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SEAT No. :

P2143

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T.Y.B.B.A. (C.A.)

**CA-601 : RECENT TRENDS IN INFORMATION  
TECHNOLOGY**

**(2019 CBCS Pattern) (Semester - VI)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate full marks.*

**Q1)** Attempt any Eight of the following (Out of Ten) :

**[8 × 2 = 16]**

- a) What is OLAP?
- b) Define 'State Space' in artificial intelligence.
- c) What is Data frame?
- d) What is RDD?
- e) What is Data Mart?
- f) Define ETL tools.
- g) What is a Plateau in artificialintelligence?
- h) Define OLTP.
- i) Which language is not supported by Spark?
- j) Define Ridge.

**Q2)** Attempt any Four of the following (Out of Five) :

**[4 × 4 = 16]**

- a) What are components of spark? Explain.
- b) Explain Architecture of Data Warehouse.
- c) What is the philosophy of artificial intelligence?
- d) Describe technique of data mining.
- e) Write the advantages of Bidirectional Search.

**P.T.O.**

**Q3) Attempt any Four of the following (Out of Five) : [4 × 4 = 16]**

- a) What is data cleaning? Describe various method of data cleaning.
- b) Explain any two Types of OLAP Servers.
- c) Elaborate the Spark Installation Steps?
- d) Explain Breadth First Search technique of artificial intelligence.
- e) Write any four applications of Data Mining.

**Q4) Attempt any Four of the following (Out of Five) : [4 × 4 = 16]**

- a) Differentiate between MOLAP and HOLAP
- b) What is the Missionaries and Cannibals Problem Statement? Write its solution.
- c) How is Apache Spark different from MapReduce?
- d) What is Data warehouse? Describe any two applications in brief.
- e) Write in detail the various blind search techniques in artificial intelligence.

**Q5) Write a short notes on Any Two of the following (Out of Three) : [2 × 3 = 6]**

- a) 'Water Jug Problem' in artificial intelligence with the help of diagrams and propose a solution to the problem.
- b) Action
- c) Snowflake Schema



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T.Y.B.B.A. (C.A.)

**CA-602 : SOFTWARE TESTING**  
**(2019 CBCS Pattern) (Semester - VI)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate full marks.*
- 3) *Neat diagram must be drawn whenever necessary.*

**Q1)** Attempt any Eight of the following (Out of Ten) :

**[8 × 2 = 16]**

- a) Explain terms - Error, Fault and Failure.
- b) Define software testing.
- c) What is structural testing?
- d) How to calculating cyclomatic complexity?
- e) What is verification testing?
- f) Explain types of Acceptance testing?
- g) Define software metrics?
- h) What is user documentation testing?
- i) Define the term SQA.
- j) What is a test case design?

**Q2)** Attempt any Four of the following (Out of Five) :

**[4 × 4 = 16]**

- a) What is debugging? Explain with its phases.
- b) Explain in details verification and validation.
- c) What is Black - Box testing? Explain with its techniques.
- d) Write difference between static testing and Dynamic testing.
- e) Explain GUI testing in details.

**P.T.O.**

**Q3) Attempt any Four of the following (Out of Five) : [4 × 4 = 16]**

- a) What is difference between client/server testing and web - based testing?
- b) Explain five different level of capability maturity model (CMM).
- c) Explain Acceptance testing in details.
- d) Explain Top - Down and Bottom - UP integration testing in details.
- e) Explain term unit testing.

**Q4) Attempt any Four of the following (Out of Five) : [4 × 4 = 16]**

- a) Explain testing principles in details.
- b) Explain Load testing and stress testing in details.
- c) Write difference between Quality Assurance (QA) and Quality control (QC).
- d) Explain test case design for login process.
- e) Explain software testing life cycle (STLC) in details.

**Q5) Write a short note on Any Two of the following (Out of Three) : [2 × 3 = 6]**

- a) Load Runner.
- b) Testing for Real - Time system
- c) Goal - Question - Metric Model (GQM).



