

**MODEL TEST –XML, JDBC, UML**  
**Total Marks-100**

1. The attribute used to define a new namespace is
  - A. XMLNS
  - B. XmlNameSpace
  - C. xmlns**
  - D. XMLNs
  
2. The syntax for parameter entity is
  - A. <! ENTITY % NAME DEFINITION>**
  - B. < ENTITY % NAME DEFINITION>
  - C. <! ENTITY \$ NAME DEFINITION>
  - D. < ENTITY % NAME DEFINITION>
  
3. Attribute standalone="no" should be included in XML declaration if a document:
  - A. is linked to an external XSL stylesheet
  - B. has external general references**
  - C. has processing instructions
  - D. has an external DTD
  
4. Which statement is true?
  - A. All the statements are true
  - B. All XML elements must have a closing tag**
  - C. All XML elements must be lower case
  - D. All XML documents must have a DTD
  
5. Comment in XML document is given by
  - A. <?-- -->
  - B. <!-- --!>
  - C. <!-- -->**
  - D. </-- -->
  
6. Valid XML document means (most appropriate)
  - A. the document has root element**
  - B. the document contains atleast one or more root element
  - C. the XML document has DTD associated with it & it complies with that DTD**
  - D. Each element must nest inside any enclosing element property
  
7. XML uses the features of
  - A. HTML
  - B. XHTML
  - C. VML
  - D. SGML**
  
8. Which of the following is used to specify the attribute list of an element
  - A. ATTLIST
  - B. ?ATTLIST
  - C. !ATTLIST**
  - D. #ATTLIST
  
9. What is an XML namespace?
  - A. A set of names applied to specific spaces within an XML document, such as the head and body
  - B. A set of names representing a specific XML vocabulary**

- C A set of names for XML documents pertaining to a particular vocabulary  
D. None of the above.

10. In XML the attribute value must always be quoted with .....

- A) double quotes  
B) single quotes  
 C both a and b  
D) name of attributes

11. Which of the following means that the ResultSet can only be read?

- A - ResultSet.CONCUR\_READ\_ONLY      B - ResultSet.CONCUR\_UPDATABLE  
C - ResultSet.READ\_ONLY      D - ResultSet.UPDATABLE

12. The technical term for a row in a table is called-

- a) field       b) tuple      c) row      d) data

13. The data describes the contents of a database is known as-

- a) data dictionary      b) record      c) tuple      d) data table

14. Which of the followings is not a DML statement?

- a) select      b) insert      c) update       d) create

15. Which of the followings is a logical set of columns and rows of data returned executing statement?

- a) Driver      b) Connection       c) Resultset      d) Metadata

16. Which of the following statements loads the JDBC-ODBC driver?

- a. Class.forName("sun.jdbc.odbc.JdbcOdbcDriver")  
b. Class.loadClass("sun.jdbc.odbc.JdbcOdbcDriver")  
c. Class.loadClass(sun.jdbc.odbc.JdbcOdbcDriver)  
d. Class.forName(sun.jdbc.odbc.JdbcOdbcDriver)

17. The ..... package contains classes that help in connecting to a database, sending SQL statements to the database, and processing the query results.

- A) connection.sql      B) db.sql      C) pkg.sql       D) java.sql

18. The ..... method executes a simple query and returns a single Result Set object.

- A) executeUpdate()       B) executeQuery()      C) execute()      D) noexecute()

19. The ..... method executes an SQL statement that may return multiple results.

- A) executeUpdate()       B) executeQuery()       C) execute()      D) noexecute()

20. The ..... object allows you to execute parametrized queries.

- A) ResultSet      B) Parametrized       C) PreparedStatement      D) Condition

21. The ..... object provides you with methods to access data from the table.

- A) ResultSet      B) Parametrized      C) TableStatement      D) Condition

22. The parameters of the PreparedStatement object are ..... when the user clicks on the Query button.

- A) initialized       B) started      C) paused      D) stopped

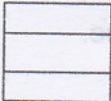
**23.** The ..... method sets the query parameters of the PreparedStatement Object.  
A) putString()      B) insertString()      C) setString()      D) setToString()

**24.** Connection object can be initialized using the ..... method of the Driver Manager class.  
A) putConnection()      B) setConnection()      C) Connection()      D) getConnection()

**25.** Invoking Class.forName method may throw \_\_\_\_\_.

- A) ClassNotFoundException      B) RuntimeException  
C) SQLException      D) IOException

**26.** One of these is not a permitted symbol for an entity class. Which one?



a.



b.



c.

**27.** Which of the following is not a characteristic of a subclass?

- A. A subclass includes at least one detail that is not shared by its superclass.  
B. A subclass can only have superclasses, it cannot have subclasses of its own.  
C. A subclass inherits all the characteristics of its superclass.

**28.** Which of the following is true about system requirements?

- A. They are mainly identified during systems engineering.  
B. They change from one phase to another.  
C. They can be used to develop user acceptance tests.

**29.** What is the significance of the multiplicity of an association?

- A. It constrains the number of times that an object of one participating class can be linked during its lifetime.  
B. It denotes the number of different classes that can be linked together.  
C. It constrains the number of objects of one participating class that can be linked to an object of the other class.

**30.** One of the following cannot directly affect the state of an object. Which one?

- A. A change in the value of one of its attributes.  
B. The creation or destruction of another object of the same class.  
C. The creation or destruction of a link with another object.

**31.** Which of the following statements about sequence diagrams is true?

- A) A sequence diagram containing an interaction fragment may be referenced by one or more sequence diagrams.  
B) A sequence diagram containing an interaction fragment may never be referenced by another sequence diagram.  
C) A sequence diagram containing an interaction fragment may be referenced by only one sequence diagram.

32. Which of the following do analysts and designers use diagrams for?

- A. To communicate ideas to users and other analysts and designers
- B. Neither A nor B
- C. To ensure that users don't understand the specification for a system

33. Which of the following is a useful set of questions to ask when modelling an object, according to Rebecca Wirfs-Brock?

