a) FTP (b) MIME  
(c) SMTP (d) IP
- (8) main.xml is in \_\_\_\_\_ folder.
- (a) Bin (b) Values  
(c) Layout (d) Gen
- (9) Emulator is also known as \_\_\_\_\_.
- (a) Android visual device  
(b) Android virtual device  
(c) Android virtual detector  
(d) Android visual detector



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**B.C.A. Sem.-VI**

**SEC-302(2) : Website Frameworks**

**Time : 3 Hours]**

**[Max. Marks : 70**

1. (A) What is Joomla ? And write a difference between static website and CMS. **7**

**OR**

Explain all steps in detail to plan your website.

(B) Write steps to create a new section and explain all section parameters. **7**

**OR**

Write steps to create new categories and explain all parameters.

2. (A) Explain any three types of menus in Joomla administrator interface. **7**

**OR**

Explain all the options in detail to filter articles in Joomla.

(B) Write steps to create and edit the articles and explain all parameters. **7**

**OR**

Explain all steps to install a new template in Joomla and make it default.

3. (A) Explain all steps to install and configure a simple image gallery in Joomla. **7**

**OR**

Explain how to create and edit users in Joomla.

(B) Explain if condition in Ruby with syntax. **7**

**OR**

Write a short note on JCE.

4. (A) Explain how to create and compare strings in Ruby with syntax. **7**

**OR**

Explain how to create an array and access array elements in Ruby.

(B) Explain basic math operations in Joomla. **7**

**OR**

Write a short note on Rails.

5. Attempt the following :

- (1) Which type of server technology is used by Joomla ?
    - (a) Joomla
    - (b) Apache
    - (c) PHP
    - (d) All of the above
  - (2) Joomla is a CMS of \_\_\_\_\_.
    - (a) .net
    - (b) php
    - (c) java
    - (d) None of the above
  - (3) CMS stands for context management system. True/False.
  - (4) Which option will you select to find the unpublished Articles ?
    - (a) Component Manager
    - (b) Media Manager
    - (c) Article Manager
    - (d) None of the above
  - (5) Which menu is used to add new article in joomla ?
    - (a) Content
    - (b) Component
    - (c) Extension
    - (d) None of the above
  - (6) Which type of files can Media Manager not upload ?
    - (a) .pdf
    - (b) .png
    - (c) .xls
    - (d) None of the above
  - (7) Which option will you choose to set the site metadata for the installed website ?
    - (a) Global Configuration
    - (b) Module Manager
    - (c) Section Manager
    - (d) All of the above
  - (8) Global configurations are set changes for client side. True/False
  - (9) Which one is not a type of user ?
    - (a) Public
    - (b) Guest
    - (c) Manager
    - (d) Writer
  - (10) Ruby is object oriented language. True/False
  - (11) Rescue is not a keyword in ruby. True/False
  - (12) JCE stands for joomla content editor. True/False
  - (13) Ruby does not have type declaration for variables. True/False
  - (14) Which keyword is used to define method in ruby ?
    - (a) Def
    - (b) math
    - (c) sap
    - (d) None of the above
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**B.C.A. Sem.-VI**

**SEC-302(3) : Website Development-II (PHP, AJAX)**

**Time : 3 Hours]**

**[Max. Marks : 70**

1. (A) Explain various conditional and looping statements in PHP language with examples. 7

**OR**

Explain various types of Arrays in PHP language with examples.

- (B) Answer the following questions : 7

- (1) Explain PHP functions using example.
- (2) Explain various PHP operators.

**OR**

Answer the following questions :

- (1) What is XAMPP ? Give characteristics of XAMPP.
- (2) Differentiate between HTML comments and PHP comments.

2. (A) Explain steps of inserting new record in the MySQL table using PHP. 7

**OR**

Explain steps of deleting record from the MySQL table using PHP.

- (B) Answer following questions : 7

- (1) What is global variable ?
- (2) Define the usage of PHP functions : `extract()` and `mysql_fetch_array()`

**OR**

Answer following questions :

- (1) Explain steps of MySQL database connectivity.
- (2) Define the usage of PHP functions : `mysql_error()` and `echo()`.

3. (A) Solve the following questions : 8
- (1) Write JavaScript function to validate email address.
  - (2) Explain AJAX Web model.

**OR**

Solve the following questions :

- (1) Create HTML form with two Password fields P1 and P2. Write JavaScript to validate that, both P1 and P2 are not empty and P1 content should match to content of P2.
  - (2) Explain advantages of using AJAX technologies.
- (B) Explain steps to make AJAX request to the application server. 6

**OR**

Explain AJAX script for accessing FORM elements using any one example.

4. (A) Solve the following questions : 8
- (1) What is RPC ? Explain how it works.
  - (2) Explain SOAP Framework.

