

**INSTRUCTIONS :**

ENROLLMENT NO. :

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- 1) All questions are compulsory.
- 2) Illustrate your answers with neat sketches wherever necessary.
- 3) Use of Non Programmable Electronic Pocket Calculators is permissible.
- 4) Figure to the right indicate full marks.
- 5) Assume suitable additional data if necessary.
- 6) Mobile phones & other similar electronic gadgets are strictly prohibited inside examination hall.

Marks  
(20)**Q. 1 Attempt ANY TEN.**

- a) Enlist any four classes/interfaces listed in networking packages.
- b) What is Remote Method Invocation?
- c) What is proxy server?
- d) State the uses of datagram packet.
- e) Enlist any four JDBC interfaces.
- f) Enlist any four limitations using JDBC.
- g) Define customizers in Java Beans.
- h) State any two differences between applet & swing.
- i) Write the use of (i) getText ( ) (ii) setText ( ).
- j) What is session tracking?
- k) State any two advantages of servlet over CGI.
- l) Differentiate between JSP & servlet. (any two points)
- m) Enlist any four XML tags in JSP with description.

**Q. 2 Attempt ANY THREE.**

(12)

- a) Enlist instance methods to create an InetAddress. Explain any two.
- b) Explain factory methods in detail and write its any two uses.
- c) Explain database client/server methodology.
- d) What is serialization? Explain in brief.
- e) Explain Application builder tool in Java Beans.

**Q. 3 Attempt ANY THREE.**

(12)

- a) Demonstrate the use of TCP/IP socket in Java and explain.
- b) Explain JDBC-ODBC bridge with ODBC driver.
- c) Explain the term 'object persistence' and its uses.
- d) Explain Table in detail with the help of program.
- e) Explain the concept of servlet with the help of example program. Also write its advantages.

**Q. 4 Attempt ANY THREE.**

(12)

- a) Explain RMI architecture in detail.
- b) Explain the use of combobox with the help of program.
- c) Explain each step which is performed to run a servlet program.
- d) Explain JSP. Also demonstrate the use of JSP using java program.
- e) Enlist four core tags used in JSP with its description.

**Q. 5 Attempt ANY TWO.**

(12)

- a) Explain in detail basic & Two-Tier client server architecture with neat & clean diagram.
- b) Implement client server architecture using RMI.
- c) Explain Java Bean API.

**Q. 6 Attempt ANY TWO.**

(12)

- a) Explain tree in detail with the help of a program.
- b) Explain in detail servlet API.
- c) Explain JSP syntax & semantics in detail.

(An Autonomous Institute of Government of Maharashtra)

# GOVERNMENT POLYTECHNIC, SADAR, NAGPUR

(An Autonomous Institute of Government of Maharashtra)

## TERM EXAMINATION 14000

COURSE NAME : ADVANCED JAVA

COURSE CODE : IT1503

PROGRAMME : Diploma In Information Technology/Computer Engineering

TIME : 3 Hours

MAXIMUM MARKS : 80

**INSTRUCTIONS :**

ENROLLMENT NO. : 

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Marks  
(20)

**Q. 1 Attempt ANY TEN**

- a) Define protocol. List any two protocols for communication.
- b) Draw the client server communication model.
- c) What are the limitations of using JDBC?
- d) What is Java API ? What are its uses?
- e) What is the serializable class?
- f) What is the use of object registry?
- g) What is JAR file? What are its uses?
- h) What is the use of BeanInfos interface?
- i) What are the uses of JApplet and JButton?
- j) List different servlet classes available with java.
- k) What are the uses of servlet.
- l) List and explain the different tags used in JSP.
- m) What is JSP? What are its uses?

**Q. 2 Attempt ANY THREE**

(12)

- a) What is session? How session can be created? What are its advantages?
- b) Explain the TCP/IP addressing in detail.
- c) What is JDBC driver? What are the different types of JDBC drivers available with JAVA.
- d) Explain following in detail.  
(i) Stub (ii) Object Persistence.
- e) Write a Java program which is used to create a simple bean using BDK.

**Q. 3 Attempt ANY THREE**

(12)

- a) Elaborate the JSP development model in detail.
- b) Illustrate the concept of CORBA with diagram in detail.
- c) What are the advantages and disadvantages of Java Bean? Explain.
- d) What is the difference between AWT and Java swing? Explain with example.
- e) Demonstrate the use of RmiServer and RmiClient class with the help of java program.

**Q. 4 Attempt ANY THREE**

(12)

- a) Explain socket in detail. List different networking class and its uses.
- b) Draw and explain the architecture of RMI.
- c) What is win interface? Explain it in detail with example.
- d) Write a java program which creates a Generic servlet and read the servlet parameter.
- e) Explain the different JSP components in detail.