- A. Who am I, what can I do and what do I know?
- B. What do I have, what can I get and what can I do?
- C. Where am I, what am I and who do I know?

34. Which of the following best describes when to use the State pattern?

- A. The pattern may be used when an object appears to change class at run-time.
- B. The pattern may be used when a class has many states.
- C. The pattern may be used when a class has many operations.

35. What is meant by 'transitive operation' in the context of generalization and inheritance?

- A. A subclass inherits characteristics from all its superclasses at all levels.
- B. An operation in a superclass may be overwritten by a different operation in a subclass.
- C. An operation in a superclass may not be overwritten by a different operation in a subclass.

36. Which of the following examples conforms to the standard for class names used in the book and generally in Java programming?

- A. SalesOrderProxy
- B. Sales\_Order\_Proxy.
- C. salesOrderProxy.

37. Which of the following is not a reason for modeling objects?

- A. To understand an aspect of the application domain.
- B. To separate data from process.
- C. To produce a design for part of a software system.

38. How do abstract and concrete classes differ from each other?

- A. Abstract classes are superclasses, whereas concrete classes are subclasses.
- B. Abstract classes have no instances, whereas concrete classes have instances.
- C. Abstract classes represent intangible concepts in the application domain, whereas concrete classes represent physical things.

39. Which fact-finding technique is most suitable to be used in the initial stages of fact-finding and particularly where the analyst is not familiar with the organization that is being studied?

- A. Questionnaires.
- B. Background reading.
- C. Interviewing.

40. Which of the following is not an element of UML diagram notation?

- A. String
- B. Vertex
- C. Icon



test			
surname	name	code	points
MD.	BABU		

**test: R-25 UML mock test 1**

test time [min]:	25	R-25 UML mock test 1
start time:		
end time:		
basic points:	1.000	
points for wrong answer:	0.000	
points for no answer:	0.000	
max score:	40.000	
points to pass the exam:	28.000	

33

1 S	1	Which of the following is true?
	1	An icon contains at least one vertex and one string
	2	Icons can contain two-dimensional symbols
	3	Two-dimensional symbols can contain icons
2 S	1	Which of the following best describes object state?
	1	The semantics of the object.
	2	Which class the object belongs to.
	3	The particular condition that an object is in at a given moment, determining its possible behaviours.
3 S	1	Which of the following is a consequence of subdividing the development process?
	1	It allows teams of developers with specialist skills to be allocated to a particular phase.
	2	It helps identify smaller tasks that can be completely finished.
	3	It makes it more difficult to manage a project.
4 S	1	Iteration is problematic during the traditional life cycle for which of the following reasons?
	1	Architectural decisions are difficult to change.
	2	Ad hoc coding solutions may be used to address changes in requirements
	3	Requirements will change during the project.
5 S	1	What is the significance of message-passing in an OO system?
	1	Messages represent input from users that tells the software system what to do.
	2	Messages represent output to users that show the results of processing.
	3	Objects exchange messages in order to communicate with each other.
6 S	1	Which of the following is a true statement regarding a systems development project?
	1	A systems development project is only concerned with developing a software system.
	2	A systems development project may not involve software development.
	3	A systems development project is only concerned with developing systems for controlling devices or machines.
7 S	1	Which of the following statements is true about a prototype system?
	1	Rapid development tools are only used to build prototype systems.
	2	A prototype system is incomplete or lacks the resilient construction of the final production system.
	3	A prototype system is always discarded before the final production system is built.
8 S	1	What is a message protocol or signature?
	1	A message protocol is a valid sequence of operations in a series of different objects.
	2	A message protocol is the interface to an operation.
	3	A message protocol is a valid sequence of keystrokes by a user.
9 S	1	Which of the following is not a purpose for using activity diagrams?
	1	To model a task
	2	To describe the logic of an operation
	3	To show the sub-systems that make up a system
10 S	1	Which of the following is a disadvantage of the traditional life cycle?





- 1 Requirements change during development after the main system requirements have been agreed and are difficult to accommodate.  
2 It separates requirements analysis and design.  
3 It does not allow the use of object-oriented technology.
- 11 S 1 Which of the following is true about the criteria for acceptance tests?  
1 They are best identified at the end of the design phase.  
2 They are best identified at the beginning of the testing phase.  
3 They are best identified at the end of requirements analysis.
- 12 S 1 Which of the following best describes abstraction?  
1 A representation of something tangible.  
2 A representation that contains only relevant details.  
3 A representation that can be stored in a software system.
- 13 S 1 Why are systems analysis and design diagram standards important?  
1 They prevent systems analysts' clothes from shrinking in the wash  
2 They promote communication between team members  
3 They provide work for international standards committees
- 14 S 1 What do all objects have?  
1 State, behaviour and identity.  
2 Behaviour, data and identity.  
3 Instances, structure and similarity.
- 15 S 1 Which of the following are the rules that modelling techniques should enforce?  
1 Simplicity, internal consistency, completeness and hierarchical symbols  
2 Simplicity of representation, external consistency, completeness and network representation  
3 Simplicity of representation, internal consistency, completeness and hierarchical representation
- 16 S 1 Which of the following is not an advantage of modular software design?  
1 Modular systems can be implemented in small, manageable chunks.  
2 Modular systems are typically more reliable in use.  
3 Modular systems are independent of the operating system that they run on.
- 17 S 1 How does generalization differ from inheritance?  
1 Inheritance is a mechanism by which some OO languages implement generalization.  
2 With generalization each class has only one superclass, whereas with inheritance each class has two or more superclasses.  
3 It doesn't - they are the same thing.
- 18 S 1 Which of the following best describes a type?  
1 A superclass in a generalization hierarchy.  
2 A description of a set of objects with similar behaviours.  
3 A class with a characteristic that distinguishes it from all other classes.
- 19 S 1 Which of the following is not a reason for using a model?  
1 We can use a model in simulations to test our ideas  
2 We can use a model instead of building the real thing  
3 A model is quicker and easier to build than the real thing
- 20 S 1 Which of the following is a valid reason why it is difficult to design event-driven software in a procedural manner?  
1 Procedural programs are only suitable for record-based data structures.  
2 It is difficult to anticipate and design for all possible sequences of use.  
3 Procedurally designed programs are not capable of responding quickly to events.
- 21 S 1 Which of the following best describes an object's interface?  
1 The links that an object has with other objects.  
2 The complete set of signatures for all the object's operations.  
3 The view that an object presents to users of the system.
- 22 S 1 Which of the following is true about system requirements?  
1 They can be used to develop user acceptance tests.  
2 They are mainly identified during systems engineering.  
3 They change from one phase to another.





