

Java & Advance Java (WebTech) : BCA LV

Code : 303303

BCA 3rd Semester Exam., 2022

JAVA PROGRAMMING

Time : 3 hours

Full Marks : 60

Instructions :

- (i) The marks are indicated in the right-hand margin.
- (ii) There are **SEVEN** questions in this paper.
- (iii) Attempt **FIVE** questions in all.
- (iv) Question Nos. **1** and **2** are compulsory.

1. Answer any six of the following : $2 \times 6 = 12$

- (a) Define type conversion.
- (b) What is the scope of variable?
- (c) Why is Java called an architectural neutral?
- (d) What is the purpose of byte stream?
- (e) What is the use of final keyword?
- (f) Define class and object.

(g) What is the use of package?

(h) What is inheritance?

(i) What is the use of try block?

(j) What is dynamic binding?

2. Answer any *three* of the following : $4 \times 3 = 12$

(a) Write a program to find the sum of digit of the number entered by user.

(b) Explain array list and iterator methods of collections.

(c) Write a Java program to implement runnable interface with example.

(d) How are threads synchronized?

(e) Contrast overloading and overriding methods.

3. Explain briefly about string class and discuss various methods in string class with example. 12

4. Discuss the various levels of access protection available for packages and their implications. 12

5. What is an exception? Explain how an exception can be handled in Java. Also list the benefits of exception handling. 12
6. Explain byte stream class in detail. Differentiate between input stream class and reader class. 12
7. Differentiate between applet and application. Explain applet life cycle with suitable diagram. 12

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BCA 3rd Semester Exam., 2020

JAVA PROGRAMMING

Time : 3 hours

Full Marks : 60

Instructions :

- (i) The marks are indicated in the right-hand margin.
- (ii) There are **SEVEN** questions in this paper.

(iii) Attempt **FIVE** questions in all.

(iv) Question Nos. **1** and **2** are compulsory.

- 1.** Answer any six questions : $2 \times 6 = 12$

(a) List out Java keywords.

(b) Write about one of the SELECTION statements of Java.

(c) List out the properties of static variables and methods.

(d) Write about NEW operator.

(e) List out thread properties.

(f) List out some of the sources of errors in programming.

- (g) What is byte code in Java?

(h) Define an applet.

(i) What is a package?

(j) What is class path?

- 2.** Answer any **three** of the following : $4 \times 3 = 12$

(a) Define an array and explain one-dimensional arrays in Java with an example.

(b) Define a class in Java.

(c) Explain the use of command-line arguments.

(d) Explain about deadlock.

(e) Explain thread priority.

- 3.** Explain the concept of dynamic method dispatch with an example program. 12

- 4.** Explain the following : 12

(a) Try and catch

(b) Throw

(c) Finally

5. Define the method overloading. Write a program using the concept of method overloading. 12
6. Explain the life cycle of an applet. 12
7. Define inheritance. Give various forms of inheritance and write a Java program on single inheritance. 12

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Code : 303303

BCA 3rd Semester Exam., 2019

JAVA PROGRAMMING

Time : 3 hours **Full Marks : 60**

Instructions :

(i) The marks are indicated in the right-hand margin.

*(ii) There are **SEVEN** questions in this paper.*

*(iii) Attempt **FIVE** questions in all.*

*(iv) Question Nos. **1** and **2** are compulsory.*

1. Choose the correct answer (any six) : $2 \times 6 = 12$

(a) The new operator

(i) returns a pointer to a variable

(ii) creates a variable called new

(iii) obtains memory for a new variable

(iv) tells how much memory is available

(b) Command to execute a compiled Java program is

(i) javac

(ii) java

(iii) run

(iv) execute

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(Turn Over)

(c) The order of the three top level elements of the Java source file is

(i) Import, Package, Class

(ii) Class, Import, Package

(iii) Package, Import, Class

(iv) Random order

(d) Which one of the following is not supported by OOP?

(i) Abstraction

(ii) Polymorphism

(iii) Encapsulation

(iv) Global variables

(e) From the following statements which is a disadvantage of a Java array?

(i) An array can hold primitive types data.

(ii) An array has its size that is known as array length.

(iii) An array knows only its type that it contains. Array type is checked at the compile time.

(iv) An array holds only one type of data.

(Continues)

- (f) Which method is used to change the name of a thread?
- (i) Public String getName()
 - (ii) Public void setName (String name)
 - (iii) Public void getName()
 - (iv) Public String setName (String name)

- (g) Which is used for reading streams of raw bytes such as image data and for reading streams of characters, consider using FileReader?
- (i) FileInputStream
 - (ii) FileOutputStream
 - (iii) Both (i) and (ii)
 - (iv) None of the above

- (h) An exception is an event, which occurs during the execution of a program that disrupts the normal flow of the program's instructions?
- (i) True
 - (ii) False

- (i) A package can be renamed without renaming the directory in which the classes are stored.
- (i) True
 - (ii) False

- (j) Which exception occurs when a class is not found while dynamically loading a class using the class loaders?
- (i) ClassNotFoundException
 - (ii) ClassCastException
 - (iii) NoClassDefFoundError
 - (iv) ClassDefNotFoundError

2. Answer any three of the following :

- (a) Explain why Java is machine independent.
 - (b) Explain any two ways of 'static' keyword usage.
 - (c) Brief on constructor overloading.
 - (d) Differentiate between extend and implement keywords.
 - (e) Differentiate between abstract class and interface in Java.
3. Explain the concepts of object-oriented programming supported by Java.
4. What is the role of 'finally' in exception handling? Explain with an example.
5. Discuss in detail about Applet life cycle.
6. What is an array? How are arrays declared? object created and arrays are accessed? Explain with examples.
7. Differentiate method overloading with method overriding with examples.

BCA 3rd Semester Exam., 2018

- (b) Which of these cannot be used for a variable name in Java?

- (i) Identifier
- (ii) Keyword
- (iii) Identifier and keyword

- (c) Decrement operator ‘-’ decreases value of variable by what number?

- (i) 1
- (ii) 2
- (iii) 3
- (iv) 4

- (d) What is the output of relational operators?

- (i) Integer
- (ii) Boolean
- (iii) Characters
- (iv) Double

- (e) Which of these operators is used to allocate memory for an object?

- (i) Malloc
- (ii) Alloc
- (iii) New

(num over)

BCA 3rd Semester Exam., 2018

JAVA PROGRAMMING

Full Marks : 60

Time : 3 hours

Instructions:

- (i) The marks are indicated in the right-hand margin.
- (ii) There are **SEVEN** questions in this paper.
- (iii) Attempt **FIVE** questions in all.
- (iv) Question Nos. **1** and **2** are compulsory.

GROUP—A

1. Choose the correct answer of the following
(any six) : $2 \times 6 = 12$

- (a) Literal can be of which of these data types?

- (i) Integer
- (ii) Float
- (iii) Boolean
- (iv) All of the above

Q Which of the following is a method having same name as that of its class?

- (i) Finalize
- (ii) Delete
- (iii) Class
- (iv) Constructor

Q What will s2 contain after following lines of code?

```
String s1 = "one";
String s2 = s1.concat("two")
```

- (i) one
- (ii) two
- (iii) onetwo
- (iv) twoone

Q Which of these keywords is used to define interfaces in Java?

- (i) interface
- (ii) Interface
- (iii) intf
- (iv) Intf

Q When do exceptions in Java arise in code sequence?

- (i) Run time
- (ii) Compilation time
- (iii) Can occur any time
- (iv) None of the above

Q Which of these functions is called to display the output of an applet?

- (i) display()
- (ii) print()
- (iii) displayApplet()
- (iv) PrintApplet()

GROUP—B

Q Answer any three of the following :

- (a) How to set up environment for executing a Java Program? Explain.
- (b) What do you mean by scope and lifetime of variables?
- (c) What do you mean by decision making?
- (d) Explain life cycle of a thread.
- (e) Can we overload main() method? Explain.

GROUP --C

Answer any three questions of the following :

12x3=36

- 3.** (a) What are different OOPS concepts?
(b) What is difference between object-oriented programming language and object-based programming language?
- 4.** (a) What do you mean by operator? Discuss logical operator, assignment operator, miscellaneous operators and operators precedence.
(b) Write a Java program to swap the contents of two numbers using Bitwise XOR operation.
- 5.** (a) What are different ways to compare Java String? Explain any two.
(b) Write a program in Java to implement binary search.
- 6.** (a) How to catch exceptions in Java?
Explain with suitable example.
(b) Write an applet program to display moving banner.

Turn Over /

- 7.** (a) What do you mean by reading & writing files in Java?
(b) What do you mean by directory in Java? How to create and list directory?
Demonstrate using a program.

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**BCA 3rd SEMESTER EXAM., 2014
JAVA PROGRAMMING CODE- 303303**

Time: 3 hours

Full Marks: 60

Instructions:

- i. The Marks are indicated in the right -hand margin.
 - ii. There are **SEVEN** questions in this paper.
 - iii. Attempts **FIVE** question in all.
 - iv. Question Nos. **1** and **2** are compulsory.

- 1.** Choose the correct one / Answer question of the following (any six). $2*6=12$

- (a) A methods in an abstract class must be declared abstract.

- (b) What is the value of Y in a given program segment?

```
Int a=5;      int b=6;      Y= b++ + ++a;      System.out.println(Y);
```

- (c) If m and n are int type variables, what will be the result of the expression $m \% n$,

When $m = -14$ and $n = -3$?

- (I) 4 (II) 2

- (III) -2 (IV) None of the above

- (d) Which of the following statement is valid array declaration?

- (I) int x(); (II) float y[];

- (III) double [] z; (IV) t int[];

- (e) The methods `wait()` and `notify()` are defined in

- ## (V) Java. long.Thread Group

- (f) Given the following code:

Class ABC {int x=10; }

Class PQR extends

ABC b=new ABC();

```
PQR d=new PQR();
```

The statement -

`iSystem.out.println(b.x+" "+d.x+" "+bd.x);`

Will produce the output

- | | |
|----------------|---------------|
| (I) 10 20 20 | (II) 10 20 10 |
| (III) 20 10 20 | (IV) 20 20 10 |

(g) The set BackGround () method is part of the class

- | | |
|-----------------|----------------|
| (I) Graphics | (II) Applet |
| (III) Component | (IV) Container |
| (V) Object | |

(h) When we implement the runnable interface, we must define the method

- | | |
|---------------|------------------|
| (I) start () | (II) init () |
| (III) run () | (IV) runnable () |
| (V) resume () | (VI) main () |

(i) Which of the following keyword is used to control access to a member?

- | | |
|-----------------|----------------|
| (I) default | (II) abstract |
| (III) protected | (IV) interface |
| (V) public | |

(j) Which of the following will produce a value of 10, if $x=9.7$?

- | | |
|----------------|---------------|
| (I) floor (x) | (II) abs(x) |
| (III) rint (x) | (IV) round(x) |
| (V) ceil () | |

2. Answer any three of the following:

$4*3=12$

- (a) How is Java strongly associated with the internet?
- (b) What is empty statement? Explain its usefulness?
- (c) What is constructor? What are its special properties?
- (d) What is vector? How is it different from an array?
- (e) How do we tell Java that we want to use a particular package in a file?

Answer any three of the following:

$12*3=36$

3. What is the significance of 'super' keyword in an inheritance? Explain with an example how

Subclass class can superclass constructor and how super keyword can access superclass member.

4. What is static import? How is it useful? Using package access and importing packages

Technique, write a program to find the largest among three numbers.

5. Describe the compete life cycle of a thread. Write a program to illustrate “implementing the runnable Interface”

6. Explain how to rethrow an exception. Write a program to create a try block that is likely to generate three types of exception and then incorporate necessary catch blocks to catch and handle the appropriately .

7. Write down the methods defined by input stream. Write a java program that demonstrates random access I/O which writes six double to a file and then reads them back in non-sequential order.

BCA 6th Semester Exam., 2024

WEB TECHNOLOGY

Time : 3 hours Full Marks : 60

Instructions :

- (i) The marks are indicated in the right-hand margin.
- (ii) There are **SEVEN** questions in this paper.
- (iii) Attempt **FIVE** questions in all.
- (iv) Question Nos. **1** and **2** are compulsory.

