

Total No. of Questions—5]

[Total No. of Printed Pages—3

Seat No.	
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[5163]-601

T.Y. B.C.A. (Sixth Semester) EXAMINATION, 2017

601 : ADVANCED WEB TECHNOLOGIES

(2013 PATTERN)

Time : Three Hours

Maximum Marks : 80

N.B. :— (i) *All* questions are compulsory.

(ii) Figures are required wherever necessary.

1. Attempt the following (any *eight*) : [8×2=16]

- (a) Explain the purpose of \$ this variable.
- (b) Name any *two* functions to extract basic information about classes in PHP.
- (c) Name any *two* variables of \$_SERVER array.
- (d) How to check whether a variable is set with the session ?
- (e) Name any *two* parameter of MySQL_connect().
- (f) List any *two* PHP HTTP function.
- (g) Name any *two* elements of XML document structure.
- (h) Enlist the PHP DOM's function.
- (i) Which are the parts of XML-RPC ?
- (j) Give any *two* applications of AJAX.

2. Attempt the following (any *four*) : [4×4=16]

- (a) What is Interospection ? Explain any *two* introspective function.

P.T.O.

- (b) What is sticky form ? Explain with example.
- (c) Explain how to create and select database using PHP.
- (d) Write a php program to upload the file and display its information (use \$_FILES).
- (e) Define an Interface which has methods area(), volume(), define constant PI. Create a class cylinder which implements this (use define()).

3. Attempt the following (any *four*) : [4×4=16]

- (a) Explain WSDL document structure.
- (b) Explain the features of XML.
- (c) Write a php program to accept two strings from user and check whether entered strings are matching or not (use sticky form concept).
- (d) Write a php program to capitalize of first letter of each name and check user email address contain @ symbol.
- (e) Write php script to create CD catalog using XML file.

4. Attempt the following (any *four*) : [4×4=16]

- (a) Explain cookie with example.
- (b) Explain XML DOM with example.
- (c) Explain web services.
- (d) Write a Ajax program to display list of games stored in an array on clicking OK button.
- (e) Write a php program to implement create, read, update and display operation on employee table with attributes (eno, ename, date_of_join).

5. Write short notes on (any *four*) :

[4×4=16]

- (a) XML document structure
- (b) Setting response header
- (c) Link CSS with XML
- (d) UDDI
- (e) Ajax web application model.

Total No. of Questions—5]

[Total No. of Printed Pages—3

Seat No.	
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[5163]-602

B.C.A. (Sixth Semester) EXAMINATION, 2017

602 : ADVANCE JAVA

(2013 PATTERN)

Time : Three Hours

Maximum Marks : 80

N.B. :— (i) All questions are compulsory.

(ii) Figures to the right indicate full marks.

(iii) Answer of sub-questions of each question should be attempted at one place. It should not be written separately.

1. Attempt the following (any *eight*) : [8×2=16]

- (a) Write any *four* ResultSet functions with syntax ?
- (b) What is servlet config object ?
- (c) What is use of cookies ?
- (d) What is socket ?
- (e) What are common JDBC Exceptions ?
- (f) What is use of Runnable interface ?
- (g) What is marshalling and demarshalling ?
- (h) Explain thread priority.
- (i) What is use of accept() method ?
- (j) What is Remote object ?

P.T.O.

2. Attempt the following (any *four*) : [4×4=16]

(a) What is difference between GET and POST method ?

(b) Explain thread life cycle with suitable diagram.

(c) Explain methods of ServerSocket class with syntax.

(d) Write servlet program to display Hit count.

(Hint : Hit count is number of times page visited)

(e) Write JDBC program to delete records from employee table whose designation is 'Manager'.

(Employee table structure : Empid, name, desig, dept)

3. Attempt the following (any *four*) : [4×4=16]

(a) What is manifest file ? Explain its usage.

(b) What is difference between execute(), execute Query() and execute Update() ?

(c) Write multithreading program to display drawing flag on the Applet container.

(d) Explain steps for creating a TCP connection between two computers using socket.

(e) What are different methods of session management in servlet ?

4. Attempt the following (any *four*) : [4×4=16]

(a) What are different types of JDBC Drivers ?

(b) Explain RMI architecture with suitable diagram.

(c) Explain thread synchronization with suitable example.

- (d) Write JSP program to validate user name, where user name should not be left blank and it should contain characters only.
- (e) Write JDBC program to insert record in student table ? (fields of student table are rollno, name, date of birth, address)

5. Attempt the following (any *two*) : [2×8=16]

- (a) Write a socket program to accept file name from client, check whether this file is available on server or not. If it is available then display its content on clients machine changing its case, otherwise display an error message.