23 S	1	Consider the following statements about CASE tools: Current CASE tools can perform semantic checks on a set of diagrams modelling an information system. Current CASE tools can perform syntactic and consistency checks on a set of diagrams modelling information system. Current CASE tools can perform syntactic checks on a set of diagrams modelling information system. Which of the following is true?
		<input checked="" type="checkbox"/> 1 Statements A and C are true.
		<input checked="" type="checkbox"/> 2 Statements B and C are true.
		<input type="checkbox"/> 3 Statements A, B and C are true.
24 S	1	Which of the following is not an advantage of prototyping? <input checked="" type="checkbox"/> 1 Prototypes may be used to reduce misunderstandings about requirements. <input checked="" type="checkbox"/> 2 <b>Prototyping requires no analysis or design.</b> <input type="checkbox"/> 3 Prototyping is easy to manage.
25 S	1	Which of the following is an example of a systems development methodology? <input checked="" type="checkbox"/> 1 The Unified Modeling Language. <input type="checkbox"/> 2 The traditional life cycle. <input checked="" type="checkbox"/> 3 <b>The Unified Software Development Process.</b>
26 S	1	As a model is developed it, which of the following does it become? <input checked="" type="checkbox"/> 1 More abstract <input checked="" type="checkbox"/> 2 Less formal <input checked="" type="checkbox"/> 3 More detailed
27 S	1	Some of the tasks in the general problem-solving model are listed below. Which of the following lists these tasks in the correct sequence? <input checked="" type="checkbox"/> 1 Problem definition, Data gathering, Problem redefinition. <input type="checkbox"/> 2 Problem definition, Finding solutions, Problem redefinition. <input type="checkbox"/> 3 Data gathering, Finding solutions, Finding ideas.
28 S	1	Which of the following best describes the term life cycle model? <input checked="" type="checkbox"/> 1 It describes the phases through which a development project passes from the inception of the idea to completion of the product and its eventual decommissioning. <input type="checkbox"/> 2 It describes the way requirements for an application change at different stages in the life of the organization. <input type="checkbox"/> 3 It describes how a computerized information system is used during its lifetime.
29 S	1	Which of the following is not an advantage of using generalization? <input checked="" type="checkbox"/> 1 Generalization helps to encapsulate classes and subsystems so that their implementation is hidden from other parts of the system. <input type="checkbox"/> 2 A generalization hierarchy is easy to extend to fit a changing picture. <input type="checkbox"/> 3 Generalization helps to organize a model so that the degree of similarity between classes is made more explicit.
30 S	1	Analysts and designers use models that consist of which of the following? <input checked="" type="checkbox"/> 1 Diagrams and text <input type="checkbox"/> 2 Only diagrams <input type="checkbox"/> 3 Only text
31 S	1	Which of the following best describes object behaviour? <input checked="" type="checkbox"/> 1 What the object is able to do to other objects. <input checked="" type="checkbox"/> 2 What the object is able to do for other objects. <input type="checkbox"/> 3 What the object is able to do to itself.
32 S	1	Which of the following is not a model? <input checked="" type="checkbox"/> 1 A scale model of Concorde to use in a wind tunnel <input type="checkbox"/> 2 An engineer's drawing of a cross-section through the fuselage of Concorde <input checked="" type="checkbox"/> 3 <b>Concorde</b>
33 S	1	What is meant by multiple inheritance? <input checked="" type="checkbox"/> 1 Multiple inheritance signifies that a class has more than one superclass. <input type="checkbox"/> 2 Multiple inheritance signifies that a class can have different superclasses at different times. <input checked="" type="checkbox"/> 3 Multiple inheritance signifies that a class simultaneously belongs to more than one generalization hierarchy.
34 S	1	Which of the following is not a characteristic of a subclass? <input checked="" type="checkbox"/> 1 A subclass can only have superclasses, it cannot have subclasses of its own. <input type="checkbox"/> 2 A subclass inherits all the characteristics of its superclass. <input type="checkbox"/> 3 A subclass includes at least one detail that is not shared by its superclass.





35 S	1	Which of the following is not a workflow in the Unified Software Development Process?
		<input type="radio"/> 1 Implementation
		<input checked="" type="radio"/> 2 Construction
		<input type="radio"/> 3 Test
36 S	1	Which of the following best describes the relationship between an object and its class?
		<input checked="" type="radio"/> 1 The structure and permitted behaviours of an object are defined by its class.
		<input type="radio"/> 2 A class is a container that holds a collection of similar objects.
		<input type="radio"/> 3 An object is an implementation of a class.
37 S	1	User involvement in software development is important for which of the following reasons?
		<input type="radio"/> 1 It is cheaper to have users as part of the project team rather than professional software developers.
		<input checked="" type="radio"/> 2 Users can influence the way a project proceeds by identifying the most acceptable course of action from various alternatives.
		<input type="radio"/> 3 Users understand why the requirements cannot be met.
38 S	1	Which of the following statements is true about adaptive maintenance?
		<input checked="" type="radio"/> 1 It is concerned with changing the system when requirements change.
		<input type="radio"/> 2 It is concerned with ensuring the system data is adapted to suit changes in the organization.
		<input type="radio"/> 3 It is concerned with maintaining the system so that it can adapt automatically to changes in the organization.
39 S	1	Which of the following is true?
		<input type="radio"/> 1 A diagram contains at least one model
		<input checked="" type="radio"/> 2 A model contains diagrams
		<input type="radio"/> 3 A model consists of one and only one diagram
40 S	1	Which of the following is a useful set of questions to ask when modelling an object, according to Rebecca Wirfs-Brock?
		<input type="radio"/> 1 Where am I, what am I and who do I know?
		<input checked="" type="radio"/> 2 Who am I, what can I do and what do I know?
		<input type="radio"/> 3 What do I have, what can I get and what can I do?