1. Answer any six of the following questions :

$$2 \times 6 = 12$$

- (a) What is XML namespace?
 - (b) Define basic structure of XML.
 - (c) Mention any two link states of CSS.
 - (d) What are pseudo-elements in CSS?
 - (e) Which programming languages can be used in server side scripting?
 - (f) What is the difference between HTML and XHTML?
- (g) What is the syntax of JSP declaration tag and why is it used?
 - (h) Why is HEAD method used?
 - (i) How does XMLHttpRequest object work in AJAX?
 - (j) How to access field value by document object in JavaScript?
- 2. Answer any three of the following questions :**
- $$4 \times 3 = 12$$
- (a) Illustrate the basic steps of JSP life cycle.
 - (b) How does GET differ from POST method of HTTP? Mention any three differences.
 - (c) Why is JDBC important? What types of JDBC driver can be used?
 - (d) Describe the main components of AJAX using suitable diagram.
 - (e) What are events in JavaScript? Mention five common user events and their role.

(3)

Answer any *three* of the following questions :

$$12 \times 3 = 36$$

3. Mention five methods of non-primitive data-type of JavaScript using suitable examples.
4. Discuss the methods to add CSS using suitable examples.
5. Describe various methods of document object model.
6. Explain HTML components and their uses.
7. Explain CSS selectors with suitable examples.

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BCA 6th Semester Exam., 2022

WEB TECHNOLOGY

(Elective—1)

Time : 3 hours

Full Marks : 60

Instructions :

- (i) The marks are indicated in the right-hand margin.
- (ii) There are **SEVEN** questions in this paper.
- (iii) Attempt **FIVE** questions in all.
- (iv) Question Nos. **1** and **2** are compulsory.

1. Answer any six of the following : $2 \times 6 = 12$

- (a) What is Blogging?
- (b) What is Grouping?
- (c) What is the CSS clear property?
- (d) What is a Tag?
- (e) What is a Hyperlink?
- (f) What is page directive?
- (g) Define DOM.

(h) What is servlet?

- (i) What is the purpose of JDBC?
- (j) What is script lets?

2. Answer any three of the following : $4 \times 3 = 12$

- (a) Explain server-side scripting and its need.
- (b) Explain rich Internet applications.
- (c) Explain how to display XML documents.
- (d) Explain DQM collections and styles.
- (e) Explain exception handling using JSP.

3. Discuss the life cycle of JSP. 12

- 4. What do you mean by cookies and sessions? 12
- 5. Discuss managing e-mail using JSP. 12
- 6. Write down the element access in JavaScript. 12
- 7. Explain how to traverse and modify DOM tree. 12

(Turn Over)

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Java & Advance Java (WebTech) : MCA LV

MCA (DUAL DEGREE)
(SEM VI) THEORY EXAMINATION 2017-18
INTERNET & JAVA PROGRAMMING

Time: 3 Hours

Total Marks: 100

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief. $2 \times 10 = 20$

- a. What is Internet? Explain different type of Internet connections.
- b. Explain various services of internet.
- c. What is E-mail? Explain advantages of E-mail.
- d. Define JVM. What do you mean by Byte codes?
- e. What is the “finally” block?
- f. What are the different ways to create the thread?
- g. Discuss the role of JSP in development of a website.
- h. What do you mean by JAR filters?
- i. What is meant by a property in Java Beans?
- j. What are the functions of a servlet?

SECTION B

2. Attempt any three of the following: $10 \times 3 = 30$

- a. What do you mean by classes and objects? Explain with suitable example and how objects and classes are created in Java.
- b. What is the difference between Application and Applet? Explain how will you write a simple applet to display hello world message.
- c. What is the difference between JavaBeans and EJB? Give any five beans available in BDK.
- d. If you create two threads in your program. How many threads actually run? Explain the complete flow of execution of threads inside a program?
- e. Explain the principles of Remote Method Invocation with the help of a block diagram.

SECTION C

3. Attempt any one part of the following: $10 \times 1 = 10$

- (a) Write a program to count the number of words and characters in a string.
- (b) Discuss the tools available in JDK? How do they help in application development?

- 4. Attempt any one part of the following: 10 x 1 = 10**
- (a) What is the main difference between Readers/Writers and Input/Output streams? Give a few subclasses of Reader and Writer Class?
 - (b) Which is the alternative approach to implement multiple inheritances in Java? Explain, with an example?
- 5. Attempt any one part of the following: 10 x 1 = 10**
- (a) What do you understand by JDBC? What are the various steps for using JDBC? Write a program to demonstrate these steps.
 - (b) Write a program to enter five integers through an array and find out the smallest number.
- 6. Attempt any one part of the following: 10 x 1 = 10**
- (a) Write a program in Java to demonstrate communication using TCP/IP i.e. using socket:- Write a separate code for a server and client program. The program should display the contents of the files specified in a server on to the client.
 - (b) What is the difference between process based and thread-based Multitasking? Give the two ways by which a thread can be created using Java. Write a short program to demonstrate the creation of a new thread by extending the thread class.
- 7. Attempt any one part of the following: 10 x 1 = 10**
- (a) What do you understand by Layout manager? Illustrate three type of layout available in Java with the help of suitable syntax.
 - (b) What do you mean by Exception? What is checked and unchecked exception? Explain Exception chaining.

MCA (Integrated)
(SEM V) THEORY EXAMINATION 2019-20
JAVA PROGRAMMING

Time: 3 Hours**Total Marks: 70****Note:** 1. Attempt all Sections. If require any missing data; then choose suitably.**SECTION A**

- 1. Attempt all questions in brief. 2 x 7 = 14**

(a)	Enlist the protocol names used for sending and receiving E-Mail?
(b)	What do you mean by VOIP?
(c)	Explain the term socket.
(d)	Is JDK or JRE same or different?
(e)	What is RPC?
(f)	What do you understand by Layout Manager in Java?
(g)	How is Applet different from normal Java program?

SECTION B

- 2. Attempt any three of the following: 7 x 3 = 21**

(a)	What is E-mail security and why it is necessary?
(b)	What is Java? Compare C++ with Java.
(c)	What is the difference between COM/DCOM and RMI/CORBA?
(d)	What is thread? Explain life cycle of a thread with proper diagram.
(e)	What do you mean by Encapsulation? Explain with an example.

SECTION C

- 3. Attempt any one part of the following: 7 x 1 = 7**

(a)	What are the various hardware and software requirements of video conferencing?
(b)	Explain the following terms: i). Internet Service Provider ii). Backbone Service Provider iii). Network Access Point Operator.

- 4. Attempt any one part of the following: 7 x 1 = 7**

(a)	What do you understand by abstract class? How do we benefit by defining a class as an abstract class?
(b)	What is the meaning of “throwing an exception”? When does an exception throw?

- 5. Attempt any one part of the following: 7 x 1 = 7**

(a)	Describe different types of Layout Manager used in Java using example
(b)	What do you understand by event handling in Java? Give an example of any event like mouse event, keyboard event and windows events.

- 6. Attempt any one part of the following: 7 x 1 = 7**

(a)	What is Java Bean? Differentiates Java Bean with Enterprise Java Bean.
(b)	Write a JDBC program to display record from MySQL database table “Employee” where emp_id is greater than 20 and less than 99.

- 7. Attempt any one part of the following: 7 x 1 = 7**

(a)	What is servlet? Explain the life cycle of Servlet. Write a servlet program to display parameter post by an HTML page.
(b)	What do you mean by Cookie? Write a servlet program which sets some cookie on the client machine that must be expires within ½ hours.



Printed Pages : 3

MCA - 403

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 1474

Roll No.

MCA

(SEM. IV) EXAMINATION, 2006-07
INTERNET & JAVA PROGRAMMING

Time : 3 Hours]

[Total Marks : 100]

Note :

- (1) Attempt all questions.
- (2) All questions carry equal marks.
- (3) Be precise in your answer.

1 Attempt any **four** parts of the following : **5×4=20**

- (a) What is Internet? What are web addresses? Explain the general syntax of web address.
 - (b) What are E-mails? How are they sent? Explain the composition of any E-mail address.
 - (c) Discuss the utility of Netscape Navigator Browser of Internet.
 - (d) Explain the purpose of following :
 - (i) XML
 - (ii) HTML
 - (iii) DNS
 - (iv) ISP.
 - (e) Write short notes on the following :
 - (i) ISDN
 - (ii) FTP.
 - (f) What are the H/W and S/W requirements for conferencing?

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1

[Contd...]

2 Attempt any **four** parts of the following: **5×4=20**

- (a) Explain why Java is considered as the best language for Internet applications.
- (b) What do you mean by classes and objects? Explain with suitable examples and how objects and classes are created in Java?
- (c) Define the following with example.
 - (i) Encapsulation
 - (ii) Inheritance
- (d) Write a program in Java to create first 100 Fibonacci numbers.
- (e) What do you stand by multithread programming? Explain with a simple suitable example.
- (f) Discuss various primitive data types supported by Java.

3 Attempt any **two** parts of the following :

- (a) (i) What are the advantages of using JDBC with Java?
 - (ii) What are the different types of statements available in JDBC? Where do we use these statements?
- (b) Assume that there is a table named as student in MS-Access with the following fields: Std_Roll_no., name, course, ph_no. Write a Java program to insert and then display the records of this table using JDBC.
- (c) Write short notes on the following:
 - (i) Toggle buttons
 - (ii) Combo box
 - (iii) Tabbed Panes
 - (iv) Scroll Panes.

4 Attempt any **four** parts of the following :

- (a) What is a Java Bean? Discuss the advantages of Java Bean.
- (b) Describe an utility that enables to configure a set of Beans, connect them together, and produce a working application.
- (c) What do you mean by JAR filers? Discuss.
- (d) What do you mean by state of Bean. In this reference describe indexed properties of a class with the help of suitable example.
- (e) Define RMI. Give a simple client-server application using RMI.
- (f) Define Enterprise Java Beans.

5 Attempt any **four** from the following :

- (a) Discuss the role of JSP in development of websites.
 - (b) Why do we need inter servlet communication?
 - (c) Write a short note on thread-safe servelets.
 - (d) What do you mean by HTTP Redirects.
 - (e) Define the following in brief
 - (i) Servlet life cycle
 - (ii) Debugging servlets.
 - (f) Define cookies? How they are used in retrieving the information from clients.
-

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 7311

Roll No.

MCA.

(SEMESTER-IV) THEORY EXAMINATION, 2012-13

INTERNET & JAVA PROGRAMMING

Time : 3 Hours]

[Total Marks : 100

SECTION – A

1. Attempt all question parts : **$10 \times 2 = 20$**

- (a) How is Java more secured than other languages ?
- (b) What are collections (or containers) in object oriented program design ?
- (c) In your opinion, why is Java considered important to internet ?
- (d) What do you mean by user defined exception ?
- (e) What do you mean by inheritance ?
- (f) How many types of socket available in Java ?
- (g) What do you mean by method invocation ?
- (h) Name the borders provided by Swing.
- (i) What are wildcards in SQL ?
- (j) Define RMI.

SECTION – B

2. Attempt any three question parts : **$3 \times 10 = 30$**

- (a) Write a short note on video conferencing.
- (b) Discuss about the event-delegation model in Java AWT. How many layout managers available in Java ? Discuss.
- (c) What is the difference between AWT and Swing ? In what way JButton is better than Button class ? Explain with example.
- (d) What are wildcards in SQL ? If you want to use the percent sign (%) as the present sign and not have it interpreted as the SQL wildcard used in SQL LIKE queries, how to do that ?
- (e) What is a servlet ? Explain the three methods available in Java that play an important role in the life cycle of a servlet.



