

Total No. of Questions : 5]

SEAT No. :

**P6020**

[Total No. of Pages : 2

**[6144]-601**  
**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 indicates full marks.*

**Q1)** Attempt any EIGHT of the following (Out of TEN).

**[8×2=16]**

- a) What is OLTP?
- b) Define artificial intelligence.
- c) Define Data Frames.
- d) What is a Data Mart?
- e) What is data integration?
- f) What is Robotics?
- g) Define spark.
- h) List any two applications of artificial intelligence.
- i) Define graph mining.
- j) What is full form ETL.

**Q2)** Attempt any FOUR of the following (Out of FIVE).

**[4×4=16]**

- a) Differentiate between ROLAP and MOLAP servers.
- b) Explain FP tree algorithm.
- c) Explain the working of Spark with the help of its Architecture?
- d) What are the disadvantages of 'Hill Climbing' in artificial intelligence?
- e) Explain briefly data mining task.

**P.T.O.**

**Q3)** Attempt any FOUR of the following (Out of FIVE).

**[4×4=16]**

- a) Explain Multidimensional data model in brief.
- b) Explain data preprocessing.
- c) Explain the various search and control strategies in artificial intelligence.
- d) Differentiate between OLAP and OLTP.
- e) Explain different RDD operations in spark.

**Q4)** Attempt any FOUR of the following (Out of FIVE).

**[4×4=16]**

- a) What is Executor Memory in a Spark application?
- b) What is a heuristic function?
- c) What are the two advantages of 'Depth First Search' (DFS)?
- d) Explain the three important artificial intelligence techniques.
- e) What are the major steps involved in the ETL process?

**Q5)** Write a short note on any TWO of the following (Out of THREE). **[2×3=6]**

- a) Spark SQL.
- b) 'Water Jug Problem' in artificial intelligence with the help of diagrams and propose a solution to the problem.
- c) Data Warehouse.



Total No. of Questions : 5]

SEAT No. :

**P-6021**

[Total No. of Pages : 2

**[6144]-602**

**B.B.A. (C.A.)**

**CA-602 : SOFTWARE TESTING**

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

*Time : 2½ Hours]*

*[Max. Marks : 70*

**Instructions to the candidates:**

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

**Q1) Attempt any EIGHT of the following (out of TEN) : [8 × 2 = 16]**

- a) Explain the term performance testing.
- b) Define Big Bang Approach.
- c) Define failure and defect.
- d) Define verification testing.
- e) What is sandwich approach of integration testing?
- f) Define validation Testing.
- g) Explain sandwich approach.
- h) Explain terms - Error, Fault and Failure.
- i) Define regression testing.
- j) What is software metric?

**Q2) Attempt any FOUR of the following (out of FIVE) : [4 × 4 = 16]**

- a) Explain V-V Model of testing in detail.
- b) Explain load and Smoke testing in detail.
- c) Explain any four testing principles in detail.
- d) Explain all testing principles in detail.
- e) Differentiate between alpha and beta testing.

**P.T.O.**

**Q3) Attempt any FOUR of the following (out of FIVE) : [4 × 4 = 16]**

- a) Explain Boundary-Value analysis in details.
- b) Explain GUI testing in details.
- c) Explain Sandwich and Big-Bang approach of Integration testing.
- d) Explain Software testing life cycle with diagram.
- e) Write difference between Static and Dynamic testing.

**Q4) Attempt any FOUR of the following (out of FIVE) : [4 × 4 = 16]**

- a) Explain test case design for the login process.
- b) Stub and Driver concept in Unit testing.
- c) Explain white box testing and its techniques.
- d) Explain Capability Maturity Model (CMM) in detail.
- e) Calculate the cyclometric complexity of a code which accepts 3 integer values and print the highest and lowest value.

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

- a) Rational Robot
- b) System testing
- c) Statement coverage criteria of White-Box testing



Total No. of Questions : 5]

SEAT No. :

**P6022**

[Total No. of Pages : 2

**[6144]-603**  
**T.Y.B.B.A. (C.A.)**  
**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 indicates full marks.*

**Q1)** Answer the following (any eight) :

**[8×2=16]**

- a) Write down 2 packages of JDBC API.
- b) What is yield ( ) method?
- c) What is JDBC ?
- d) What is scriptlet tag?
- e) What is wait ( ) and notify ( ) in multithreading?
- f) What is Networking?
- g) What is Driver Manager class?
- h) What is ORM ?
- i) What is Session?
- j) What is the role of Prepared Statement?