test

surname	name	code	points
M D.	BABU		

test: R-25 UML mock test 2

test time [min]: 20 start time: end time: basic points: 1.000 points for wrong answer: 0.000 points for no answer: 0.000 max score: 35.000 points to pass the exam: 25.000	R-25 UML mock test 2  
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1 S ✓ 1 What are entity classes?

- 1 Classes that contain data.
- 2 Classes that represent something or some concept in the application domain.
- 3 Classes that contain persistent data.

2 S ✓ 1 Which of the following does the figure below show?



- 1 An actor.
- 2 A user.
- 3 A use case.

3 S ✓ 1 Which of the following categories of people are not likely to be involved in a steering committee?

- 1 Senior managers.
- 2 System testers.
- 3 Representatives of users.

4 S ✓ 1 Which of the following is the correct name for the symbols placed round stereotyped names such as «extend»?

- 1 Guillems.
- 2 Guillems.
- 3 Parakeets.

5 S ✓ 1 Which of these is the correct set of USDP analysis class stereotypes?

- 1 Interface, sequence and entity.
- 2 Boundary, control and entity.
- 3 Interface, control and entity.

6 S ✗ 1 One of the following is not a difference between a class diagram and a communication diagram. Which one?

- 1 A communication diagram shows object interaction, while a class diagram ignores this.
- 2 A class diagram shows the names of the classes, while the communication ignores these.
- 3 A class diagram shows more of the structural details than the communication diagram.

7 S ✗ 1 What do boundary classes represent?

- 1 Customers and suppliers of the business.
- 2 People who will use the system.
- 3 Interfaces between the system and its actors.

8 S ✗ 1 How does composition support software reuse?

- 1 Composite structures encapsulate their sub-components, making it easy to treat the composite as a single whole.
- 2 A composite structure is capable of performing more than one task, and thus it is useful in more than one context.
- 3 Composition structures are easy to extend with minimal effort.



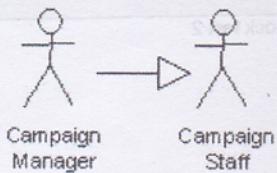


9 S

- 1 One of the following is a bad guideline for deciding the class where an operation should be located. Which one?
- 1 The operation needs to access or update data that is stored in an attribute of that class.
  - 2 The operation needs to access or update data that is stored in another class that has an association with that class.
  - 3 The operation represents a service that objects of that class should provide to objects of other classes.

10 S

- 1 What is shown in the following diagram?



- 1 An inheritance relationship between two actors.
- 2 An Extend dependency between two actors.
- 3 A data flow from one actor to another.

11 S

- 1 Which of the following is not the kind of information gathered to understand usability requirements?
- 1 The volume of data in the existing system.
  - 2 The characteristics of the users of the system.
  - 3 The context in which the system will be used.

12 S

- 1 Which of the following lists only contains systems analysis fact-finding techniques?
- 1 Sampling, background reading, interviewing, use case modelling and activity diagramming.
  - 2 Sampling, questionnaires, interviewing, reading and observation.
  - 3 Use case modelling, interviewing, class diagramming, observation and knowledge acquisition.

13 S

- 1 Which of the following is the best description of a software development pattern?
- 1 The core of a solution to a software development problem that occurs over and over again.
  - 2 The way that a particular software developer tends to solve problems.
  - 3 A particular approach to software development, such as the object-oriented approach or the structured approach.

14 S

- 1 Which of the following best describes the advantages of using software components, assuming that suitable components are available?
- 1 The users are more likely to get what they want.
  - 2 The project is more likely to be completed in less time and at a lower cost.
  - 3 The software is more likely to be capable of running on different hardware platforms.

15 S

- 1 Which of the following is not a reason for analysing the current system (if it exists)?
- 1 Much of the functionality of the existing system will be required in the new system.
  - 2 The analyst must not lose sight of his or her objectives.
  - 3 The analyst needs to know about problems with and defects in the current system.

16 S

- 1 Which of the following is not an example of a functional requirement?
- 1 The system must be capable of responding to all queries within 5 seconds.
  - 2 Users of the system will make 50% fewer errors than with the existing system.
  - 3 The system must allow users to enter details of advertising campaigns.

17 S

- 1 What do control classes represent?
- 1 Classes that control the storage of persistent data.
  - 2 The calculation and scheduling aspects of the logic of the use case.
  - 3 Classes that interact with the users of the system.

18 S

- 1 One of the following cannot directly affect the state of an object. Which one?
- 1 The creation or destruction of a link with another object.
  - 2 The creation or destruction of another object of the same class.
  - 3 A change in the value of one of its attributes.

19 S

- 1 Which of the following best describes how composition differs from aggregation?
- 1 A part that belongs to a composition cannot have associations with any other classes, whereas a part that belongs to an aggregation can have associations with other classes.
  - 2 A part cannot be removed from a composition, whereas a part can be removed from an aggregation.