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B.B.A. (CA)

**CA-603 : ADVANCED JAVA  
(2019 Pattern) (Semester - VI)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Figures to the right indicate full marks.*

**Q1)** Attempt any Eight of the following :

**[8 × 2 = 16]**

- a) What is the use of cookies?
- b) What is the use of Runnable interface?
- c) Explain thread priority.
- d) What is the use of HQL?
- e) What are the directives in JSP?
- f) What is networking?
- g) Write the method for creating connection?
- h) What is the yield ( ) method?
- i) What is the use of socket class?
- j) What is servlet?

**Q2)** Attempt any Four of the following :

**[4 × 4 = 16]**

- a) Explain in details directives in JSP.
- b) Explain inter thread communication with an example.
- c) Differentiate between statement and prepared statement interface.
- d) Explain the life cycle of thread.
- e) Explain methods of serversocket class with syntax.

**P.T.O.**

**Q3) Attempt any Four of the following :** **[4 × 4 = 16]**

- a) What is the difference between execute ( ), executeQuery ( ) and executeupdate ( )?
- b) Explain an architecture of hibernate?
- c) Explain methods of socket class with example.
- d) Write a JSP program to accept Name & age of voter and check whether he/she is eligible for voting or not.
- e) Write a JDBC program to delete the records of employees whose names are starting with 'A' character.

**Q4) Attempt any Four of the following :** **[4 × 4 = 16]**

- a) Write advantages and disadvantages of spring.
- b) Explain JSP tags with example.
- c) What are the advantages and disadvantages of multithreading?
- d) Write servlet program to accept two numbers from user and print addition of that in blue colour.
- e) Write a JDBC program to display the details of employees (eno, ename, department, sal) whose department is 'Computer Application'.

**Q5) Write a short note on Any Two of the following :** **[2 × 3 = 6]**

- a) Run method
- b) Statement interface
- c) HttpServlet.



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T.Y. B.B.A. (C.A.)

CA-604 : ANDROID PROGRAMMING

(2019 Pattern) (Semester - VI)

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *All questions are compulsory.*
- 2) *Draw neat diagrams wherever necessary.*
- 3) *Figures to the right indicate full marks.*

**Q1)** Attempt any Eight of the following :

**[8 × 2 = 16]**

- a) The Android \_\_\_\_\_ provides you the API libraries and developer tools necessary to build, test, and debug apps for android.
  - i) JDK
  - ii) SDK
  - iii) ADT
  - iv) All of the mentioned
- b) \_\_\_\_\_ dictates the UI and handles the user interaction to the smart phone screen.
  - i) Intents
  - ii) Fragments
  - iii) Activities
  - iv) None of the mentioned
- c) \_\_\_\_\_ is a drop-down list that allows users to select one value from a set.
  - i) CheckBox
  - ii) RadioButton
  - iii) Spinner
  - iv) All of the mentioned
- d) \_\_\_\_\_ is a specialized view switcher which will provide a smooth transition animation effect to the images while switching from one image to another.
  - i) ImageView
  - ii) ImageSwitcher
  - iii) Both i) and ii)
  - iv) All of the mentioned

**P.T.O.**

- e) How many threads are there in AsyncTask android?
- Only one
  - Three
  - AsyncTask doesn't have thread
  - Two
- f) \_\_\_\_\_ is used to perform database operations on Android such as storing, manipulating or retrieving persistent data from the database.
- MySQL
  - SQL
  - SQLite
  - All of the mentioned
- g) Cursor navigation methods include \_\_\_\_\_.
- moveToFirst
  - moveToNext
  - Both a) and b)
  - none of the mentioned
- h) \_\_\_\_\_ identifies locations on the map and used to notify the user of locations on a map and take the form of either a standard or custom icon.
- Maps
  - API keys
  - Markers
  - None of the mentioned
- i) To send SMS messages programmatically, which class is used?
- Mms
  - SmsManager
  - Both a) and b)
  - None of the mentioned
- j) The \_\_\_\_\_ arranges views in a single column or a single row. Child views can be arranged either vertically or horizontally.
- FrameLayout
  - AbsoluteLayout
  - LinearLayout
  - None of the mentioned