**Q. 5 Attempt ANY TWO**

- a) Explain following methods with their use:
  - i) Factory method
  - ii) Instance method.
- b) Illustrate the common object request broker architecture (CORBA) in detail.
- c) List the features of Radio Button. Also write a program which uses this control in Java.

(12)

**Q. 6 Attempt ANY TWO**

- a) What is socket? How to create server/client sockets?
  - b) Explain JDBC API and JDBC drivers in detail.
  - c) Write a program in Java by using Combo Box.
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# GOVERNMENT POLYTECHNIC, SADAR, NAGPUR

(An Autonomous Institute of Government of Maharashtra)

## TERM EXAMINATION 14 EVEN

COURSE NAME : ADVANCED JAVA

COURSE CODE : IT1503

PROGRAMME : Diploma In Information Technology/Computer Engineering

TIME : 3 Hours

MAXIMUM MARKS : 80

### INSTRUCTIONS :

ENROLLMENT NO. :

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Marks

### Q. 1 Attempt ANY TEN

(20)

- a) What is URL? What are its parts? Give an example.
- b) List out the networking classes and it's associated interfaces (any four).
- c) What is Proxy Server?
- d) Give a neat sketch of two-tier database design.
- e) Define object persistence.
- f) Give the steps for database connectivity using JDBC.
- g) List any two Deserialization exceptions.
- h) State any two limitations of using JDBC.
- i) What is Java Bean?
- j) State any two points of difference between Applet and Swing.
- k) What is Bean Developer Kit (BDK)?
- l) State the use of getText() and setText() methods.
- m) What is API?

### Q. 2 Attempt ANY THREE

(12)

- a) Define RMI. Explain RMI architecture with a neat sketch.
- b) Describe application builder tools of Java Beans in detail.
- c) List out the steps to create and run a servlet program and explain.
- d) Explain components of JSP page in detail.
- e) Explain servlet in terms of :
  - (i) Reading servlet parameters
  - (ii) Handling client requests through servlet.

### Q. 3 Attempt ANY THREE

(12)

- a) Explain serialization of RMI in detail.
- b) Explain Java Beans in terms of :
  - (i) Constrained properties
  - (ii) Customizers.
- c) Write a program to implement simple servlet program.
- d) Describe any four JSP tags with an example.
- e) Differentiate between JSP and servlet (any four points).

### Q. 4 Attempt ANY THREE

(12)

- a) State advantages of Java Beans. Also explain JAR files in detail.
- b) Explain Deserialization of RMI in detail.
- c) Demonstrate the Life cycle of a servlet in detail.
- d) Describe JSP syntax and semantics in detail.
- e) Explain the following :
  - i) The javax.servlet.http package
  - ii) session Tracking using JSP.

P.T.O

**INSTRUCTIONS :**

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- c) Explain the term 'object persistence' and its uses.
- d) Explain Table in detail with the help of program.
- e) Explain the concept of servlet with the help of example program. Also write its advantages.

**Q. 4 Attempt ANY THREE.**

(12)

- a) Explain RMI architecture in detail.
- b) Explain the use of combobox with the help of program.
- c) Explain each steps which are performed to run a servlet program.
- d) Explain JSP. Also demonstrate the use of JSP using java program.
- e) Enlist four core tags used in JSP with its description.

**Q. 5 Attempt ANY TWO.**

(12)

- a) Explain in detail basic & Two-Tier client server architecture with neat & clean diagram.
- b) Implement client server architecture using RMI.
- c) Explain Java Bean API.

**Q. 6 Attempt ANY TWO.**

(12)

- a) Explain tree in detail with the help of a program.
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# GOVERNMENT POLYTECHNIC, SADAR, NAGPUR

(An Autonomous Institute of Government of Maharashtra)

## TERM EXAMINATION 14000

COURSE NAME : ADVANCED JAVA

COURSE CODE : IT1503

PROGRAMME : Diploma In Information Technology/Computer Engineering

TIME : 3 Hours

MAXIMUM MARKS : 80

### INSTRUCTIONS :

ENROLLMENT NO. :

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Marks  
(20)

### Q. 1 Attempt ANY TEN

- a) Define protocol. List any two protocols for communication.
- b) Draw the client server communication model.
- c) What are the limitations of using JDBC?
- d) What is Java API ? What are its uses?
- e) What is the serializable class?
- f) What is the use of object registry?
- g) What is JAR file? What are its uses?
- h) What is the use of BeanInfos interface?
- i) What are the uses of JApplet and JButton?
- j) List different servlet classes available with java.
- k) What are the uses of servlet.
- l) List and explain the different tags used in JSP.
- m) What is JSP? What are its uses?