		3) A part can belong to only one composition, whereas a part can belong to more than one aggregation.
20 S	1	Which of the following describes the figure below?
		<pre> classDiagram     class CheckCampaignBudget {         &lt;&lt;extend&gt;&gt;         class PrintCampaignSummary     }   </pre>
	1	Check campaign budget extends Print campaign summary.
	2	Print campaign summary extends Check campaign budget.
	3	Check campaign budget includes Print campaign summary.
21 S	1	Which of the following does the figure below show?
		<pre> classDiagram     class AssignStaffToWorkOnCampaign   </pre>
	1	An actor.
	2	An activity
	3	A use case
22 S	1	In which of the following circumstances is it not appropriate to use questionnaires?
	1	The views and knowledge of a large number of people must be obtained.
	2	There is a need to check how people actually carry out their work.
	3	The people who work for the organization are geographically dispersed.
23 S	1	What is the significance of the multiplicity of an association?
	1	It constrains the number of times that an object of one participating class can be linked during its lifetime.
	2	It constrains the number of objects of one participating class that can be linked to an object of the other class.
	3	It denotes the number of different classes that can be linked together.
24 S	1	Which of the following best describes multiple inheritance?
	1	Multiple inheritance occurs when a subclass inherits characteristics from more than one level of superclass.
	2	Multiple inheritance occurs when a subclass inherits from more than one generalization hierarchy.
	3	Multiple inheritance occurs when a subclass is removed from one generalization hierarchy and added to another.
25 S	1	Which is the correct name for "a possible set of classes, together with an understanding of how those classes might interact to deliver the functionality of a use case"?
	1	A realization.
	2	A use case class diagram.
	3	A collaboration.
26 S	1	Which of the following is not a reason for using prototyping during use case development?
	1	To test the architecture of architecturally significant use cases.
	2	To clarify requirements.
	3	To get the user interface development started before the class diagramming is begun.
27 S	1	Which of the following is true?
	1	An Extend relationship means that the functionality of one use case inherits the functionality of another at a particular point or points in its execution.
	2	An Extend relationship means that the functionality of one use case always extends the functionality of another at a particular point or points in its execution.





**Q3** An Extend relationship means that the functionality of one use case optionally extends the functionality of another at a particular point or points in its execution.

**28 S** 1 Which of the following answers is the correct interpretation of the association multiplicities shown on this diagram?



- 1 A grade cannot be associated with a staff member but a staff member can be associated with a grade.
- 2 A staff member need not be associated with any grades, or it can be associated with an indeterminate number of grades; a grade must be associated with one or more staff members.
- 3 A grade need not be associated with any staff members, or it can be associated with an indeterminate number of staff members; a staff member must be associated with one or more grades.

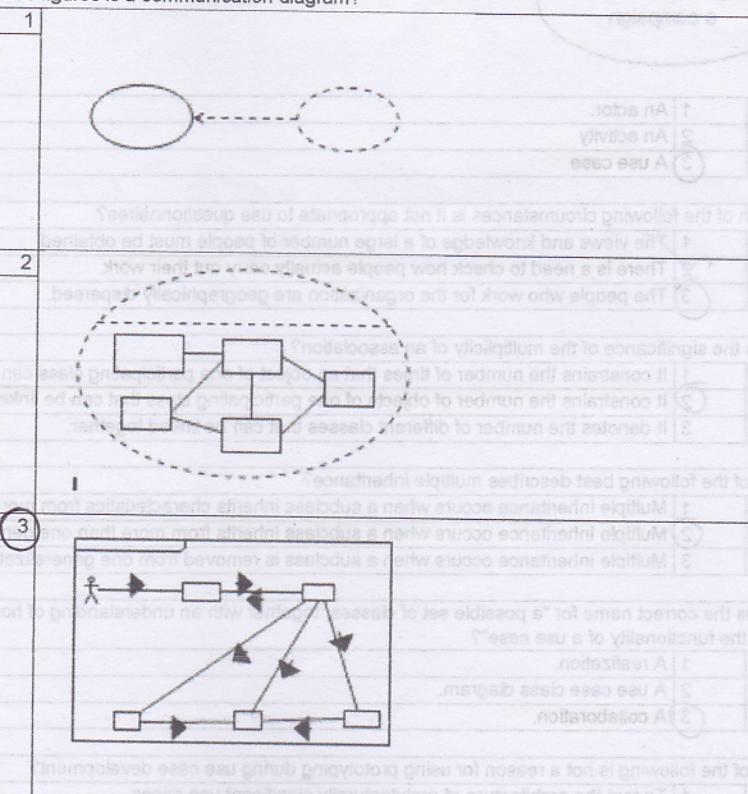
**29 S** 1 One of the following is not a reason why object-oriented approaches support software reuse. Which one?

- 1 Object-oriented models are organized in a way that makes it easier to find suitable components.
- 2 Object-oriented development encourages developers to share ideas with developers in other teams.
- 3 Object-oriented development encourages the encapsulation of the internal details of components.

**30 S** 1 What does it mean to say that an operation has been redefined?

- 1 The definition of the operation has been changed because users have changed their minds about the requirements.
- 2 The definition of the operation in a subclass overrides the superclass definition of the same operation.
- 3 The method that implements the operation does not follow the original definition of the operation.

**31 S** 1 Which of these figures is a communication diagram?



**32 S** 1 What is meant by the NIH syndrome?

- 1 Some project managers are not inclined to trust programmers who were trained elsewhere.
- 2 Some software developers are not inclined to trust software that was written elsewhere.
- 3 Many users are not inclined to trust software that was written elsewhere.

**33 S** 1 When do we not need to represent the whole system as a class in the analysis model?

- 1 When the users have not stated that this is a requirement.





<input type="checkbox"/>	2 When the system does not need to interact directly with other systems.
<input checked="" type="checkbox"/>	3 When the system does not need to encapsulate data or behaviour that applies only to the system as a whole.