**Q2)** Attempt any four of the following.

**[4×4=16]**

- a) Explain life cycle of servlet.
- b) Differentiate between statement and prepared statement.
- c) Explain Inter Thread communication in Multithreading.
- d) Explain JSP Architecture?
- e) Write a JDBC Program to Insert the record into patient table (Use prepared statement)

**P.T.O.**

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

**[4×4=16]**

- a) Explain JDBC Drivers with a suitable diagram.
- b) Write the use of Inet Address class with suitable Example.
- c) Differentiate between JSP and Servlet.
- d) Write a JDBC program to delete the records of students whose names are starting with 'm' character.
- e) Write a JSP program to display all the prime numbers bet<sup>n</sup> 1 to n.

**Q4)** Attempt any four of the following.

**[4×4=16]**

- a) What are the scripting Elements of JSP?
- b) What are the steps to connect to the database in Java.
- c) Explain do GET and do POST method.
- d) Write a JSP program to calculate the factorial of a given number.
- e) Write a Servlet program to display the details of employee in tabular format. Employee table structure (eno, ename, sal, design)

**Q5)** Write a short note on any two of the following.

**[2×3=6]**

- a) Generic servlet and HTTP Servlet
- b) Cookies
- c) ResultSet Inter face



Total No. of Questions : 5]

SEAT No. :

**P-6023**

[Total No. of Pages : 2

**[6144]-604**

**B.B.A. (CA)**

**CA - 604 : ANDROID PROGRAMMING**

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

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates :*

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

**Q1)** Attempt any eight of the following.

**[8 × 2 = 16]**

- a) Define JDK.
- b) What is Activity?
- c) What is Intent?
- d) What is UI?
- e) What do you mean by Text view?
- f) What is SMS?
- g) What is Date Picker?
- h) What is thread?
- i) Define reverse yeocoding.
- j) Define SQLite Data base.

**Q2)** Attempt any four of the following.

**[4 × 4 = 16]**

- a) Explain basic building blocks of Android programming.
- b) Explain Android Application structure.
- c) What is cursor in SQLite? Explain with example.
- d) Explain Android UI controls (Any 4)
- e) Explain Android layout types in detail.

**P.T.O.**

**Q3)** Attempt any four of the following. **[4 × 4 = 16]**

- a) How to create an application in Android? Explain with suitable example.
- b) Enlist and explain the best features of Android.
- c) What is Android Emulator?
- d) Create a simple Application which send - Hello! Message from one activity to another with help of Button (Use Intent).
- e) Create a simple Application which demonstrate life cycle of Activity.

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

- a) Explain types of intent in detail with suitable example.
- b) Explain service life cycle in detail.
- c) What is list view? How to use it in Android application? Explain with suitable example.
- d) Create an Android Application to find the factorial of a number and display the result on Alert Box.
- e) Create an Android Application to accept two numbers and find power and average. Display the result on the next activity on Button click.

**Q5)** Write short note on any two of the following : **[2 × 3= 6]**

- a) Unbounded services.
- b) Android JSON.
- c) Adaptor





Total No. of Questions : 5]

SEAT No. :

**P-6024**

[Total No. of Pages : 2

**[6144]-605**  
**T.Y. B.B.A. (CA)**  
**CA-604 : DOT NET FRAMEWORK**  
**(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.*
- 3) Neat diagrams must be drawn whenever necessary.*

**Q1)** Attempt any Eight of the following (out of ten)

**[8 × 2 = 16]**

- a) What is IDE?
- b) What is CLS?
- c) Explain Timer control in vb.net?
- d) Explain JIT compilers?
- e) Explain class and object in C#?
- f) What is method overloading in C#?
- g) Explain ADO.net?
- h) Explain the Range validator?
- i) What is ASP. NET?
- j) Enlist any Two Form control in VB.net?

**Q2)** Attempt any Four of the following (out of Five)

**[4 × 4 = 16]**

- a) What is control Structures? Discuss any two control structure.
- b) Explain components of .NET framework.
- c) Explain Inheritance with example?
- d) Explain Server control
- e) Explain command object?

**P.T.O.**

**Q3)** Attempt any Four of the following (out of Five)

**[4 × 4 = 16]**

- a) Write a VB.net program for blinking an image.
- b) Write a program in C# swapping of two number.
- c) Design a VB.net form to pick a date from Date Time Picker control and display day, month and year in separate text boxes.
- d) Write a vb.net program to check whether Enter string is Palindrome or not.
- e) Write a C#.net application to display the vowels from a given string.

**Q4)** Attempt any Four of the following (out of Five)

**[4 × 4 = 16]**

- a) What is constructors? Explain with suitable Example?
- b) Explain connection object and command object?
- c) Write a C# program to find area of circle.
- d) Write a vb.net program to move the text "Pune university" continuously from left to right.
- e) Write a C# program to accept and display 'n' student's details such as Roll No, Name, marks in three subject using class. Display percentage of each student.

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

- a) Event Driven Programming.
- b) Explain object oriented concept in C#.
- c) Validation control in ASP. net.