SECTION - C

- Attempt all questions :** **$5 \times 10 = 50$**
- 3.** **Attempt any two parts :** **$2 \times 5 = 10$**
- (a) Write a short note on sending and receiving secure E-mail protocols.
 - (b) Explain the working of IP Telephony with an example.
 - (c) Explain how an ISP gets chosen.
- 4.** **Attempt any one part :** **$1 \times 10 = 10$**
- (a) What is difference between implicit and explicit important statements ? Which one take less time for compilation and why ? Discuss the life cycle of Applet program for displaying "I am here" at the middle of the applet.
 - (b) Write a program for displaying a frame and place a label at the middle of the frame with help of border layout manager.
- 5.** **Attempt any one part :** **$1 \times 10 = 10$**
- (a) Write a program in Java to create a button using Swing; on clicking on this button the current application should close. Explain the output also.
 - (b) What is a JDBC Driver ? Explain all the functions of a JDBC Driver and their advantages and disadvantages.
- 6.** **Attempt any one part :** **$1 \times 10 = 10$**
- (a) Explain the following terms with suitable code and examples :
 - (i) Writing RMI Services
 - (ii) Writing RMI Clients
 - (iii) Running the Client and the server
 - (b) List all the properties of Java Beans. Explain any two of them with suitable example (program). Explain the role of manifest and jar files.
- 7.** **Attempt any two parts :** **$2 \times 5 = 10$**
- (a) Write a Servlet code that uses cookies to store the number of times a user has visited your Servlet.
 - (b) Compare life cycle of Servlet and JSP with one simple code.
 - (c) Explain briefly about Thread Safe Servlets.



Printed Pages : 3

MCA314

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 7311

Roll No.

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M.C.A

(SEM III) ODD SEMESTER THEORY EXAMINATION 2009-10 INTERNET & JAVA PROGRAMMING

Time : 3 Hours]

[Total Marks : 100

Note : Attempt all questions.

1 Attempt any four parts : $5 \times 4 = 20$

- (a) What is an internet? What protocols are used by computers connected to the internet?
- (b) What is FTP and how does it works?
- (c) Write the facilities provided by an e-mail system.
- (d) What is URL? What are the different parts of a URL? Explain the purpose of each part in brief.
- (e) Explain CSMA/CD.
- (f) Give the H/W and S/W requirements for video-conferencing.

2 Attempt any four parts : $5 \times 4 = 20$

- (a) Why is Java called machine independent language? Discuss the functionality of Java virtual machine.



- (b) What is thread? Discuss the advantages of threading.
- (c) What do you mean by overloading and overriding methods in Java? Explain with suitable examples.
- (d) Describe Java Applet and also discuss the different stages in the life cycle of an applet.
- (e) Define the following terms in context of AWT
- (i) canvas
 - (ii) Event
 - (iii) Frame
 - (iv) Dialog
 - (v) Button
- (f) Explain inheritance with example.

3 Attempt any **two** parts : **10×2=20**

- (a) What is JDBC? How JDBC is used to connect with data base? Illustrate with example.
- (b) Differentiate between serlets and applets. How trees are implanted in Java Swing ? Give suitable examples for illustrations. It should be able to recognise mouse click on it.
- (c) What is the purpose of combo box? Give an implementation which creates a combo box and add it to a panel.

4 Attempt any **two** parts : **10×2=20**

- (a) What is a Java Bean? What are the advantages of Java Bean? Why developer use application builder tools with Java Bean?



- (b) (i) Give the purpose and syntax of jar commands.
Further give the command for extracting files
from a JAR file.
- (ii) Discuss the steps to be followed to create
new bean.
- (c) (i) What is RMI? Discuss its advantages.
(ii) Define socket. How can we use socket
programming in Java?

Write short notes on any two of the
following :

$10 \times 2 = 20$

- (a) JSP
(b) Cookies
(c) Strings handling in Java.
-



(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 7311

Roll No.

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M.C.A.

**(SEM. III) ODD SEMESTER THEORY EXAMINATION
2010-11**

INTERNET & JAVA PROGRAMMING

Time : 3 Hours

Total Marks : 100

Note : Attempt all questions.

1. **Attempt any four parts :** **(5×4=20)**
 - (a) Explain Internet and why we use Internet.
 - (b) What are the different layers in the TCP/IP networking model ? Describe the facilities provided by the TCP.
 - (c) What is an Internet Address Space ? How does the Internet work ?
 - (d) Explain E-mail architecture.
 - (e) What is Telnet ? Explain the working of Telnet.
 - (f) Discuss Voice and Video conferencing.

2. **Attempt any four parts :** **(5×4=20)**
 - (a) How is Java more secured than other languages ? What is a default constructor ? How are an object's instances initialized; if a class has only a default constructor ?
 - (b) Write a program in Java to display the names and roll numbers of students using arrays. Incorporate mechanisms to handle possible exceptions.
 - (c) What are packages in Java ? What is difference between abstract class and interface ?

- (d) Describe the different stages in the life cycle of an Applet. Distinguish between init () and start () methods.
- (e) Explain the difference between Java AWT and Swing. Discuss drawing methods of the Graphics class.
- (f) What is the difference between multiprocessing and multithreading ? Write a program in Java for generating two threads, one for printing even numbers and the other for printing odd numbers.
3. Attempt any **two** parts : **(10×2=20)**
- (a) List the choice components that can support multiple selections. What is the difference between a normal menu and a context menu (pop-up menu) ? Write a simple program that shows the usage of both menus and pop-up menus.
- (b) Briefly describe various types of text component provided by Java swing and their usage. What is the major difference between the radio button and check box button by taking suitable example.
- (c) Explain the major components provided by JDBC. Write an interactive program that can query employee information via an employee database.
4. Attempt any **two** parts : **(10×2=20)**
- (a) What are steps followed for creating a juggler bean with start and stop juggling buttons. Discuss the convention about how to implement a Java object as JavaBean component.
- (b) What is Java RMI ? What are the major benefits of programming with Java RMI ? Explain how to enhance the RMI application by enabling transport layer security mechanism.

- (c) What is JavaBean ? What are the major services of Java-Bean ? Explain how JavaBeans are used in the context of JSP especially how its properties are getting set via the request.

Attempt any two parts : **(10×2=20)**

- (a) What is a Servlet ? Explain how a Servlet handles HTTP requests via an example. Write a simple Servlet program displaying the current Date for each request.
- (b) Describe the relationship between JSP and Servlet. Explain the internal JSP work mechanism. Write a simple JSP page that prints all the odd numbers in the first row of the table and all the even numbers in a second row of the table (numbers from 1 to 100).
- (c) Write short notes on any two :
- (i) Cookies and Session
 - (ii) JSP Expression Language
 - (iii) JSTL.

Or
What is the life cycle of an Applet ? Illustrate common methods to create the applet.

5. What do you mean by EJB ? Explain in detail with the help of the suitable diagram.

Or

What do you understand by Layout manager ? Illustrate three types of layout available in Java with the help of suitable syntax.

6. What is the difference between RPC and RMI ? Which one is light weighted ? Explain steps to establish a connection between client and server using RMI.

7. What is Java Server Page ? Explain with suitable code.

(Following Paper ID and Roll No. to be filled in your Answer Book)											
PAPER ID : 7311	Roll No. <table border="1"><tr><td>1</td><td>0</td><td>2</td><td>9</td><td>0</td><td>1</td><td>4</td><td>0</td><td>0</td><td>9</td></tr></table>	1	0	2	9	0	1	4	0	0	9
1	0	2	9	0	1	4	0	0	9		

M.C.A.

(Semester-III) Theory Examination, 2011-12

INTERNET & JAVA PROGRAMMING

[Time : 3 Hours]

Note: Attempt questions from each Section as indicated.

Section-A

1. Attempt *all* parts of this question. Each parts carries 2 marks. Define each answer precisely in 50–75 words : $2 \times 10 = 20$
- Explain the various services of internet.
 - Can ISP provide the same IP addresses to two different machines over internet ? Justify your answer.
 - Why Java is known as pure object oriented language ?
 - Define JVM. What do you mean by Bytecodes?
 - Consider the following program. Will the program run successfully ? Justify your answer, if it is yes then explain, if not explain the substitute method to run the program successfully.

```

abstract sortable
{
    public abstract int compare(To(object0));
}

class employee extends sortable
{
    .....
}

class helper extends employee
{
    .....
}

```

- (a) What constitutes an internet ? Explain in brief the role of Domain Name System (DNS) over internet with a suitable block diagram.
- (b) What is an exception ? What are the methods of handling exception in java ?
- (c) What are the steps of database connectivity in Java ? Explain with suitable example.
- (d) What is the difference between Application and Applet ? Explain how will you write a simple applet to display hello word message.
- (e) What is Servlet ? Explain the life cycle of Servlet.

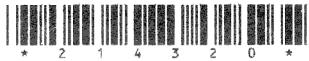
Section-C

- Attempt *all* questions of this Section. Each question carries 10 marks. Define each answer in 300–500 words : $10 \times 5 = 50$
3. What do you understand by Streams ? Explain the purpose of various types of streams.
 - Or
 - What are packages in Java ? Illustrate with appropriate example, how can you create and use your packages in Java.

Section-B

2. Attempt any *three* parts of this question. Each question carries 10 marks. Define each answer in 100–200 words : $10 \times 3 = 30$
4. Explain how can you set background color of an applet. What are the ways to draw and fill shapes with colored marker ?

- (f) What are the hardware and software requirements for video conferencing?
2. Attempt any four parts of the following: (5x4=20)
- What are bridges and gateways? Explain their function briefly.
 - Discuss the functions of various layers of TCP/IP protocol.
 - What do you mean by Classes and objects? Explain with suitable examples and how objects and classes are created in Java.
 - Discuss various primitive data types supported by Java.
 - Write a function for comparing two given strings. [Do not use pre-defined classes in Java.]
 - What is Package in Java? What is method in Java ? Also explain the scope of method with example.
 - Attempt any two parts of the following : (10x2=20)
 - What is the structure of JDK directory? Write a program in Java to demonstrate the arithmetic operators (+, -, *, and /) on complex numbers. For each arithmetic operator write separate function and create appropriate class for complex numbers.
- (b) (i) Write a short note on operator precedence in Java.
- (ii) Discuss various control flow statements with proper syntax in Java.
- (c) (i) What do you mean by an abstract class? How abstract classes are implemented in Java ? Discuss with an example using Java.
- (ii) Write a short note on exception handling in Java.
4. Attempt any two parts of the following : (10x2=20)
- (i) What is a Java Bean? Discuss the advantage of Java Bean.
 - (ii) What do you mean by JAR files ? Discuss.
 - Write a program in Java to demonstrate communication using TCP/IP i.e. using sockets .
 - Write separate code for a server and client program. The program should display the contents of the file specified in a server on to the client.
 - (i) Define RMI. Give a simple client - server application using RMI.
 - (ii) Discuss the role of a dialog box. How it is created?



(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 214320

Roll No.

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M. C. A.

(SEM. III) (ODD SEM.) THEORY

EXAMINATION, 2014-15

INTERNET & JAVA PROGRAMMING

Time : 3 Hours]

[Total Marks : 100

Note: (1) Attempt all Questions.

(2) All Questions carry equal marks.

1 Answer any four of the following : **(5X4=20)**

- a) Define video conferencing. Explain the type of video conferencing.
- b) Define Internet. Explain how Internet is different from extranet.
- c) What is the Thread ? Explain the use of synchronized block and method in multithreading programming of Java.
- d) What is E-Mail ? Explain how E-Mail travels from sender to destination host.
- e) Define a package. Explain pre-define and user define package.

214320]

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[Contd...

2 Answer any **two** of the following : **(10X2=20)**

- a) What is Constructor ? Why constructor does not have return type ? Explain it with an example.
- b) What is polymorphism ? Explain dynamic and static polymorphism in Java with example.
- c) What is RMI ? Explain RMI architecture with block diagram.

3 Answer any **two** of the following : **(10X2=20)**

- a) What is the difference between Interface and Abstract Class ? Explain with example.
- b) Write short notes on any **two** of the following :
 - 1. Wrapper Classes
 - 2. Abstraction
 - 3. Encapsulation.
- c) What do you understand by event handling in Java ? Explain mouse, keyboard or windows events with example

4 Answer any **two** of the following : **(10X2=20)**

- a) What is Java Bean ? What are the advantages of Java Bean ? Write the difference between Java Bean and Enterprise Java Bean.
- b) What do you mean by Socket ? Write a small client/server Socket based program in Java.
- c) What is JDBC ? Explain types of Java driver available for database connectivity

5 Answer any two of the following : (10X2 = 20)

- a) Define Servlet. Explain the life cycle of Servlet. Write a small login page using Servlet.
 - b) What do you mean by Session Tracking ? Explain all session tracking techniques with example of one of them.
 - c) What do you mean by ServletContext ? How it is different from ServletConfig explain with an example?
-

(Following Paper ID and Roll No. to be filled in your Answer Book)

Paper ID : 214304

Roll No.