### Q. 2 Attempt ANY THREE

(12)

- a) What is session? How session can be created? What are its advantages?
- b) Explain the TCP/IP addressing in detail.
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- d) Explain following in detail.  
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- e) Write a Java program which is used to create a simple bean using BDK.

### Q. 3 Attempt ANY THREE

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- a) Elaborate the JSP development model in detail.
- b) Illustrate the concept of CORBA with diagram in detail.
- c) What are the advantages and disadvantages of Java Bean? Explain.
- d) What is the difference between AWT and Java swing? Explain with example.
- e) Demonstrate the use of RmiServer and RmiClient class with the help of java program.

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- b) Draw and explain the architecture of RMI.
- c) What is win interface? Explain it in detail with example.
- d) Write a java program which creates a Generic servlet and read the servlet parameter.
- e) Explain the different JSP components in detail.

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**(12)**

- a) Explain following methods with their use:
  - i) Factory method
  - ii) Instance method.
- b) Illustrate the common object request broker architecture (CORBA) in detail.
- c) List the features of Radio Button. Also write a program which uses this control in Java.

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**(12)**

- a) What is socket? How to create server/client sockets?
  - b) Explain JDBC API and JDBC drivers in detail.
  - c) Write a program in Java by using Combo Box.
-

# GOVERNMENT POLYTECHNIC, SADAR, NAGPUR

(An Autonomous Institute of Government of Maharashtra)

## TERM EXAMINATION 14 EVEN

COURSE NAME : ADVANCED JAVA

COURSE CODE : IT1503

PROGRAMME : Diploma In Information Technology/Computer Engineering

TIME : 3 Hours

MAXIMUM MARKS : 80

### INSTRUCTIONS :

ENROLLMENT NO. :

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Marks

### Q. 1 Attempt ANY TEN

(20)

- a) What is URL? What are its parts? Give an example.
- b) List out the networking classes and it's associated interfaces (any four).
- c) What is Proxy Server?
- d) Give a neat sketch of two-tier database design.
- e) Define object persistence.
- f) Give the steps for database connectivity using JDBC.
- g) List any two Deserialization exceptions.
- h) State any two limitations of using JDBC.
- i) What is Java Bean?
- j) State any two points of difference between Applet and Swing.
- k) What is Bean Developer Kit (BDK)?
- l) State the use of getText() and setText() methods.
- m) What is API?

### Q. 2 Attempt ANY THREE

(12)

- a) Define RMI. Explain RMI architecture with a neat sketch.
- b) Describe application builder tools of Java Beans in detail.
- c) List out the steps to create and run a servlet program and explain.
- d) Explain components of JSP page in detail.
- e) Explain servlet in terms of :
  - (i) Reading servlet parameters
  - (ii) Handling client requests through servlet.

### Q. 3 Attempt ANY THREE

(12)

- a) Explain serialization of RMI in detail.
- b) Explain Java Beans in terms of :
  - (i) Constrained properties (ii) Customizers.
- c) Write a program to implement simple servlet program.
- d) Describe any four JSP tags with an example.
- e) Differentiate between JSP and servlet (any four points).

### Q. 4 Attempt ANY THREE

(12)

- a) State advantages of Java Beans. Also explain JAR files in detail.
- b) Explain Deserialization of RMI in detail.
- c) Demonstrate the Life cycle of a servlet in detail.
- d) Describe JSP syntax and semantics in detail.
- e) Explain the following :
  - i) The javax.servlet.http package
  - ii) session Tracking using JSP.

P.T.O



**Q. 5      Attempt ANY TWO** **(12)**

- a) Write a java program which demonstrate the use of Datagram class to create server and client.
- b) What is Tree? Demonstrate the use of Tree with the help of java program.
- c) Write a java program which demonstrate the use of HttpServlet Request and HttpServlet Response classes.

**Q. 6      Attempt ANY TWO** **(12)**

- a) Write a java program which demonstrate the use of JDBC and send queries through JDBC bridge.
  - b) Write a java program which demonstrate the use of any four controls of swing package.
  - c) Write a java program which creates a user registration form using JSP.
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**GOVERNMENT POLYTECHNIC, SADAR, NAGPUR**  
(An Autonomous Institute of Government of Maharashtra)  
**TERM EXAMINATION ODD 2018**

**COURSE NAME : ADVANCED JAVA**

**COURSE CODE : IT1503**

**PROGRAMME : Diploma in Information Technology**

**TIME : 3 Hours**

**MAXIMUM MARKS : 80**

**INSTRUCTIONS :**

**ENROLLMENT NO. :**

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**Marks  
(20)**

**Q. 1 Attempt ANY TEN**

- a) What is Networking?
- b) What is BDK?
- c) Explain CORBA.
- d) Explain JDBC application verses applets.
- e) What is servlet?
- f) What is object persistence?
- g) What is Three-Tier database?
- h) What are Jar files?
- i) Explain generic servlet.
- j) Explain RMI architecture.
- k) What is JSP?
- l) Explain benefits of servlet.
- m) Explain cookie.