34 S

1	One of these is not a permitted symbol for an entity class. Which one?
<input type="checkbox"/>	
<input checked="" type="checkbox"/>	
<input type="checkbox"/>	

35 S

1	What is the role of encapsulation in reuse?
<input type="checkbox"/>	1 Encapsulation means that software components can work more efficiently.
<input checked="" type="checkbox"/>	2 Encapsulation means that it is not necessary for other developers to know how a software component works internally.
<input type="checkbox"/>	3 Encapsulation means that there is no need for software developers to document their work.





test			
surname	name	code	points
MD.	BABLU		

**test: R-36 UML mock test ch-9**

R-36 UML mock test ch-9	
test time [min]:	60
start time:	2023-08-20 10:00:00
end time:	2023-08-20 10:00:00
basic points:	1.000
points for wrong answer:	0.000
points for no answer:	0.000
max score:	15.000

1 S

1 Which of the following is a disadvantage of communication diagrams?

- 1 A communication diagram cannot include guard conditions.
- 2 A communication diagram is difficult to read if there are many messages between two objects.
- 3 A communication diagram can only be used during analysis.

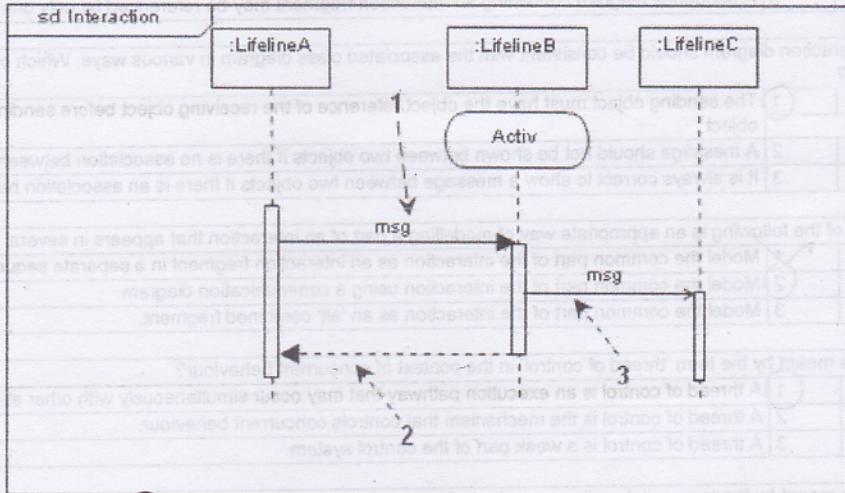
2 S

1 Which of the following is true about boundary objects?

- 1 The identification and specification of boundary objects is considered in both analysis and design but in different ways.
- 2 The identification and specification of boundary objects is purely a design activity.
- 3 The identification and detailed specification of boundary objects is part of requirements specification.

3 S

1 Which of the labelled symbols in the following diagram represents a synchronous message?



- 1 Symbol 1
- 2 Symbol 2
- 3 Symbol 3

4 S

1 Interaction sequence diagrams should be consistent with other diagrams and models that relate to the same group of objects or subsystems. Which of the following statements is true?

- 1 A sequence diagram must show all the messages that are consistent with the state machines for each of the lifelines in the sequence diagram and be consistent with the class diagram.
- 2 A sequence diagram must be consistent with the class diagram or with the state machines for lifelines in the sequence diagram.
- 3 A sequence diagram must be consistent all other diagrams or models that include or relate to the lifelines in the sequence diagram.

5 S

1 In a communication diagram one message has the sequence number 5.1.1. Which of the following sequence numbers indicates the message that must be the immediate successor?

- 1 A message with the sequence number 5.1.1.1.
- 2 A message with the sequence number 5.1.2.