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MCA

(SEM. VII) THEORY EXAMINATION 2015-16

INTERNET & JAVA PROGRAMMING

[Time:3 hours]

[Total Marks:100]

SECTION-A

1. Attempt all parts. Write answer of each part in brief.

(10x2=20)

- (a) Write two advantages of JSP over Servlet.
- (b) What is the difference between an Abstract class and an Interface?
- (c) Which containers use a border layout as their default layout?
- (d) What is more advisable to create a thread, by implementing a Runnable interface or by extending Thread class?
- (e) Define the purpose of following protocols or services. FTP, HTTP

- (f) What are the main components of an Email?
- (g) How does “WWW” differ from Internet?
- (h) What are wrapped classes?
- (i) Define a package. Explain pre-define and user define package.
- (j) Define Abstraction? Give one example.

SECTION-B

Attempt **any five** questions from this section. (5x10=50)

- 2. What is Constructor? Why constructor does not have return type as method returns? Explain it with an example.
- 3. (a) Java uses “garbage collection” for memory management. Explain what is meant here by garbage collection. What is the alternative to garbage collection?

(b) Given are two one-dimensional arrays A and B which are stored in ascending order. Write a program to merge them into a single sorted array C that contains every item from arrays A and B, in ascending order.

4. What is JDBC? Explain types of Java driver available for database connectivity. Also write a program as an example.
5. Write a program in Java to create a button using Swing; on clicking on this button the current application should be closed. Explain the output also.
6. (a) Illustrate with the help of program code how a JTextField is created and is added to the content pane?
(b) Explain what is meant by *input focus*? How is the input focus managed in a Java GUI program?
7. Define Java Bean? Write the difference between Java Bean and Enterprise java Bean. Also write steps to create jar file in java Beans.
8. Define polymorphism? Explain function overloading and overriding as runtime and compile time polymorphism in Java? Give an example for it.
9. What do you mean by Servlet Context? How it is different from Servlet Config explain with an example?

SECTION-C

Attempt **any two** questions from this section. (2x15=30)

10. What is Servlet? Explain the life cycle of Servlet. Write a login web page using Servlet.
11. What do you mean by Session Tracking? Explain session tracking techniques with the help of example.
12. What do you understand by event handling in Java? Explain mouse or keyboard events with example.

—X—

Printed Pages - 3

NMCA-314

(Following Paper ID and Roll No. to be filled in your Answer Books)

Paper ID : 2012363

Roll No.

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MCA

Regular Theory Examination (Odd Sem - III), 2016-17

INTERNET AND JAVA PROGRAMMING

Time : 3 Hours

Max. Marks : 100

Section - A

1. Attempt all Parts. All parts carry equal marks.

Write answer of each part in short. (10×2=20)

- a) Define Internet and Intranet.
- b) What is E-mail systems?
- c) State the working of web browser?
- d) Define a Package. How it is helpful in programming?
- e) What are the advantages of using JDBC with java?
- f) Differentiate between Java Swing and AWT.
- g) How JAR files works?

NMCA-314

- h) What is an Enterprise Java Bean?
- i) Write any two advantages of JSP over Servlet?
- j) What do you mean by HTTP redirects?

Section - B

Note: Attempt any five questions from this section.

(5×10=50)

- 2. Describe SMTP in detail?
- 3. What are the hardware & Software requirements of video conferencing?
- 4. Explain the data types in Java with suitable example? Write a program to addition of two[2×2] matrix in Java.
- 5. What is multithreading in Java? Explain it with example.
- 6. What is the main difference between an application program and applet program? What are the advantages of Java Swing over Java Applet?
- 7. Write short notes on the following:
 - i) Toggle buttons
 - ii) Combo box
 - iii) Tabbed panes
 - iv) Scroll panes
- 8. What is a Java Bean? Discuss its and advantages.

NMCA-314

9. What do you mean by Servlet Context? How it is different from Servlet Config with an example.

Section - C

Note: Attempt any two questions from this section.

(2×15=30)

10. What are the various characteristics of JDBC? Identify the various steps for using JDBC. Explain the working of JDBC Drivers?
11. Define Servlet. Explain the life cycle of servlet. Write a login web page using jsp with the help of servlet.
12. What do you understand by event handling in Java? Explain mouse or keyboard events with an example.?



MCA
(SEM III) THEORY EXAMINATION 2018-19
INTERNET & JAVA PROGRAMMING

Time: 3 Hours**Total Marks: 100**

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief. 2 x 10 = 20

- a. Who is called ‘Father of Java’? What is full form of JDK?
- b. What is difference between ‘equals ()’ and ‘==’?
- c. What is JDBC? Which package in java contains API for JDBC?
- d. Differentiate ‘Class Variable’ and ‘Instance Variable’.
- e. Which methods used to change case of String?
- f. Differentiate usage of ‘Runnable’ and ‘Thread’ for Multithreading.
- g. What are web addresses? Explain the general syntax of web address.
- h. How are they sent Email? Explain the composition of any E-mail address.
- i. Write a program in Java to create first 100 Fibonacci numbers.
- j. Define the following with example.
 - I. Encapsulation
 - II. Inheritance

SECTION B

2. Attempt any three of the following: 10 x 3 = 30

- a. What is the difference between process based and thread-based Multitasking? Give the two ways by which a thread can be created using Java. Write a short program to demonstrate the creation of a new thread by extending the thread class.
- b. What is the main difference between an application and applet? What are the advantages of Java swings over Java applets?
- c. Write a Java program to display the month names by JList and display the Days by JComboBox.
- d. What is JDBC? What is its role in application development? Describe JDBC in detail with suitable example.
- e. What do you mean by dynamic modeling? What is the significance of dynamic modeling in Object Oriented Development? Explain.

SECTION C

3. Attempt any one part of the following: 10 x 1 = 10

- (a) Write a Java program to display the month names by JList and display the Days by JComboBox.
- (b) Explain the role of RMI in Java. Difference between RMI and RPC.

- 4. Attempt any *one* part of the following:** **10 x 1 = 10**
- (a) What is Method overloading and Method overriding? Write a program to Method overriding in java?
 - (b) What is object and class concept? Explain the different layouts available in Java? Explain each with suitable skeleton code.
- 5. Attempt any *one* part of the following:** **10 x 1 = 10**
- (a) By means of a diagram show the various streams found in the `java.io` package? Write a program to demonstrate how to use a stream Tokenizer to count the number of words in a file.
 - (b) Write a program in Java to demonstrate communication using TCP/IP i.e. using sockets:-
Write a separate code for a server and client program. The program should display the contents of the file specified in a server on to the client.
- 6. Attempt any *one* part of the following:** **10 x 1 = 10**
- (a) What is the difference between adaptive and non-adaptive routing? Explain any one adaptive and one non-adaptive routing protocol.
 - (b) What are bridges and gateways? Explain their functions briefly.
- 7. Attempt any *one* part of the following:** **10 x 1 = 10**
- (a) What are the characteristics of JDBC? What are the various steps for using JDBC? Write a program to demonstrate these steps.
 - (b) Do the following :
 - (i) What is RMI? What is the difference between `Naming.bind` and `Naming.rebind` method? Write a short code to invoke a remote method using Java RMI.
 - (ii) Explain briefly the life cycle of a servlet. What are the basic steps for creating a servlet?



Printed Pages : 7

MCA – 243

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 1457

Roll No.

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M. C. A.

(SEM. II) EXAMINATION, 2006-07

INTERNET & JAVA PROGRAMMING

Time : 3 Hours]

[Total Marks : 100

Note : (1) All questions are **compulsory**.
(2) All questions carry **equal** marks.

1 Attempt any **four** parts of the following : **5x4=20**

- (a) Draw the OSI-ISO Reference Model architecture and list at least one function which each layer performs.
- (b) Ten Thousand airline reservation stations are competing for the use of a single slotted ALOHA channel. The average station makes 18 requests/hour. A slot is 125 μ sec. What is the approximate total channel load?
- (c) Explain IEEE standard 802.3 and Ethernet in terms of performance.

V-1457]

1

[Contd...

- (d) Why are fiber optic media better than copper media? Explain briefly FDDI LAN.
- (e) In a token ring the sender removes the frame. What modifications to the system would be needed to have the receiver remove the frame instead, and what would the consequence be?
- (f) What are the different methods of framing? Explain in brief.

2 Attempt any **four** parts of the following : **5×4=20**

- (a) Give two examples each where connection – oriented service is appropriate and where connectionless service is best suited.
- (b) What is the difference between adaptive and non adaptive routing? Explain any one adaptive and one nonadaptive routing protocol.
- (c) What are bridges and gateways. Explain their functions briefly.
- (d) Why do you think CCITT provided flow control in X.25 in both LAPB and PLP instead of just in one layer?

- (e) Imagine that a two-way handshake rather than a three-way handshake was used to set up connections. In other words, the third message was not required. Are deadlocks now possible? Give an example or show that none exists.
- (f) Describe the functions of various layers of TCP/IP protocol.

3 Attempt any **four** of the following : **5×4=20**

- (a) Why is Java called machine independent language? Explain the functionality of JVM.
- (b) What is the difference between process based and thread-based Multitasking? Give the two ways by which a thread can be created using Java. Write a short program to demonstrate the creation of a new thread by extending the thread class.
- (c) What is the main difference between an application and applet? What are the advantages of Java swings over Java applets?
- (d) Do any **two** of the following : **$2 \frac{1}{2} \times 2 = 5$**
- (i) What are wrapper classes? Explain their use.
- (ii) What are the different types of Literals?

- (iii) Differentiate between a class variable and an instance variable. How can a class variable be accessed?
- (e) In Java only a single class can be extended. If there is a need to extend more than one class, how can this be achieved?
- (f) Write short notes on (any **two**) : **$2 \frac{1}{2} \times 2 = 5$**
- (i) Constructors and finalizers
- (ii) Method overloading and Method overriding
- (iii) Super keyword and Final modifier.

- 4** Attempt any **two** of the following : **$10 \times 2 = 20$**
- (a) Do any **two** of the following : **$5 \times 2 = 10$**
- (i) What is a string buffer? How does it differ from a string? Give the three ways of creating a string object.
- (ii) By means of a diagram show the various streams found in the java. io package? Write a program to demonstrate how to use a stream Tokenizer to count the number of words in a file.

- (iii) What is the main difference between Readers/Writers and Input/Output streams? Give a few subclasses of Reader and Writer Class?
- (b) Write a program in Java to demonstrate communication using TCP/IP i.e. using sockets:- Write a separate code for a server and client program. The program should display the contents of the file specified in a server on to the client.
- (c) Write an Applet (use swings) to display the following outputs.
- (i)

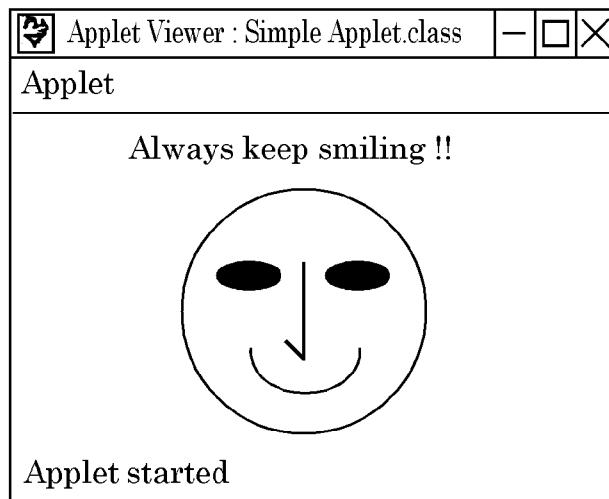


Fig. 1

(ii)

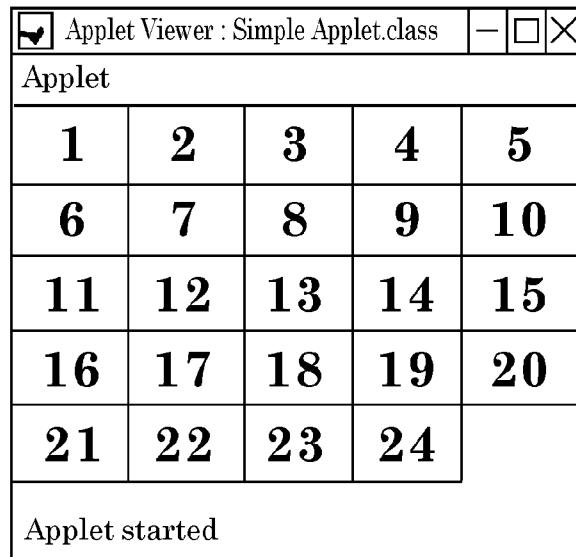


Fig. 2

5 Attempt any **two** of the following : **10×2=20**

- (a) What are the characteristics of JDBC? What are the various steps for using JDBC? Write a program to demonstrate these steps.
- (b) Do the following : **5×2=10**
- What is RMI? What is the difference between Naming.bind and Naming.rebind method? Write a short code to invoke a remote method using Java RMI.
 - Explain briefly the life cycle of a servlet. What are the basic steps for creating a servlet?