**Q2) Attempt any Four of the following : [4 × 4 = 16]**

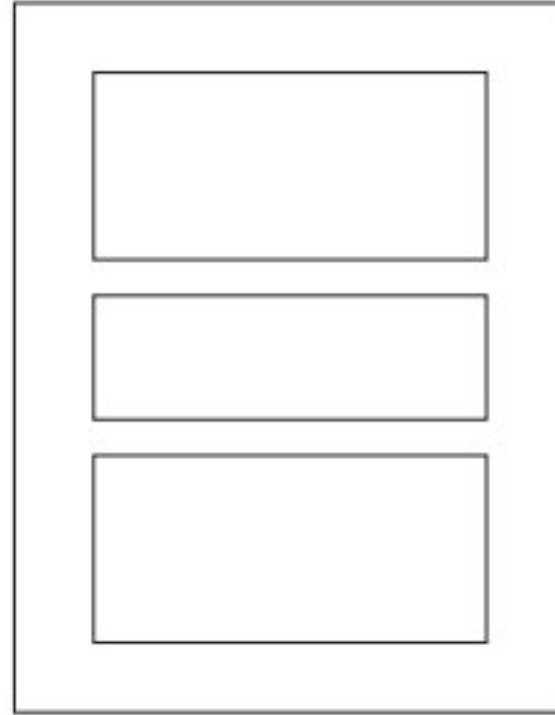
- What is Activity? With the help of diagram describe activity life cycle.
- What is ToggleButton? How to create it? Explain with example.
- How to create database in SQLite? Explain with example.
- Define Google Map. How to change views in Google Maps? Explain with example.
- Describe the Android architecture in detail.



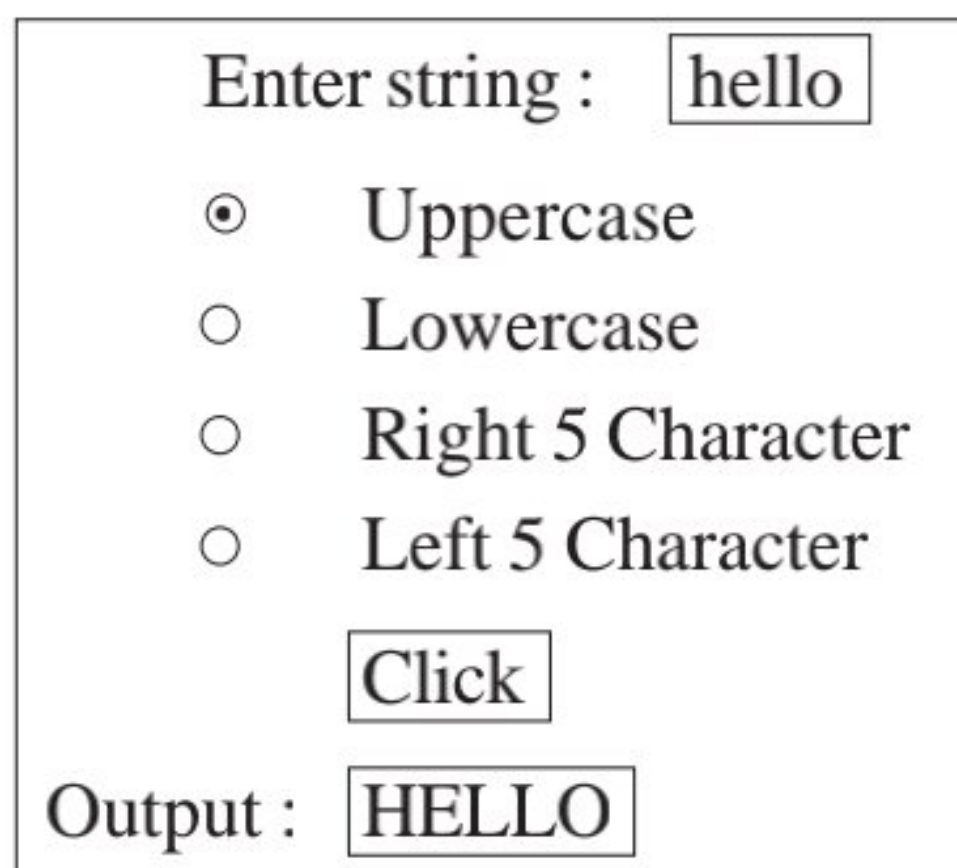
**Q3) Attempt any Four of the following :**