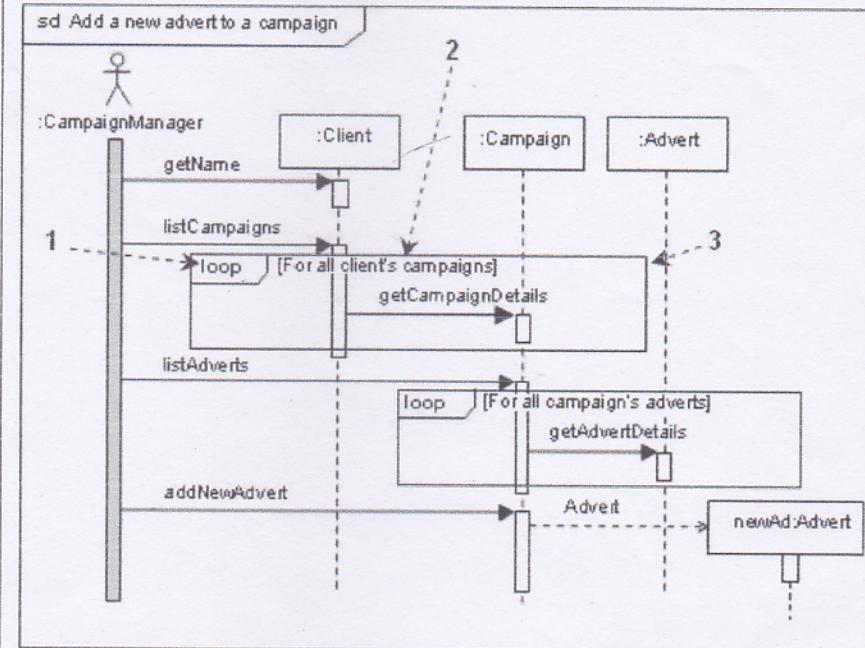


		3   A message with the sequence number 5.2.1.
6 S	1	Which of the following is true?
	①	Message passing is a metaphor used to describe object interaction.
	2	Message passing is only concerned with query operations.
	3	Identifying what messages are passed between objects is a straightforward process.
7 S	1	Which of the following statements is correct about interaction overview diagrams?
	①	An interaction overview diagram may not have decision nodes.
	2	An interaction overview diagram may only have interaction occurrences, initial pseudostates and final pseudostates as nodes in the diagram.
	③	An interaction overview diagram may include in-line sequence diagrams.
8 S	1	Timing diagrams are used to show how timing constraints affect interactions between lifelines. Which of the following statements is true?
	1	Messages are not shown on timing diagrams.
	2	A lifeline may only have two alternative states.
	③	When a state change is being modelled that takes significant (from the application's perspective) time it is shown by a slanting line.
9 S	1	What is meant by the term interaction?
	1	An interaction describes any communication between two lifelines.
	2	An interaction describes a group of lifelines that share functionality.
	③	An interaction defines the message passing between lifelines (e.g. objects) within the context of a collaboration to achieve a particular behaviour.
10 S	1	Which of the following statements about sequence diagrams is true?
	②	A sequence diagram containing an interaction fragment may be referenced by one or more sequence diagrams.
	3	A sequence diagram containing an interaction fragment may be referenced by only one sequence diagram.
11 S	1	An interaction diagram should be consistent with the associated class diagram in various ways. Which of the following statements is true?
	①	The sending object must have the object reference of the receiving object before sending a message to that object.
	2	A message should not be shown between two objects if there is no association between their classes.
	3	It is always correct to show a message between two objects if there is an association between their classes.
12 S	1	Which of the following is an appropriate way of modelling a part of an interaction that appears in several other interactions?
	①	Model the common part of the interaction as an interaction fragment in a separate sequence diagram.
	2	Model the common part of the interaction using a communication diagram.
	3	Model the common part of the interaction as an 'alt' combined fragment.
13 S	1	What is meant by the term 'thread of control' in the context of concurrent behaviour?
	①	A thread of control is an execution pathway that may occur simultaneously with other execution pathways.
	2	A thread of control is the mechanism that controls concurrent behaviour.
	3	A thread of control is a weak part of the control system.
14 S	1	What is meant by the term collaboration in context of interaction modeling?
	①	A collaboration describes the structure and links between a group of instances playing roles in a behaviour.
	2	A collaboration describes the messages between objects.
	3	A collaboration describes objects that share functionality.



158

- 1 Which of the arrows labelled 1, 2 or 3 is pointing to an interaction constraint?



- |   |         |
|---|---------|
| 1 | Arrow 1 |
| 2 | Arrow 3 |
| 3 | Arrow 2 |



MD. BABU  
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**QUIZ -1**  
**Competency Unit -STCESADJ2EE 404**

**Module-04**

**Total Marks-46**

43

1. How can you retrieve information from a ResultSet?
  1. By invoking the method get (... , String type) on the ResultSet, where type is the database type
  2. By invoking the method get (... , Type type) on the ResultSet, where Type is an object which represents a database type
  3. By invoking the method getValue (...), and cast the result to the desired java type
  4. By invoking the special getter methods on the ResultSet: getString (...), get Boolean (...), getClob (...),...
2. Result set meta data are retrieved through \_\_\_\_\_
  1. a Connection object
  2. a Statement object
  3. a ResultSet Object
  4. a PreparedStatement object
3. What statements are correct about batched insert and updates?
  1. None of the above
  2. Batch insert and updates are only possible when making use of parameterized queries.
  3. To do a batched update/insert, you call addBatch(String statement) on a Statement object for each statement you want to execute in the batch
  4. To create a batch of insert and update statements, you create an object of type Batch, and call the method addStatement(String statement) for each statement you want to execute in the batch
4. To execute a SELECT statement "select \* from Address" on a Statement object stmt, use
  1. stmt.executeUpdate("select \* from Address");
  2. stmt.executeQuery("select \* from Address");
  3. stmt.execute("select \* from Address");
  4. stmt.query("select \* from Address");
5. Which statements about JDBC is true?
  1. JDBC stands for Java DataBase Connectivity
  2. JDBC is an API to bridge the object-relational mismatch between OO programs and relational databases
  3. None of the above
  4. JDBC is an API to connect to relational, object- and XML data sources
6. A database URL for a MySQL database named test on host panda.armstrong.edu is \_\_\_\_\_.
  1. jdbc:mysql://panda.armstrong.edu/test
  2. jdbc.mysql://panda.armstrong.edu/test
  3. jdbc.mysql://panda.armstrong.edu/test
  4. jdbc:mysql://panda.armstrong.edu/test
7. Which one of the following will not get the data from the first column of ResultSet rs, returned from executing the following SQL statement: SELECT name, rank, serialNo FROM employee.?
  1. rs.getString(2)
  2. rs.getString("name")
  3. none of them
  4. rs.getString(1)
8. How can you execute a stored procedure in the database?
  1. Call method execute() on a StoredProcedure object
  2. Call method run() on a ProcedureCommand object

3. Call method executeProcedure() on a Statement object
4. Call method execute() on a CallableStatement object
9. What information may be obtained from a DatabaseMetaData object?
- maximum number of connections to the database
  - database URL and product name
  - maximum table name length and maximum number of columns in a table
  - JDBC driver name and version
10. What happens if you call the method close() on a ResultSet object?
- the ResultSet, together with the Statement which created it and the Connection from which the Statement was retrieved, will be closed and release all database and JDBC resources
  - you will get a SQLException, because only Statement objects can close ResultSets
  - the database and JDBC resources are released
  - the method close() does not exist for a ResultSet. Only Connections can be closed
11. Which type of Statements can execute parameterized queries?
- ParameterizedStatement
  - PreparedStatement
  - ParameterizedStatement and CallableStatement
  - All kinds of Statements (i.e. which implement a sub interface of Statement)
12. Analyze the following code:
- ```
ResultSet resultSet = statement.executeQuery  
("select firstName, mi, lastName from Student where lastName"  
+ " = 'Smith'");  
System.out.println(resultSet.getString(1))
```
- If the SQL SELECT statement returns no result, resultSet is null.
  - resultSet.getString(1) returns the mi field in the result set.
  - resultSet.getString(1) returns the firstName field in the result set.
  - The program will have a runtime error, because the cursor in resultSet does not point to a row. You must use resultSet.next() to move the cursor to the first row in the result set. Subsequently, resultSet.next() moves the cursor to the next row in the result set.
13. Which of the following statements are true?
- You may load multiple JDBC drivers in a program.
  - You may create multiple connections to a database.
  - You can send queries and update statements through a Statement object.
  - You may create multiple statements from one connection.
14. Which of the following statements are true about PreparedStatement?
- PreparedStatement is a subinterface of Statement
  - The parameters in a prepared statement are denoted using the ? sign.
  - PreparedStatement is for SQL query statements only. You cannot create a PreparedStatement for SQL update statements.
  - PreparedStatement is efficient for repeated executions.
15. What is correct about DDL statements (create, grant,...)?
- DDL statements can not be executed by making use of JDBC, you should use the native database tools for this.
  - Support for DDL statements will be a feature of a future release of JDBC
  - DDL statements are treated as normal sql statements, and are executed by calling the execute() method on a Statement (or a sub interface thereof) object
  - To execute DDL statements, you have to install additional support files