(c) Do the following : **5×2=10**

- (i) What is Java Beans? Give its advantages.
 - (ii) What does a Dynamic Billboard Applet do? What are the three main classes that the applet contain?
-

MCA
(SEM III) THEORY EXAMINATION 2023-24
WEB TECHNOLOGY

TIME: 3HRS

M.MARKS: 100

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief.

$2 \times 10 = 20$

Q.no.	Question	Marks	CO
a.	What do you meant by internet and its applications?	2	1
b.	Differentiate between HTML and HTML 5.	2	1
c.	Define JavaScript and its application.	2	2
d.	What do you meant by MARQUEE	2	2
e.	Define API and CGI	2	3
f.	What do you meant by Cookies?	2	3
g.	Define AOP.	2	4
h.	What are the various attributes of Tables?	2	4
i.	Why Spring Boot is preferred over any other framework?	2	5
j.	What makes Spring Boot superior to JAX-RS?	2	5

SECTION B

2. Attempt any three of the following:

$10 \times 3 = 30$

a.	Explain the various protocol that are used on internet.	10	1
b.	Design a HTML form for Library Management System.	10	2
c.	Explain the life cycle of servlet.	10	3
d.	What do you meant by Java bean? Is bean life cycle controlled by Spring.	10	4
e.	How to save image in database using Spring Boot?	10	5

SECTION C

3. Attempt any one part of the following:

$10 \times 1 = 10$

a.	Short note on— i) Form ii) List	10	1
b.	Write code in HTML for changing the background color.	10	1

4. Attempt any one part of the following:

$10 \times 1 = 10$

a.	Differentiate between DOM and COM.	10	2
b.	What do you meant by Switch / Case? Explain the various control statement in JavaScript?	10	2

5. Attempt any one part of the following:

$10 \times 1 = 10$

a.	Explain Client –Server architecture with suitable diagram.	10	3
b.	Differentiate between Handling HTTP getRequests and Handling HTTP post Requests.	10	3

6. Attempt any one part of the following:

$10 \times 1 = 10$

a.	Discuss Spring Framework architecture with suitable example.	10	4
b.	Explain the various types of scopes in spring?	10	4

7. Attempt any one part of the following:

$10 \times 1 = 10$

a.	Explain Dependency Injection in Spring Boot.	10	5
b.	Write a code in JavaScript for creating Alert and Confirm Box.	10	5

1 | Page

QP24DP2_290 | 22-03-2024 13:24:56 | 117.55.242.132

Printed Pages:02

Sub Code: KCA-021

Paper Id: []

Roll No. []

MCA
(SEM III) THEORY EXAMINATION 2022-23
WEB TECHNOLOGY

Time: 3 Hours

Total Marks: 100

Note: Attempt all Sections. If you require any missing data, then choose suitably.

SECTION A

1. Attempt all questions in brief.

$2 \times 10 = 20$

- a) Discuss Ordered list with an example.
- b) Write HTML code for inserting image on a web page.
- c) Explain the scope of let and Var variable in JavaScript.
- d) Differentiate between Client-Side scripting and Server-Side Scripting.
- e) Describe advantages of JSP over Servlet
- f) Which class has to be extending for creating Servlet?
- g) Explain the importance of IoC in spring.
- h) Differentiate between Bean Factory and ApplicationContext.
- i) Differentiate between spring & spring boot.
- j) Discuss, can we call a java class with annotations as POJO class or not?

SECTION B

2. Attempt any three of the following:

$10 \times 3 = 30$

- a) Explain the following HTML tags with example.
 - (i) <a>
 - (ii) <body>
 - (iii)
 - (iv) <table>
 - (v) <p>

- b) Illustrate Document object Model? How to create text box and button in DOM.
- c) Explain Servlet life cycle in detail.
- d) Illustrate Aspect Oriented Programming in spring framework.
- e) Classify all the annotations those are exclusively used for spring boot applications.

SECTION C

3. Attempt any one part of the following:

$10 \times 1 = 10$

- a) Discuss cascading. Write the various approaches of CSS. List out the properties of CSS with example.
- b) Discuss issues during web designing.

4. Attempt any one part of the following:

$10 \times 1 = 10$

- a) ‘JavaScript is referred to as object-based programming language’. Illustrate with an example.
- b) Construct a JavaScript program to print reverse digit of any number.

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CA
(SEM III) THEORY EXAMINATION 2021-22
WEB TECHNOLOGY

Time: 3 Hours

Total Marks: 100

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief.

$2 \times 10 = 20$

Q.no.	Question	Marks	CO
a.	What are the advantages of using JSP over servlet?	2	3
b.	Discuss advantage of spring framework.	2	4
c.	What are the effects of running Spring Boot Application?	2 as Java	ava
d.	What is AOP?	2	4
e.	Is COM same as DCOM? Comment on it.	2	2
f.	Differentiate between Web browser and Web server.	2	1
g.	Compare CGI and JavaScript.	2	2
h.	What is the difference between forward and sendRedirect tag in JSP?	2	3
i.	Explain main characteristics of Web Team?	2	1
j.	Difference between Spring and Spring Boot.	2	5

SECTION B

2. Attempt any three of the following:

Q.no.	Question	Marks	CO
a.	Can we call a Java class with annotations as a POJO class or not?	10	5
b.	Explain the procedure for creating a website for a corporate world.	10	1
c.	What is the functionality of JSP? What are the advantages of JSP over various server side programming technique?	10	3
d.	Explain the various Form object used by JavaScript. Write JavaScript to demonstrate how data validation can be performed.	10	2
e.	What are the different types of scopes in Spring? Explain in detail.	10	4

SECTION C

3. Attempt any one part of the following:

Q.no.	Question	Marks	CO
a.	What are the advantages and disadvantages of using Spring Boot?	10	5
b.	Define Cascading. Write the various approaches of CSS. List out the properties of CSS.	10	1

4. Attempt any one part of the following:

Q.no.	Question	Marks	CO
a.	What is Document Object Model? How to create text box and button in DOM.	10	2
b.	What is Servlet? Explain the life cycle of Servlet.	10	3

5. Attempt any one part of the following:

Q no.	Question	Marks	CO
a.	What is Bean in Spring? How bean life cycle can be controlled Spring?	10	4
b.	What do you mean by session tracking? How a session can be created? Explain with example.	10	3

6. Attempt any one part of the following:

Q no.	Question	Marks	CO
a.	Write short note on <ul style="list-style-type: none"> i. GET ii. POST iii. PUT iv. DELETE 	10	5
b.	List the properties of form elements and the methods of form elements.	10	1

7. Attempt any one part of the following:

Q no.	Question	Marks	CO
a.	What is the difference between JavaScript and Jscript? How will you do client side validation using JavaScript.	10	2
b.	What is Spring framework? Discuss feature of the Spring.	10	4

MCA
(SEM III) THEORY EXAMINATION 2021-22
WEB TECHNOLOGY

Time: 3 Hours

Total Marks: 70

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief. 2 x 7 = 14

a.	What are the various styles in CSS?
b.	Mention the elements located within <head> and </head> element.
c.	What are the objects in JavaScript?
d.	Define protocol suite.
e.	How can we create a database using PHP and MySQL?
f.	What language does MySQL use?
g.	Compare SGML and XML.

SECTION B

2. Attempt any three of the following: 7 x 3 = 21

a.	What is XML namespace? How is XML parsing done with SAX?
b.	Differentiate between HTML and DHTML. How do you ensure the security of a website at the server side?
c.	What are the communication issues of the web development strategies?
d.	How you can connect MySQL database with the help of PHP? Give one example. Write PHP script for following (any two): <ul style="list-style-type: none"> i. Fill combo box from MySQL database ii. Image upload script iii. Registration script.
e.	What are the features of JavaScript? Write a program in java script to display "Hello". Also show the usage of FOR statement by taking an example.

SECTION C

3. Attempt any one part of the following: 7 x 1 = 7

(a)	What do you understand by CSS? Explain different types of CSS with examples.
(b)	Write HTML code to develop a web page having two frames that divide the page into two equal rows and divides the first row into equal columns. Fill each the different background color.

4. Attempt any one part of the following: 7 x 1 = 7

(a)	Explain the benefits of PHP? Write a PHP code to demonstrate array handling (i.e. numeric, associative and multidimensional).
(b)	What is Document Type Definition (DTD) in XML? Illustrate with suitable examples.

5. Attempt any one part of the following: 7 x 1 = 7

(a)	What do you mean by cookies? How are they created? Can they be used for session management? Explain your answer and use suitable examples wherever required.
(b)	Explain advantages and disadvantages of MySQL. Write steps to establish connection from PHP to MySQL with suitable example.

6. Attempt any one part of the following: 7 x 1 = 7

(a)	What are objects in JavaScript? Write a Script to generate random numbers.
(b)	What are the various font properties available in CSS?

7. Attempt any one part of the following: 7 x 1 = 7

(a)	Explain the following acronyms <ul style="list-style-type: none"> i. HTTP ii. FTP iii. URL iv. SMTP
(b)	Explain the idea behind using the CAPTCHA kind of challenge-response authentication in websites.

MCA
(SEM-III) THEORY EXAMINATION 2019-20
WEB TECHNOLOGY

Time: 3 Hours

Total Marks: 70

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief. 2 x 7 = 14

a.	Write the concept of HTTP protocol.
b.	Write the html code to create the table.
c.	Write the features of HTML5.
d.	Write the difference between css2 and css3.
e.	Write the java script code to add two numbers.
f.	Write the uses of xml.
g.	Define cookies.

SECTION B

2. Attempt any three of the following: 7 x 3 = 21

a.	What do you mean by user centric design? Explain with an example.
b.	Explain the all type of CSS with an example.
c.	Write the java script code for pop up boxes.
d.	Write the PHP code for database connectivity?
e.	Write any five queries for MySQL database and explain with example.

SECTION C

3. Attempt any one part of the following: 7 x 1 = 7

(a)	How can you set the look and feel in your website? Explain with an example.
(b)	Write the process for planning and publishing of website.

4. Attempt any one part of the following: 7 x 1 = 7

(a)	Write the Syntax for XSLT, with an example.
(b)	Create an XML file which contain the information about student performance.

5. Attempt any one part of the following: 7 x 1 = 7

(a)	What is DTD? Explain the XML key components with an example.
(b)	What is Parser? Explain all types of Parser with example.

6. Attempt any one part of the following: 7 x 1 = 7

(a)	What do you mean by session management? Write the PHP code for session management.
(b)	Explain the oops concept in PHP.

7. Attempt any one part of the following: 7 x 1 = 7

(a)	Write the working of PHPmyadmin with example.
(b)	Write the basic commands for php and explain with example.

Printed pages: 02

Paper Id: 214302

Sub Code: RCA 302

Roll No:

MCA

(SEM III) THEORY EXAMINATION 2018-19
WEB TECHNOLOGY

Time: 3 Hours

Total Marks: 70

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.
2. Any special paper specific instruction.