Or

- (b) Write socket based client and server program to accept a number from client, read this number at server and if this number is prime then revert it to client.
- (c) Write JSP program to accept student roll number and if this rollnumber exists in database then delete it from student table. (take suitable structure of student table).

Or

- (d) Write servlet program to accept name of city from where employee belongs and display all records from employee table who belongs to that city in tabular format. (take suitable structure of Employee table).

Total No. of Questions—5]

[Total No. of Printed Pages—3

Seat No.	
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[5163]-603

BCA (Sem. VI) EXAMINATION, 2017

603 : RECENT TRENDS IN IT

(2013 PATTERN)

Time : Three Hours

Maximum Marks : 80

N.B. :— (i) *All questions are compulsory.*

(ii) *All questions carry equal marks.*

(iii) *Draw a neat diagram whenever necessary.*

1. Solve the following :

[8×2=16]

- (a) What is software metrics ?
- (b) Define the term LOC.
- (c) List the large object.
- (d) Define the term DDBMS.
- (e) What is Data Cube Technology ?
- (f) What is Data Integration ?
- (g) What is Security Attack ?
- (h) Define the term Digital Signature.

2. Answer the following (any four) :

[4×4=16]

- (a) Describe types of requirement in detail.
- (b) What is fragmentation ? Describe its types in detail.

P.T.O.

- (c) What are the advantages and disadvantages of Object Relational Database system ?
- (d) Explain the concept of DES algorithm in detail.
- (e) What is Computing ? Describe types of computing.

3. Answer the following (any *four*) : [4×4=16]

- (a) Write on advantages and disadvantages of prototyping model.
- (b) Describe need and characteristics of cloud computing.
- (c) Describe components of Data Warehouse in detail.
- (d) Describe Architecture of Data Mining.
- (e) Write on Role of Requirement Analysis in Software Process.

4. Answer the following (any *four*) : [4×4=16]

- (a) Write on Complexity metrics in detail.
- (b) Describe advantages and disadvantages of Data Replication.
- (c) Explain star schema for Data Warehouse.
- (d) What is Data Mining ? Describe its advantages and disadvantages.
- (e) Describe advantages and disadvantages of mobile computing.

5. Answer the following (any *four*) : [4×4=16]

- (a) Describe software quality assurance in detail.
- (b) Write on client server base architecture of Database System.
- (c) Write on functionalities of Data Mining in detail.
- (d) Differentiate private key and public key cryptography.
- (e) What is Green Computing ? What are the reasons of using green computing ? Describe its objectives.

Total No. of Questions—5]

[Total No. of Printed Pages—3

Seat No.	
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[5163]-604

T.Y. B.C.A. (Sixth Semester) EXAMINATION, 2017

604 : SOFTWARE TESTING

(2013 PATTERN)

Time : Three Hours

Maximum Marks : 80

N.B. :— (i) *All* questions are compulsory.

(ii) Figures to the right indicate full marks.

1. Attempt the following (any *eight*) : [2×8=16]
- (1) Define indicator.
 - (2) State the objective of testing.
 - (3) Define failure and defect.
 - (4) What is a module ?
 - (5) Explain TSL.
 - (6) State and explain drawbacks of big-bang approach of testing.
 - (7) What is a stub module ?
 - (8) Define regression testing.
 - (9) Define verification testing.
 - (10) What is sandwich approach of integration testing ?

P.T.O.

2. Attempt any *four* of the following : [4×4=16]

- (1) Differentiate between alpha and beta testing.
- (2) Explain equivalence class partitioning.
- (3) Explain in detail the testability factor of software.
- (4) Explain J unit as a testing tool in detail.
- (5) Explain the testing of help facilities.

3. Attempt any *four* of the following : [4×4=16]

- (1) Explain any *four* testing principles in detail.
- (2) Explain testing cycle with diagram.
- (3) Explain vertical approach of top-down integration i.e. depth-first approach.
- (4) Explain size-oriented metrics with example.
- (5) Explain inter-task testing with example.

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

- (1) Explain path coverage criteria of white-box testing.
- (2) Explain testing of client-server architecture.
- (3) Explain cyclometric complex. Give an example to calculate and find independent paths through cyclometric complexity.
- (4) Give difference between load and stress testing.
- (5) Explain Load Runner as a testing tool.

5. Write short notes on (any *four*) :

[4×4=16]

- (1) Gray-Box testing
- (2) Statement coverage criteria of White-Box testing
- (3) Win Runner
- (4) Security testing
- (5) Rational Robot