**[4 × 4 = 16]**

- a) Observe the following GUI and write an XML file using relative layout to create the same.



- b) Develop an application to send and receive SMS. (Write only .java and permission tag in manifest file).
- c) Develop an application to store student details like roll no, name, branch, marks, percentage and retrieve student information using roll no. in SQLite databases.
- d) Create an Android Application to perform following string operation according to user selection of radio button.



- e) Create an Android App with Logic screen. On successful login, gives message go to next activity (Without using database & use TableLayout).

**Q4) Attempt any Four of the following :**

**[4 × 4 = 16]**

- a) Write an Android program to perform Zoom In, Zoom Out operation and display Hybrid view on Google MaP.
- b) Explain Date and Time picker with its methods.
- c) Create a simple Application, which read a positive number from the user and display its factorial value in another activity.
- d) What is cursor in SQLite? Explain with example.
- e) Develop a simple calculator using Table Layout.

**Q5)** Write a short notes on any Two of the following :

**[2 × 3 = 6]**

- a) SQLiteDatabase
- b) ProgressBar
- c) Geocoding and Reverse coding



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**T.Y. B.B.A. (Computer Application)**  
**CA-604 : DOT NET FRAMEWORK**  
**(2019 Pattern) (Semester - VI)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *All question are compulsory.*
- 2) *Draw neat diagrams wherever necessary.*
- 3) *Design paper GUI.*

**Q1)** Attempt any Eight of the following :

**[8 × 2 = 16]**

- a) What is the use of CLR?
- b) What is CTS?
- c) Enlist any two operator in vB.net?
- d) Explain following Function?
  - i) MessageBox( )
  - ii) InputBox ( )
- e) Explain 'this keyword in C#?
- f) Explain constructor and Destructors In C#?
- g) Explain server object?
- h) Explain the type of menu control?
- i) Explain connected and Disconnected Architecture in ADO .net?
- j) Explain Timer control in vb.net?

**Q2)** Attempt any Four of the following :

**[4 × 4 = 16]**

- a) Explain Architecture of .net fromework?
- b) What are HTML control?
- c) Explain Asp.net basic control?
- d) What is connection object in ADO.net?
- e) Explain DataReader in ADO.net?

**P.T.O.**

**Q3) Attempt any Four of the following :** **[4 × 4 = 16]**

- a) Write a vb .net program for find max number among Entered two number.
- b) Write a vb .net program to check whether Enter string is palindrome or not.
- c) Write a vb .net program to accept a number from user throge input box and display its multiplication table into list box?
- d) Write a program in C# .net for sum of two number.
- e) Write a program in C# .net to reverse given number.

**Q4) Attempt any Four of the following :** **[4 × 4 = 16]**

- a) What is command object?
- b) Explain Event handing in ASP .net?
- c) Write a C# program to swap two number.
- d) Write a vb .net program to move the text “Pune university” continuously from left to right.
- e) Write a C# program for multiplication of matrix.

**Q5) Write a short notes on Any Two of the following :** **[2 × 3 = 6]**

- a) Method overloading in C#.
- b) Validation Control in ASP .net.
- c) Explain Data type in vb .net.