SECTION A

1. Attempt all questions in brief. $2 \times 7 = 14$
- What is www? Explain feature of web 2.0.
 - What do you mean by frame in html? Give example.
 - What do you mean by CSS (Cascade style sheet) in html? Give suitable example.
 - What is PHP myadmin?
 - Explain dialog boxes in java script.
 - What are the differences between require () and include () .
 - What are global variables? How are these variable declared and what are the problems associated with using them?

SECTION B

2. Attempt any three of the following: $7 \times 3 = 21$
- Explain object in java script. What is event in java script? Write a function in java script to add two number using forms and display the result when user click add button.
 - Explain Array in PHP .Write a program in PHP to display record of three subject marks of three students using multidimensional associative array.
 - Creates an xml document to describe the student information. Description should include the name, fname address, DOB, Mobile No. , email. And validate it with XML Schema.
 - Explain the concept of effective web design. How to make website look and feel better. Explain the term bandwidth, cache, Display resolution in web designing.
 - What do you mean by CSS (Cascade style sheet) in html? Give suitable example. Explain font and Positioning Properties in CSS with example .Write the feature of CSS3.

SECTION C

3. Attempt any one part of the following: $7 \times 1 = 7$
- Write a java script code of block to print the prime number between given range.
 - What is deference between java script and java? Write a java script code for email validation.

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Printed pages: 2

Sub Code: RCA302

Paper id

Roll No.

MCA

(SEM III) THEORY EXAMINATION 2017-18
WEB TECHNOLOGY

Time: 3 Hours

Total Marks: 70

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.
2. Any special paper specific instruction.

SECTION A

1. Attempt all questions in brief. $2 \times 7 = 14$
- How you will define the term function in Java Script.
 - What do you mean by platform independent?
 - Define CSS.
 - How do you associate function with object using JavaScript?
 - What is advantage of CSS?
 - How do you call a package?
 - Explain static web pages.

SECTION B

2. Attempt any three of the following: $7 \times 3 = 21$
- What is JavaScript assisted style sheet DOM(JSS DOM)? What are various objects in HTML?
 - Create an XML file designed to contain information about student performance on a module. Each student has a name, arroll no., a student marks and exam marks.
 - Design a HTML form for a railway reservation system.
 - Explain COM and DCOM in detail.
 - Describe the PHP life cycle and how does PHP score over ASP & JSP.

SECTION C

3. Attempt any one part of the following: $7 \times 1 = 7$
- What is DTD? What is the difference between external and internal DTD? Use suitable example.
 - What is difference between Java and JavaScript? Write a JavaScript function for e-mail address validation, that is, to check if the content has the general syntax of an e-mail or not.
4. Attempt any one part of the following: $7 \times 1 = 7$
- What is PHP? Describe PHP session in detail.
 - Explain HTTP protocol also discuss about web browser and web server.
5. Attempt any one part of the following: $7 \times 1 = 7$
- Give the introduction of CSS and also explain manipulating texts and using fonts with suitable example.
 - Explain the overview and feature of HTML5.

4. Attempt any one part of the following:

$7 \times 1 = 7$

- What is MYSQL? How connect MYSQL database with PHP? Explain following operation with example: Create table, Insert data, and select data and delete data in MySQL using PHP.

- Give the object oriented feature in PHP. How create class and object in php?

5. Attempt any one part of the following:

$7 \times 1 = 7$

- What are the differences between Get and post methods in form submitting. Give the case where we can use get and we can use post methods?

- What is XML with syntax? Xml is well- formed Explain. Define XSL and XSLT with suitable example

6. Attempt any one part of the following:

$7 \times 1 = 7$

- Write shot note of following:

- DOM and SAX
- Meta and Div tag
- DHTML and XHTML

- Explain DTD with Example. What is difference between DTD and XML Schema?

7. Attempt any one part of the following:

$7 \times 1 = 7$

- What is PHP? Explain the cookies and session in PHP? How to create, retrieve and delete cookies in PHP with suitable example.

- What is the function in PHP? Design a login from in PHP that is used to provide the authentication for our web pages and the Script executes after submitting the user login button.

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Printed pages: 2

Sub Code: RCA302

Paper id

Roll No.

MCA

(SEM III) THEORY EXAMINATION 2017-18
WEB TECHNOLOGY

Time: 3 Hours

Total Marks: 70

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.
2. Any special paper specific instruction.

SECTION A

6. Attempt any one part of the following:

$7 \times 1 = 7$

- What do you mean by Object Oriented Programming with PHP explains its with suitable example?

- Define HTML table, how to declare the HTML forms?

7. Attempt any one part of the following:

$7 \times 1 = 7$

- Explain—i) Database bugs ii) PHP myadmin.

- Short note on—
 - Frames
 - Character entities.

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(Following Paper ID and Roll No. to be filled in your Answer Book)
PAPER ID : 1300 Roll No.

1	2	3	4	5	6	7	8	9	10
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MCA
 (SEM. III) ODD SEMESTER THEORY
 EXAMINATION 2013-14
WEB TECHNOLOGY-I

Time : 3 Hours *Total Marks : 100*

Note :- Attempt all Sections.

SECTION-A

1. Attempt all parts : **(2×10=20)**
- What is Java Collection Framework ?
 - What is the difference between a function and a method ?
 - Why multiple inheritance is not available in Java ?
 - What is the difference between the sleep() and wait() method ?
 - Write an applet to draw square inside a rectangle.
 - What do you mean by platform independent ?
 - How you will define the term function in JavaScript ?
 - What do you understand from the term image ?

- What is a Dense Array ?
- What is the difference between GET and POST method ?

SECTION-B

2. Attempt any three parts : **(3×10=30)**
- What is Java Virtual Machine ? Describe the architecture of Java Virtual Machine.
 - What is the use of InetAddress Class ? Differentiate between the URL and URLConnection with suitable example.
 - What is Database Driver ? What are the various types of database drivers ? Write a program to fetch student information from database.
 - What is JavaScript ? Differentiate between Java and JavaScript. How do you associate functions with objects using JavaScript ?
 - What is AJAX ? What are the benefits of AJAX ? Write the various steps to write an AJAX based application.

SECTION-C

3. Attempt all parts : **(5×10=50)**
- What do you mean by Exception ? What is checked and unchecked exception ? Explain Exception Chaining.

OR

Describe the different stages in the life cycle of an Applet.
 Distinguish between init() and start() methods.

- (b) What is a Thread ? What are the advantages of Multithreading ? Write a program in Java for creating two threads, one printing multiple of three and other printing multiple of five.

OR

What do you mean by Stream Classes ? Write a program in Java for writing into a file and reading from a file using byte streams.

- (c) How is Java's coordinate system organized ? Describe the three ways of drawing polygons.

OR

Briefly describe various types of text components provided by Java swing and their usage. Differentiate between the radio button and checkbox by taking suitable example.

- (d) What is Layout Manager ? What are the various types of Layout manager ? Explain Gridbag layout manager by taking suitable example.

OR

What is JavaScript assisted style sheets DOM (JSSS DOM) ?
 What are the various objects in HTML ?

- (e) What do you mean by Cascading Style Sheet (CSS) ? What are the advantages of CSS ? How many ways are there to specify style information in a document ?

OR

Create an XML file designed to contain information about student performance on a module. Each student has a name, a roll number, a subject marks and an exam marks.

MCA
(SEM IV) THEORY EXAMINATION 2018-19
WEB TECHNOLOGY-2

Time: 3 Hours**Total Marks: 100**

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

- 1. Attempt all questions in brief. 2 x 10 = 20**

- a. Explain how EJB can be made?
- b. Define EAR, WAR and JAR?
- c. Why HttpServlet class is declared abstract?
- d. Write short note on response Wrapper class.
- e. What are the four types of J2EE modules?
- f. What does web module contain?
- g. What is Elements of security?
- h. Write down the general security principles.
- i. How to destroy cookies in PHP?
- j. Write Short Note on: Chr() and strlen().

SECTION B

- 2. Attempt any three of the following: 10 x 3 = 30**

- a. Diagrammatically illustrate and discuss the Enterprise Java Bean (EJB) architecture.
- b. How do we handle in JavaScript? What is the difference between Java and JavaScript? Describe the strengths and weakness of JavaScript.
- c. What is the difference between?
 - i) COM and DCOM
 - ii) Dynamic Page and Active Page.
- d. List and discuss the key features of Enterprise Java Bean (EJB) technology.
- e. With a suitable example discuss the process of setting cooking, accessing cookies and deleting cookies using PHP.

MCA
(SEM. IV) THEORY EXAMINATION 2017-18
WEB TECHMOLOGY

Time: 3 Hours**Total Marks: 100**

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

- 1. Attempt all questions in brief. 2 x 10 = 20**

- (a) What do you mean by well-known ports?
- (b) What is meant by Name Resolution?
- (c) What Boolean operators are not supported by JavaScript?
- (d) How to create an Object in JavaScript?
- (e) What are the problems with using XML attributes?
- (f) What is the HTML DOM?
- (g) Explain common XMLHttpRequest Object Methods.
- (h) Explain AJAX and its advantages.
- (i) Write a PHP script to display today's date.
- (j) How Cookies are handled in PHP?

SECTION B

- 2. Attempt any three of the following: 10 x 3 = 30**

- (a) What are the advantages of JSP over Common Gateway Interface (CGI)? JSP provide better performance, prove this statement.
- (b) Explain data interchange in an XML document. Show example.
- (c) Differentiate between VBScript and JavaScript. Use examples.
- (d) Explain the idea behind using the CAPTCHA kind of challenge-response authentication in websites. What is its use?
- (e) How array is declared in PHP. Also explain various types of array with proper examples.

SECTION C

- 3. Attempt any one part of the following: 10 x 1 = 10**

- (a) What is functionality of HTTP? Describe the architecture of TCP/IP?
- (b) What is the role of web sites in today's life? Explain the various security issues that must be considered to construct a commercial web site.

- 3. Attempt any one part of the following:**

10 x 1 = 10

- (a) What is the functionality of JSP? What are the advantages of JSP over various server side programming techniques? How does JSP handle runtime exceptions?
- (b) Create an application to store the details of all visitors to a website in the database. The database may later be used to mine to get the user preferences for customization.

- 4. Attempt any one part of the following:**

10 x 1 = 10

- (a) Write a session tracker to track the number of users hitting a Webpage?
- (b) Explain Methods of Servlet Request class and their usage.

- 5. Attempt any one part of the following:**

10 x 1 = 10

- (a) How is a connection between an HTML document being displayed by a browser and a CGI server side program established?
- (b) How do you add a node at the beginning of a list of child nodes? Describe how to save a DOM tree in a file.

- 6. Attempt any one part of the following:**

10 x 1 = 10

- (a) What is functionality of HTTP? Describe the architecture of TCP/IP and UDP? Difference between TCP and UDP.
- (b) Discuss the method of calling Java Beans in JSP with example.

- 7. Attempt any one part of the following:**

10 x 1 = 10

- (a) Explain how to share information using scope object in Servlet?
- (b) Write short note on:
 - a. Include
 - b. Require
 - c. Strlen
 - d. Strcmp
 - e. Set session

- 4. Attempt any one part of the following:**

10 x 1 = 10

- (a) What do you mean by expression? Explain Boolean, Arithmetic and Relational expression.
- (b) Define DHTML. Explain any four components of DHTML.

- 5. Attempt any one part of the following:**

10 x 1 = 10

- (a) What do you mean by PHP. What are the benefits of PHP? Write PHP code to demonstrate array handling (I.e. numeric, associative).
- (b) What is the role of MVC 2 in JSP Explain with example?

- 6. Attempt any one part of the following:**

10 x 1 = 10

- (a) Explain web development life cycle and its methodologies?
- (b) How array is declared in PHP. Also explain various types of array with proper examples

- 7. Attempt any one part of the following:**

10 x 1 = 10

- (a) What is DTD? Why is it important to specify a DTD for an XML document?
- (b) Explain about CSS:
 - (a) Style Sheet Rules
 - (b) Styling a page
 - (c) Linking Style Sheets
 - (d) Explore Style properties
 - (e) Style Sheets and positioning

M.C.A.

THEORY EXAMINATION (SEM-IV) 2016-17**WEB TECHNOLOGY**

Time : 3 Hours

Max. Marks : 100

Note : Be precise in your answer. In case of numerical problem assume data wherever not provided.