**OR**

Solve the following questions :

- (1) What are Web Services ? Explain with example. Mention advantages of Web Services.
  - (2) Explain Simple Object Access Protocol.
- (B) Define following terms : 6

- (1) UDDI
- (2) WSDL
- (3) HTTP

**OR**

Define following terms :

- (1) REST
- (2) XML
- (3) FTP



- (1) PHP code is written between the \_\_\_\_\_ tags.
- (a) `<% %>` (c) `<?php ?>`  
(b) `<%php %>` (d) `<? ?>`
- (2) All variables in PHP start with \_\_\_\_\_ sign symbol followed by either letter or underscore.
- (a) # (c) ?  
(b) @ (d) \$
- (3) \_\_\_\_\_ statement loops through a block of code for each element in an array.
- (a) foreach (c) for  
(b) do...while (d) while
- (4) `$str = "Good". 'One';` The value of str is \_\_\_\_\_.
- (a) Compilation error (c) Null value  
(b) "Good . one" (d) "Goodone"
- (5) \_\_\_\_\_ Array does not contains data of HTML form.
- (a) `$_SESSION` (c) `$_GET`  
(b) `$_REQUEST` (d) `$_POST`
- (6) \_\_\_\_\_ function is used to find size of an array.
- (a) Elements () (c) Size ()  
(b) Length () (d) None of above
- (7) \_\_\_\_\_ function is used to selecting MySQL database.
- (a) `mysql_select_db ()` (c) `mysql_connect ()`  
(b) `mysql_database ()` (d) `mysql_db ()`
- (8) \_\_\_\_\_ query command is used to searching records from table in MySQL database.
- (a) RETRIVE (c) SHOW  
(b) SELECT (d) None of above
- (9) \_\_\_\_\_ function create new HTML document tag.
- (a) `GetElementByld ()` (c) `CreateNode ()`  
(b) `CreateHTMLNode ()` (d) `CreateElement ()`

- (10) XMLHttpRequest status code 404 indicates \_\_\_\_\_.
- (a) Not Found
  - (b) Server Error
  - (c) Request Forbidden
  - (d) None of above
- (11) WAMP is stands for \_\_\_\_\_.
- (a) Wide Application Management in PHP
  - (b) Windows Apache MySQL PHP
  - (c) Web Application in MySQL and PHP
  - (d) Windows Application MySQL PHP
- (12) \_\_\_\_\_ tag is used to display list elements in combo box.
- (a) RADIO
  - (b) FORM
  - (c) INPUT
  - (d) SELECT
- (13) Web services are not used for \_\_\_\_\_.
- (a) Communicating two web applications
  - (b) Exchanging web data between two machines
  - (c) Designing Web pages
  - (d) All of above
- (14) To stop execution of PHP script \_\_\_\_\_ is used.
- (a) dispose
  - (b) die
  - (c) dead
  - (d) destroy
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## SEC-302(4) : Information Security

Time : 3 Hours]

[Max. Marks : 70

1. (A) Explain information security principles of success in detail. 8

**OR**

What are the different types of computer crimes ? How do cyber criminals commit those crimes ?

- (B) (I) What is the tasks of Security administrator and Security testers in an Information Security Organization ? 3  
(II) What is the Intellectual Property Law ? Also explain Patent Law. 3

**OR**

- (I) Explain any two domains of Information Security.  
(II) Write a note on Computer Forensics.

2. (A) What are the areas of providing Physical Security ? 8

**OR**

What are the Operation Security controls in action ?

- (B) (I) Explain the categories of Physical Threats. 3  
(II) Explain : Operation Security Principles. 3

**OR**

- (I) Explain any two physical security principles in detail.  
(II) Explain any two operation security process controls in details.

3. (A) Explain the terms and concepts of Access Control System. 8

Authentication, Least Privilege, Information Owner, Access Control List

**OR**

Explain Hashing Functions and Block Ciphers of Digital Cryptography.

- (B) (I) Write a note on Biometrics. 3  
(II) Explain Asymmetric Keys in Cryptography. 3

**OR**

- (I) Write a note on Remote User Access and Authentication.  
(II) Explain Transport Layer Security (TLS) of PPK Cryptography.

4. (A) Explain the different types of Data Networks. **8**

**OR**

Write a note on Distribution Systems. Also explain the software agents.

(B) (I) What are the security services to protect network from attacks. **3**

(II) What is meant by Malware ? Explain the different types of Malware. **3**

**OR**

(I) Write a note on Virtual Private Networks (VPN).

(II) Explain the significance of Antivirus Software.

5. Answer the following : **14**

(1) Confidentiality, \_\_\_\_\_ and \_\_\_\_\_ are the three goals of information security.

(2) \_\_\_\_\_ are the white-hat hackers paid to test the security of the newly acquired or developed system.

(3) \_\_\_\_\_ is any word, name, symbol or device or any combination that an individual intends to use commercially and wants to distinguish as coming from unique source.

(4) Investigating crimes committed with computers is known as \_\_\_\_\_.

(5) Weather and structural failures are the types of physical security threats. (TRUE/FALSE)

(6) A \_\_\_\_\_ card carries a semi-conductor chip with logic and non-volatile memory.

(7) \_\_\_\_\_ Security deals with the control over software, hardware, media, operators and administrators who possess access privileges to any of these resources.

(8) The main objective of separation of duties is to ensure that audit trails are not tampered with. (TRUE/FALSE)

(9) Finger print recognition, iris scan and face recognition are Biometric techniques. (TRUE/FALSE)

(10) \_\_\_\_\_ is the science of breaking a cryptosystem.

(11) \_\_\_\_\_ protocol maintains the proper sequence of incoming packets and acknowledges the receipt to the user over a network.

(12) An extranet is an intranet that allows select users on the outside of the firewalls to access the site. (TRUE/FALSE)

(13) \_\_\_\_\_ propagates itself by infecting other programs including operating system.

(14) \_\_\_\_\_ is a Java object that once downloaded can cause undue harm on the host computer.