MD-117

March-2019

B.C.A., Sem.-V

SEC-301 (2) Advanced Java

Time : 2:30 Hours]   **[Max. Marks : 70**

1.   (A)   Answer the following :

        (i)   Explain File class with its various methods.   **7**

        (ii)   Explain with program how to write and read an object to and from a file.   **7**

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OR

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        (i)   What is RandomAccessFile ? Explain the use of RandomAccessFile class with its important methods.

        (ii)   What is stream ? Explain DataOutputStream and DatalnputStream class in detail.

  (B)   Select the correct option : (Any **four**)   **4**

        (i)   A group of characters that has meaning is known _____.

            [Field/File/Record/Data]

        (ii)   The File class is provided by_____ package.

            [java.lang/java.io/java.awt/java.net]

        (iii) Most streams flow_____.

            [In/Out/Either in or out, but in one direction only/Both in and out]

        (iv) The method canWrite() of a File class returns _____ value.

            [Integer/Object/Void/Boolean]

        (v)   The method contained in the RandomAccessFile class but which doesn't in the InputStream class is _____.

            [read()/write()/seek()/close()]

        (vi) _____ is mechanism for manipulating objects as streams of bytes.

            [Serialization/Deserialization/Chaining/None of these]

2. (A) Answer the following :

    (i)   Explain JFrame class with its various methods.   **7**

    (ii)   Explain JTextBox component.   **7**

           OR

    (i)   Explain the use of JComboBox and JCheckBox components.

    (ii)   Explain setLocation(), requestFocus(), getContentPane() and setEditable() methods with example.

  (B) State as True/False : (Any **four**)   **4**

    (i)   AWTEVENT is the child of EventObject class.

    (ii)   When user close a JFrame by clicking the Close button, the default behaviour is for the frame to become hidden and application keeps running.

    (iii) To add components left to right, flow layout is used.

    (iv) setSelectedIndex(int i) method of a JComboBox component sets the value of element at index i.

    (v)   init () method of an JApplet life cycle executes again every time the applet becomes active.

    (vi) JPanel() constructor creates a new panel with flow layout.

3. (A) Answer the following :

    (i)   What is layout manager ? Explain any two layouts with example.   **7**

    (ii)   Write importance of InetAdress class with its various methods.   **7**

           OR

    (i)   What are event handlers ? Explain any three events with their listeners and handlers.

    (ii)   Explain TCP/IP Socket programming, along with methods and constructors of ServerSocket class.

  (B) State True/False : (Any **three**)   **3**

    (i)   The java.lan package is used for network programming.

    (ii)   The borderLayout can be used to add more than five components.

    (iii) The datagram socket uses UDP for sending and receiving data.

    (iv) An adapter class implements all the methods in an interface, providing an empty body for each method.

    (v)   The statement setLayout(new CardLayout()); creates a card layout without horizontal or vertical gap.

4. (A) Answer the following :

(i) Explain steps for JDBC connection. 7

(ii) Explain how to insert and update data in database with example. 7

OR

(i) Explain different types of drivers for database connection in Java.

(ii) Explain following :

(a) getResultset() and forName() methods.

(b) Prepared and Callable statements.

(B) Attempt any **three** : 3

(i) JDBC stands for _____ .

(ii) For creating the database connection getConnection(String URL) method is used. [True/False]

(iii) _____ method does all the changes into the database since the last commit or rollback. [Commit()/Rollback()/Execute()/None of these.]

(iv) For getting a database result, the ResultSet object is used. [True/False]

(v) _____ many types of drivers are available for Java Database Connectivity. [1/2/3/4]

_____

MD-117

March-2019

B.C.A., Sem.-V

SEC-301 (1) Software Project Management

Time : 2:30 Hours]   **[Max. Marks : 70**

1.   (A)   (1)   What are the activities covered by SPM ?   **7**

        (2)   Write note on Cash flow forecasting.   **7**

                                        OR

        (1)   Define Stakeholder. Describe briefly categories of Stakeholder.

        (2)   Write note on Product flow diagram.

     (B)   Define the following : (Any **four**)   **4**

        (i)   SV

        (ii)   Maintainability

        (iii) Virtual team

        (iv)   ISO

        (v)   Reliability

        (vi)   CMM

2.   (A)   (1)   Explain eight core Atern/ DSDM principles.   **7**

        (2)   Explain Albrecht function point analysis.   **7**

                                        OR

        (1)   The project has 9 inputs and 15 outputs. The new project B has 12 inputs
             and 14 outputs. Find out the Euclidean distance.

        (2)   Explain water fall model.

(B) Attempt any **four** :   4

    (1)   Water fall model can be expanded into _____ model.

        (A) V-process   (B) Incremental

        (C) Spiral   (D) None of the above

    (2)   Define Bespoke system.

    (3)   Spiral model originally proposed by _____.

        (A) Boehm   (B) Winston

        (C) Royce   (D) Dexter

    (4)   KLOC = _____.

    (5)   Which of the following costs is not part of the total effort cost ?

        (A) Costs of networking and communications

        (B) Costs of providing heating and lighting office space

        (C) Costs of lunch time food

        (D) Costs of support staff

3.   (A) (1)   Draw Activity on Node network diagram.   7

(i)	**Activity**	**Duration[Hrs]**	**Precedents**
(ii)	A	10	–
(iii)	B	15	–
(iv)	C	3	A
(v)	D	5	A
(vi)	E	2	–
(vii)	F	8	C, D
(viii)	G	7	B, E
(ix)	H	5	F
(x)	I	5	G
(xi)	J	3	G
(xii)	K	7	G
(xiii)	L	6	H
(xiv)	M	10	I, J, K

(2) Explain labelling conventions of Activity on Arrow network. 7

<div align="center">OR</div>

(1) Explain RISK planning. 7

(2) Explain brainstorming in risk identification. 4

(3) Explain Sociotechnical model of risk. 3

(B) Attempt any **three** : 3

(1) CPM is : _____

    (A) Critical Project Management

    (B) Critical Path Management

    (C) Critical Path Method

    (D) Crash Project Method

(2) PERT stands for _____.

(3) Define dangles.

(4) Define RISK.

4. (A) (1) Explain ISO 12207 approach for the Acquisition and supply of software. 7

    (2) Define Software Quality in detail. 3

    (3) Explain fixed price per unit delivered contract. 4

<div align="center">OR</div>

(1) Explain major external software quality characteristics identified I n ISO 9126.

(2) List out general principles of Fagan method.

(3) Write briefly on Software quality circles.

(B) Attempt any **three** : 3

(1) CV = _____ - _____

    (a) EV, AC   (b) AC, EV

    (c) PV, EV   (d) EV, PV

(2) Why is software difficult to build ?

    (a) Controlled changes

    (b) Lack of reusability

    (c) Lack of monitoring

    (d) All of the mentioned

(3) Define RFP.

(4) List different types of contact.

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