SECTION – A

- 1. Attempt the following:** **10 x 2 = 20**

- (a) Give the important terminologies in HTTP.
- (b) Mention the responsibilities of web team member.
- (c) Write a javascript to print "Good Day" using IF-ELSE condition.
- (d) Give an example for implementing the HTML Links?
- (e) How to declare the HTML Forms?
- (f) Write the java script to print "Good Day" using IF-ELSE condition.
- (g) What is JSP? Write two main usages of it.
- (h) Differentiate GET and POST HTTP requests processing in a servlet.
- (i) Mention the working of PHP processors.
- (j) What do you understand by variable in PHP?

SECTION – B

- 2. Attempt any five of the following questions:** **5 x 10 = 50**

- (a) Explain the various internet protocols used for client server communication.
- (b) Discuss the various features of CSS with an example.
- (c) Describe data types functions and objects used in java script with an example.
- (d) Explain AJAX DOM based XML processing Event oriented parsing, XPATH and Template based transformations with suitable example.
- (e) Write the registration form for the creation of email account with all possible validations using java script.
- (f) What is DOM? Explain with necessary examples.
- (g) Explain String manipulations in PHP with examples.
- (h) Explain following functions with examples
 - (i) Current()
 - (ii) next()
 - (iii) prev()
 - (iv) end()
 - (v) reset()
 - (vi) key()
 - (vii) print_r()

SECTION – C

- Attempt any two of the following questions:** **2 x 15 = 30**

3. Develop an interactive web page for student registration using HTML form elements.
4. State and explain the information in a JSP document in detail.
5. How array is declared in PHP. Also explain various types of array with proper examples.

- (e) What is the purpose of CSS Box Model and mention its parts also.
- (f) Are Java and JavaScript the Same?
- (g) Explain concept of Cascading and inheritance Concepts in CSS.
- (h) How the Sessions can be maintained in Session tracking?
- (i) How to change an HTML Element with the help of DOM.
- (j) Discuss the role of Normal Flow Box Layout in CSS and also discuss about positioning in CSS.

Section-B

- Q2. Attempt any five questions from this section. (10x5=50)**

- (a) Write a JAVA script to compute the compound Interest for 10 years and display the result in HTML table format.
- (b) Explain how the connection is established between the Server and Client using Response object in ASP.

(2)
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(Following Paper ID and Roll No. to be filled in your Answer Books)

Paper ID : 214426

Roll No.

M.C.A.

Theory Examination (Semester-IV) 2015-16**WEB TECHNOLOGY**

Time : 3 Hours

Max. Marks : 100

Note : 7

Section-A

- Q1. Attempt all parts of this section. Answer in brief. (2x10=20)**

- (a) What is the difference between TCP and UDP?
- (b) Define the GET() and POST() method.
- (c) What do you understand by markup language? How to implement the HTML Links?
- (d) Compare SGML-based versus XML-based HTML.

(1)

P.T.O.

2405/114/139/3475

- (e) How "Mouseovers" can be created in Dynamic HTML. Give examples to change the Size and Color of the Text in a Web Page
- (d) What are the two methods in ASP request object? Explain with example.
- (e) What are cookies? Design jsp code to count no of times the page is visited?
- (f) Write a php script to accept two strings and check whether equal or not using sticky form.
- (g) Write a php script to create user-defined functions Xsubstr (string, start [, length]) and illustrate the same.
- (h) Create a simple Web Service that converts the temperature from Fahrenheit to Celsius, and vice versa.

Section-C

- Attempt any two questions from this section. (15x2=30)**

- Q3. Design a registration form for summer camp. Write a servlet code to insert it in DB.**

(3)
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- Q4. How HTTP session objects are used for session tracking? Explain with example. Consider shopping cart as a session attribute.
- Q5. Create a form to accept employee details like name, address and mobile-no. Once the employee information is accepted, then accept LIC information like policy no, name, premium. Display employee detail and LIC detail on the next form.

(4)

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Printed Pages : 3

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(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 214404Roll No. **M.C.A.**(SEM. IV) THEORY EXAMINATION, 2014-15
WEB TECHNOLOGY - 2

Time : 3 Hours]

[Total Marks : 100]

- Note:**(1) All questions are compulsory.
(2) All questions carry equal marks.

- 1 Attempt any four parts of the following: (5×4=20)
 (a) What are the key features of EJB technology?
 (b) What is MVC? Explain the role of MVC-2 in JSP.
 (c) What is J2EE container? Explain with J2EE architecture.
 (d) Write directory structure is needed to deploy a servlet.
 (e) How to use Servlets in your web application? Explain life cycle of servlet.
 (f) Differentiate between active & Passive security attacks.
- 2 Attempt any four parts of the following: (5×4=20)
 (a) Give introduction of Java Message Service (JMS). Explain JMS architecture.
 (b) List various types of attacks on internet. Explain it.

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- www.aktuonline.com
- (c) What do you mean by Virtual Private Networks (VPN)?
 (d) What are the advantages of using JSP over serviet?
 (e) What is Cookies? Write a PHP program to set cookies.
 (f) Explain the characteristics of PHP.
- 3 Attempt any two of the following: (10×2=20)
 (a) What is servlet? Write the life cycle of servlet with proper diagram. Also write a program in servlet to perform select operation in database.
 (b) Write down the steps for writing JMS clients (Sender and receiver).
 (c) Discuss various types of data types in MYSQL. Write a PHP code to insert and retrieve data in MYSQL database.
- 4 Attempt any two parts of the following: (10×2=20)
 (a) What is security threat and attacks ? How can we protect our self from these attacks?
 (b) What is J2EE? What are various technologies that come under J2EE? Discuss any two of the with example.
 (c) What do you understand by ASP? What are its advantages and disadvantages? How ASP is different from ASP.net?

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- 5 Attempt any two parts of the following: (10×2=20)
 (a) Differentiate various types of beans in EJB. Write a program to create a stateful session bean.
 (b) What do you mean by JSP? Explain the Architecture of JSP. How JSP provides performance ?
 (c) What is ServletConfig and ServletContext interfaces? Differentiate them. Also write suitable examples for accessing INIT and CONTEXT parameter.

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MCA

(SEM. IV) THEORY EXAM. 2014-15

WEB TECHNOLOGY

Note : Attempt the questions as indicated.

- Discuss the responsibilities of web team member.
- What are the different types of lists available in HTML?
- Give an example of each type.
- Write short notes on the following :
 - DNS
 - Traditional Project Vs. Web Project
 - Develop a simple JSP application that accepts the user's program to find largest among 5 numbers.

The frame which include Objective, Personal Information, etc., are the hyperlinks. Display the relevant information in the next frame as selecting the link. The colour scheme of hyperlinks should be as follows : default-green; active-red; visited-blue

Q3. Attempt any **two** parts of the following : 10x2=20

- Explain on how ASP involved in developing online application with an example.
- Explain the properties and concepts of CSS and its uses with an example.
- Discuss in detail about Java Script. Write a Java Script program to find largest among 5 numbers.

Q5. Attempt any **two** parts of the following : 10x2=20

- What is the functionality of JSP? What are the advantages of JSP over various server side programming techniques? How does JSP handle runtime exceptions?
- How event handling is done in Java Script? Write a program to create an applet, window completely black in colour to start with that becomes brighter and brighter as you go on clicking the mouse.

- Write short notes on the following :
 - VB script
 - PHP
 - Dynamic Page/Active Page
 - AJAX

- Explain the concept of URL and IP address. Also describe the various fields in IP datagram header.
- Attempt any two parts of the following : 10x2=20

- Give the introduction to PHP. What are the benefits of PHP? Write code to demonstrate array handling (i.e. numeric, associative and multidimensional).
- Compare VB Script and JAVA Script by giving their strength over other.

- How event handling is done in JAVA SCRIPT? Write a program to create an applet, window completely black in colour to start with that becomes brighter and brighter as you go on clicking the mouse.
- Write short notes on the following :
 - VB script
 - PHP
 - Dynamic Page/Active Page
 - AJAX

- What are the various characteristics of web project? What points should be considered in defining a project?
- Differentiate between Web browser and web server.
- How does a web server work?
- Write short notes on the Following :
 - DNS
 - Traditional Project Vs. Web Project

- What are the Role and Responsibilities of core team? What is team dynamics?
- [Contd...]

- $\text{Age} < 15$: Message - You are Kid!
- Age between 16 and 40 : You are Young!
- Age above 40 : You are Old!
- What is XML Schema? Compare XML Schema and XML DTD with neat example.

Q2. Attempt any **two** parts of the following : 10x2=20

- Give the introduction to PHP. What are the benefits of PHP? Write the code to demonstrate array handling (i.e. numeric, associative and multidimensional).
- What are Servlet Config and Servlet Context interfaces? Differentiate them. Also write suitable examples for accessing INIT and CONTEXT parameter.
- Create a web page using HTML, having frames as follows :

Your Name			
Objective	Punch line etc.	Display Information	Display relevant image here
Personal Information		tion hear of selected link	
Family Information			
Educational Information			
Experience			
Achievements			

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(Following Paper ID and Roll No. to be filled in your Answer Book)
PAPER ID : 214426

M.C.A. (Semester-IV)

SPL. THEORY EXAMINATION, 2014-15

WEB TECHNOLOGY

Time : 3 Hours] [Total Marks : 100]

Note : All questions are compulsory.

1. Attempt any four parts of the following : 5x4=20

- What are the various characteristics of web project? What points should be considered in defining a project?
- Differentiate between Web browser and web server.
- How does a web server work?
- Write short notes on the Following :
 - DNS
 - Traditional Project Vs. Web Project
- What are the Role and Responsibilities of core team? What is team dynamics?

- What are the various characteristics of web project? What points should be considered in defining a project?
- Differentiate between Web browser and web server.
- How does a web server work?
- Write short notes on the Following :
 - DNS
 - Traditional Project Vs. Web Project
- What are the Role and Responsibilities of core team? What is team dynamics?

- Differentiate between Web browser and web server.
- How does a web server work?
- Write short notes on the Following :
 - DNS
 - Traditional Project Vs. Web Project
- What are the Role and Responsibilities of core team? What is team dynamics?

- What are the various characteristics of web project? What points should be considered in defining a project?
- Differentiate between Web browser and web server.
- How does a web server work?
- Write short notes on the Following :
 - DNS
 - Traditional Project Vs. Web Project
- What are the Role and Responsibilities of core team? What is team dynamics?

- Differentiate between Web browser and web server.
- How does a web server work?
- Write short notes on the Following :
 - DNS
 - Traditional Project Vs. Web Project
- What are the Role and Responsibilities of core team? What is team dynamics?

- What are the two methods in Ajax to update part of web page? Describe them in detail.
- What is AJAX? Explain the role of AJAX in the web site development.
- What is COM and DCOM? Make the difference table for COM and DCOM. Also describe the importance of COM/DCOM in making commercial website.

(Following Paper ID and Roll No. to be filled in your Answer Book)
PAPER ID : 214404 Roll No.

MCA
(SEM. IV) THEORY EXAMINATION 2013-14
WEB TECHNOLOGY – II

Time : 3 Hours**Total Marks : 100****Note :- Attempt questions from each Section as indicated.****SECTION-A**

1. Attempt all parts : **(2×10=20)**
- What are the key features of EJB technology ?
 - Give introduction of Java Message Service (JMS).
 - What is J2EE container ? Discuss.
 - What are advantages of using JSP over servlet ?
 - What directory structure is needed to deploy a servlet ?
 - List five methods in Servlet interface.
 - Write down difference between constants and variables in PHP.
 - Write a program in PHP to demonstrate use of *foreach* loop.
 - List various types of attacks on Internet.
 - What do you mean by Virtual Private Networks (VPN) ?

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5. Attempt any one part : <http://www.aktuonline.com> **(10×1=10)**

- (i) Write down the steps to develop and deploy servlet.
 - (ii) Write a program in servlet to demonstrate form handling. Give the code of html, web.xml and its java files.
- (b) What is ServletConfig and ServletContext interfaces ? Differentiate them. Also write suitable examples for accessing INIT and CONTEXT parameter.