**Q. 2 Attempt ANY THREE**

- a) Explain with suitable examples how to create menus in swings.
- b) Write a short note on any two drivers of JDBC.
- c) List four differences between TCP and UDP.
- d) Write a swing program containing a button with the caption "Now" and a textfield, on click of the button current date and time should be displayed in the text field.
- e) Write a JDBC program that accepts a table name and displays total number of records present in it.

**Q. 3 Attempt ANY THREE**

- a) Compare JSP and servlet.
- b) What is Java Bean? Explain with example.
- c) Explain the steps to execute a RMI program.
- d) Write TCP server program that returns factorial of a given integer number to a TCP client.
- e) What is the significance of URL? How it is used?

**Q. 4 Attempt ANY THREE**

- a) Write a Java server page which displays value of m to the power of n ( $m^n$ ) where m and n are accepted from numbers .html.
- b) Write servlet which accepts ROLL NO, NAME, and YEAR sent from a HTML documents (student.html) and display them on screen. Also give the code for student .html document.
- c) Write a program using JSP tags to compute square of numbers from 1 to 20.
- d) Write a program to add the nodes in JTree control.
- e) List various types of JDBC drivers. Explain JDBC-ODBC bridge driver.

**Q. 5 Attempt ANY TWO**

- a) Draw and explain the life cycle of servlet.
- b) Explain the following term of JSP :  
i) Scriptlet ii) Declaration iii) Expression.
- c) List and explain Beans API.

**P.T.O.**

**Q. 6 Attempt ANY TWO**

- a) What do you mean by serialization exceptions? Explain with example.
  - b) Explain the usage of scrollbar control in swing.
  - c) Explain following terms :
    - i) Factory methods    ii) Instance method.
- 





# GOVERNMENT POLYTECHNIC, SADAR, NAGPUR

(An Autonomous Institute of Government of Maharashtra)

## TERM EXAMINATION NOVEN 2018

COURSE NAME : ADVANCE JAVA

COURSE CODE : IT501E

PROGRAMME : Diploma in Information Technology/Computer Engineering

TIME : 3 Hours

MAXIMUM MARKS : 70

### INSTRUCTIONS :

ENROLLMENT NO. :

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Marks

(10)

#### Q. 1 Attempt ANY FIVE

- a) Enlist the differences of TCP/IP and UDP (Datagram) protocol (Any two)
- b) State the need of Serialization?
- c) State use of java Bean API.
- d) Define cookies in servlet
- e) State the use of declarative tag in JSP. Also give syntax and example.
- f) Define URL format. State its format
- g) Enlist the object databases available.

#### Q. 2 Attempt ANY THREE

(12)

- a) Describe the limitation of using JDBC.
- b) Describe following with example.
  - i) Factory method
  - ii) Instance method
- c) Describe the HttpServlet class methods with its uses (any four)
- d) Design input form by using following swing components. JTextField, JLabel, JButton, JTextArea
- e) Describe the use of statement interface with any four methods defined in it

#### Q. 3 Attempt ANY THREE

(12)

- a) Describe the security considerations in JDBC
- b) Describe the advantages of Java Bean (Any four)
- c) Describe the uses of ComboBox Component in swing with JSP program.
- d) Describe limitations of awt.
- e) Write a java program to demonstrate the use of sessions in servlet.

#### Q. 4 Attempt ANY THREE

(12)

- a) Describe the Bound properties of java Bean.
- b) Describe the Scroll Pane component of swing with example program
- c) Write a program to create a TCP server which can read/receive text message from multiple TCP client
- d) Describe the proxy server and its uses (any four uses)
- e) Describe the role of ServletRequest and Servlet Response classes in java

#### Q. 5 Attempt ANY TWO

(12)

- a) Write a program to generate the form given in Figure 1.
- b) Write a java program to create Login page using JSP. If username and password entered by the user is correct then user will redirected to the welcome page.
- c) Describe the architecture of CORBA in detail with neat diagram.

#### Q. 6 Attempt ANY TWO

(12)

- a) Write a program which connects with Webdatabase "All-Books" and display the total number of books of author "Herbert Schildt" available in database
- b) Write a program to create a servlet which accepts two integers from the Web page and display the addition, subtraction, multiplication and division on the next web page.
- c) Write a java program which demonstrate connecting to a web database with driver manage in JSP

P.T.O.