6. Attempt any one part : **(10×1=10)**

- Give the introduction to PHP. What are the benefits of PHP ? Write PHP code to demonstrate array handling (i.e. numeric, associative and multidimensional).
- (i) Write a PHP code to demonstrate file inclusion i.e. include () and require () .
- (ii) Write a PHP code to delete some data from MYSQL database

7. Attempt any one part : **(10×1=10)**

- (i) How will you define IT projects and their management in an organization. Describe with diagram.
- (ii) What are the basic services of Internet ? How it can be used as tool for business ?
- (b) Write short notes on :
 - Web Security
 - Web Browsing.

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2. Attempt any three parts : **(10×3=30)**
- Write down the steps for writing JMS clients (sender and receiver).
 - What is J2EE ? What are various technologies that come under J2EE ? Discuss any two of them with example.
 - What is servlet ? Write the life cycle of servlet with proper diagram. Also write a program in servlet to perform select operation in database.
 - Discuss various types of data types in MYSQL. Write a PHP code to insert and retrieve data in MYSQL database.
 - What is security threat and attacks. How we can protect our self from these attacks ?

SECTION-C**Note:-Attempt all questions. (10×5=50)**

3. Attempt any one part : **(10×1=10)**
- Differentiate various types of beans in EJB. Write a program to create a stateful session bean.
 - Write a program to demonstrate Java Message Service (JMS) in message driven beans.
4. Attempt any two parts : **(5×2=10)**
- What is J2EE ? Discuss the architecture and advantages of J2EE in detail.
 - What do you mean by session ? Write a JSP code for creating and accessing session.
 - Write a short note on Java Mail API.

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Time : 3 Hours Total Marks : 100

Note :-Attempt all questions.

1. Attempt any four parts : (5x4=20)

(a) What is World Wide Web ? Illustrate history and growth of web.

(b) What strategies are required to develop a web project ?

(c) Explain any three protocols governing the web application.

(d) What are components required to build web application ?

(e) What do you mean by software-quality assurance ?

(f) Discuss the responsibilities of web team member.

2. Attempt any four parts : (5x4=20)

(a) Explain the structure of an XML document.

(b) How does HTML differ from XML ? Explain with the help of an example.

(c) What is Hypertext Link ? What is the method to link to a specific place within the same document ?

(d) What are the different types of lists available in HTML ? Give an example of each type.

(e) What are advantages of a SAX parser over the DOM parser ?

(f) What is CSS ? Write a CSS rule that makes all the text 2 times larger than the base font of the system.

3. Attempt any two parts : (10x2=20)

(a) (i) Explain the various Form objects used by JavaScript with suitable example.

(ii) Write a JavaScript to demonstrate how data validation can be performed.

(b) Explain how events are handled in JavaScript. Create a JavaScript which has event handlers for the buttons "red", "blue", "green", "yellow" and "orange" which must produce message stating the chosen favorite color. The event handler must be implemented as a function, whose name must be assigned to the onclick attribute of the radio button elements. The chosen color must be sent to the event handler as a parameter.

(c) What is Java Bean ? How will you use the JSP language elements for accessing Bean in your JSP pages ?

4. Attempt any two parts : (10x2=20)

(a) (i) What is JSP ? Explain its role in the development of web sites.

(ii) What are various implicit objects used with JSP ? Explain.

(b) Using Servlet, JSP, JDBC and XML create a web application for a recruitment agency to provide assistance in searching the candidates from its database as per requirements of its various clients. Make necessary assumptions while developing this application.

(c) What do you mean by Cookies ? How the cookies are used to send and retrieve the information from the client ? Explain with a suitable example.

5. Write short notes on any two of the following: (10x2=20)

(a) AJAX (b) VBScript (c) PHP.

Section – A**1. Attempt all parts :****10 × 2 = 20**

- (a) What is meant by a protocol which governs the web ?
- (b) Define Web and give its applications.
- (c) What do you understand from the term images ?
- (d) State about CSS.
- (e) How will you define the term function in Java Script ?
- (f) Write about VB Script.
- (g) Distinguish between ASP and JSP.
- (h) List out the features of tomcat server.
- (i) Define PHP.
- (j) Narrate the purpose of exception handling.

Section – B**2. Attempt any three parts :****3 × 10 = 30**

- (a) Elucidate about the following :
 - (i) Web team
 - (ii) Web project

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- (b) Write a CSS rule that changes the colour of all elements containing attributes class = 'green move' to green and shift them down 25 pixels and right by 15 pixels.
- (c) Mention the various objects in JavaScript and explain them.
- (d) How does the data shared between JSP pages ?
- (e) Enlist the various types of operators with an example.

Section – C**Attempt all questions :****5 × 10 = 50**

3. Attempt any two parts :

(2 × 5 = 10)

- (a) Write short notes on ASP.NET.
- (b) How will you develop a Java bean in Java Server Pages ?
- (c) Give an overview about COM/DCOM.

4. Attempt any one part :

(1 × 10 = 10)

- (a) Explain the procedure for creating a website for a corporate world.
- (b) Narrate the various types of protocols and explain them.

5. Attempt any one part :

(1 × 10 = 10)

- (a) Create a XML file designed to contain information about student performance on a module. Each student has a name, a roll number, a subject mark and an exam mark.
- (b) Give a technical note on DTD.

6. Attempt any one part :**(1 × 10 = 10)**

- (a) Enumerate the request and response phase in AJAX.
- (b) In a retail shop they sell five different products whose retail prices are as follows :

Product 1 cost is ₹ 200

Product 2 cost is ₹ 150

Product 3 cost is ₹ 300

Product 4 cost is ₹ 320

Product 5 cost is ₹ 400

Write a JAVA Script that reads a series of pairs of numbers as follows :

1. Product number
2. Quantity sold for one day

The program should use a switch statement to help to determine the retail price for each product and calculate the output that displays the total retail value of all the products sold last week. Use a prompt dialog to obtain the product number from the user. Use a sentinel controlled loop to determine when the program should stop looping and display the final result.

7. Attempt any two parts :**(2 × 5 = 10)**

- (a) Discuss about the file upload in PHP.
- (b) Brief about switch and explain it with an example.
- (c) Define array, function and error in PHP.

5. Write short notes on any two of the following : (10×2=20)

- (a) Database programming using JDBC.
 (b) Accessing a database from a JSP page.
 (c) Describe Struts framework with suitable example.

M.C.A.
 (SEM. V) THEORY EXAMINATION 2011-12
WEB TECHNOLOGY

Time : 3 Hours

Total Marks : 100

- Note :- Attempt all questions.
 1. Attempt any four parts of the following : (4×5=20)
 (a) What are the main elements of a good website ? Explain.
 (b) Give the differences between developing a site for a corporate world and developing a site for individual.
 (c) Elaborate the term Protocol. Explain the following with example :
 (i) FTP
 (ii) WAP
 (d) Write down the differences between a traditional project and a Web based Project. Also mention some objectives to develop a Web based project.
 (e) Why it is so important to identify the target users for Website development ? How do you select contents for your Website ?
 (f) Explain WEB. Write down the difference between a Static Page and a Dynamic Page.

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M.C.A.

WEB TECHNOLOGY

Time : 3 Hours

Total Marks : 100

- Note :- Attempt all questions.
 1. Attempt any four parts of the following : (4×5=20)
 (a) Write down the differences between a traditional project and a Web based Project. Also mention some objectives to develop a Web based project.
 (b) Why it is so important to identify the target users for Website development ? How do you select contents for your Website ?
 (c) Explain WEB. Write down the difference between a Static Page and a Dynamic Page.

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[Following Paper ID and Roll No. to be filled in your Answer Book]
 PAPER ID : 1435 Roll No. [] [] [] [] [] []

M.C.A.
 (SEM. V) ODD SEMESTER THEORY
 EXAMINATION 2010-11
WEB TECHNOLOGY

Time : 3 Hours

Total Marks : 100

Note :—(1) Attempt all questions.

(2) All questions carry equal marks.

1. Attempt any four parts :— (5×4=20)
 (a) Define a web project. How does it differ with other software projects ?
 (b) Explain in brief about the following protocols :—
 (i) SMTP
 (ii) POP
 (iii) POP3
 (iv) IMAP
 (v) FTP.
 (c) Discuss cyber crime in the light of Indian IT Act 2000.
 (d) What skills are required to be a successful Web Project Manager ?
 (e) Discuss the hidden costs involved in a Web project.

2. Attempt any four parts of the following : (4×5=20)
 (a) Differentiate between the following :
 (i) HTML and DHTML.
 (ii) ROWSPAN and COLSPAN.
 (b) Write a short note on DOM.
 (c) How height and width of an inline image is set ? Write down steps for creating image links including an image in a link.
 (d) What are cascading style sheets and how are they coded ? Explain them with an example.
 (e) Justify the need for client side scripting languages. How do you perform client side validation using Java Script ?
 (f) Write a short note on String object, Data object and Array Object.
3. Attempt any two parts :— (4×5=20)
- (A) Write HTML code to create the following table :—
- | Roll No. | Maths | | Physics | | Chemistry | |
|----------|--------|-----------|---------|-----------|-----------|-----------|
| | Theory | Practical | Theory | Practical | Theory | Practical |
| 110001 | 25 | 25 | 25 | 25 | 25 | 25 |
- (B) (i) Name and explain any five elements of HTML form.
 (ii) What do you mean by event ? How event handling is done in Java Script ?

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- (f) Describe following terms :
 (i) SSL (ii) Secure DNS.
2. Attempt any four parts :— (5×4=20)
- (a) Discuss the various communication issues involved in Web development strategies.
 (b) What do you mean by test plan ? How do you prepare a successful test plan ?
 (c) Differentiate between load testing and stress testing strategies.
 (d) How technological development affects a speed web development project ?
 (e) What role a client plays in a web project ?
 (f) What do you mean by Quality Assurance in a web development project ?
3. Attempt any two parts :— (10×2=20)

(A) Write HTML code to create the following table :—

Roll No.	Maths		Physics		Chemistry	
	Theory	Practical	Theory	Practical	Theory	Practical
110001	25	25	25	25	25	25

- (B) (i) Name and explain any five elements of HTML form.
 (ii) What do you mean by event ? How event handling is done in Java Script ?

Note : (i) Attempt all questions.
(ii) All questions carry **equal** marks.

1. Attempt any **four** parts : $4 \times 5 = 20$

- (a) Why internet is also known as web ? Write down the important phases to web development.
- (b) What do you mean by a protocol ? Name three protocols that govern the web and explain about them.
- (c) Discuss some Indian cyber laws that are different from international cyber laws.
- (d) What is the role of web sites in today's life ?
- (e) Explain the various security issues that must be considered to construct a commercial web site.
- (f) Discuss the various cyber crimes that are possible using the social networking sites.

2. Attempt any **four** parts : $4 \times 5 = 20$

- (a) Why do we need a web team to design a web site ?
- (b) What are the various communication issues to be considered while designing a web site ?

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(i) Describe following terms :
(ii) SSL (iii) Secure DNS.

2. Attempt any **four** parts :— $(5 \times 4 = 20)$

- (a) Discuss the various communication issues involved in Web development strategies.
- (b) What do you mean by test plan ? How do you prepare a successful test plan ?
- (c) Differentiate between load testing and stress testing strategies.
- (d) How technological development affects a speed web development project ?
- (e) What role a client plays in a web project ?
- (f) What do you mean by Quality Assurance in a web development project ?

3. Attempt any **two** parts :— $(10 \times 2 = 20)$

(A) Write HTML code to create the following table :—

Roll No.	Maths		Physics		Chemistry	
	Theory	Practical	Theory	Practical	Theory	Practical
110001	25	25	25	25	25	25

- (B) (i) Name and explain any five elements of HTML form.
- (ii) What do you mean by event ? How event handling is done in Java Script ?

- (C) (i) How are objects used in Java Script ?
(ii) What is DHTML ? What are its advantages over HTML ?
4. Attempt any **two** parts :— $(10 \times 2 = 20)$
- (a) What do you mean by XML ? Discuss various advantages of XML over HTML. What is the structure of XML document ?
 - (b) What is parser in XML ? Explain and compare the different parsers used in XML.
 - (c) Explain the use of XML on client side with the help of example.
5. Write short notes on any **two** of the following :— $(10 \times 2 = 20)$
- (a) CGI
 - (b) PERL
 - (c) ASP.