16. A database URL for an access database source test is \_\_\_\_\_.
1. sun.jdbc:odbc:test
  2. test
  - 3. jdbc:odbc:test**
  4. jdbcodbc:test
17. How can you execute DML statements (i.e. insert, delete, update) in the database?
1. By making use of the execute(...) statement of the DataModificationStatement object
  2. By invoking the executeInsert(...), executeDelete(...) or executeUpdate(...) methods of the DataModificationStatement object
  3. By making use of the InsertStatement, DeleteStatement or UpdateStatement classes
  - 4. By invoking the execute(...) or executeUpdate(...) method of a normal Statement object or a sub-interface object thereof**
18. What is the meaning of ResultSet.TYPE\_SCROLL\_INSENSITIVE
1. This means that the ResultSet is insensitive to scrolling
  - 2. This means that the ResultSet is sensitive to scrolling, but insensitive to changes made by others**
  3. This means that the ResultSet is sensitive to scrolling, but insensitive to updates, i.e. not updateable
  4. The meaning depends on the type of data source, and the type and version of the driver you use with this data source
19. Which of the following statements loads the JDBC-ODBC driver?
- 1. Class.forName("sun.jdbc.odbc.JdbcOdbcDriver")**
  2. Class.loadClass("sun.jdbc.odbc.JdbcOdbcDriver")
  3. Class.loadClass(sun.jdbc.odbc.JdbcOdbcDriver)
  4. Class.forName(sun.jdbc.odbc.JdbcOdbcDriver)
20. What information may be obtained from a ResultSetMetaData object?
- 1. number of columns in the result set**
  2. JDBC driver name and version
  3. database URL and product name
  4. number of rows in the result set
21. Suppose that your program accesses MySQL or Oracle database. Which of the following statements are true?
1. If the driver for MySQL and Oracle are not in the classpath, the program will have a syntax error.
  - 2. If the database is not available, the program will have a runtime error, when attempting to create a Connection object.**
  3. If the database is not available, the program will have a syntax error.
  - 4. If the driver for MySQL and Oracle are not in the classpath, the program will have a runtime error, indicating that the driver class cannot be loaded.**
22. Which packages contain the JDBC classes?
- 1. java.sql and javax.sql**
  2. java.jdbc and javax.jdbc
  3. java.jdbc and java.jdbc.sql
  4. java.rdb and javax.rdb
23. If a prepared statement preparedStatement is a SQL SELECT statement, you execute the statement using
1. preparedStatement.executeUpdate();
  2. preparedStatement.query();
  3. preparedStatement.execute();
  - 4. preparedStatement.executeQuery();**

24. What is the return value from

```
stmt.executeUpdate("insert into T values (100, 'Smith')")
```

1. a value indicating whether the SQL statement has been executed successfully
2. void
3. an object that contains the status of the execution
4. an int value indicating how many rows are effected from the invocation

25. Suppose a prepared statement is created as follows:

```
Statement preparedStatement = connection.prepareStatement
```

```
("insert into Student (firstName, mi, lastName) " +  
"values (?, ?, ?);")
```

To set a value John to the first parameter, use

1. preparedStatement.setString(0, 'John');
  2. preparedStatement.setString(0, "John");
  3. preparedStatement.setString(1, "John");
  4. preparedStatement.setString(1, 'John');
26. How can you start a database transaction in the database?
1. By calling the method beginTransaction() on the Connection object
  2. By asking a Transaction object to your Connection, and calling the method begin() on it
  3. By asking a Transaction object to your Connection, and setting the autoCommit property of the Transaction to false
  4. By setting the autoCommit property of the Connection to false, and execute a statement in the database

27. SQL \_\_\_\_\_ statements may not change the contents of a database.

1. DELETE
2. INSERT
3. SELECT
4. UPDATE

28. What statements are correct about JDBC transactions

1. A transaction is finished when commit() or rollback() is called on the Connection object
2. A transaction is a set of successfully executed statements in the database
3. All of the above
4. A transaction is finished when commit() or rollback() is called on the Transaction object

29. Suppose a callable statement is created as follows:

```
CallableStatement callableStatement = connection.prepareCall(  
" {call sampleProcedure(?, ?, ?)} ");
```

Assume that the second parameter is an OUT parameter with value John. To register this parameter, use

1. callableStatement.registerOutParameter(2, java.sql.Types.STRING);
2. callableStatement.registerOutParameter(1, java.sql.Types.STRING);
3. none of them
4. callableStatement.registerOutParameter(0, java.sql.Types.STRING);

30. Where is com.mysql.jdbc.Driver located?

1. in a JAR file ojdbc14.jar
2. in a JAR file classes12.jar
3. in a JAR file mysqljdbc.jar
4. in the standard Java library bundled with JDK

31. Are ResultSets updateable?

1. Yes, but only if the ResultSet is an object of class UpdateableResultSet, and if the driver and database support this option
2. Yes, but only if you indicate a concurrency strategy when executing the statement, and if the driver and database support this option
3. No, ResultSets are never updateable. You must explicitly execute DML statements (i.e. insert, delete and update) to change the data in the underlying database
4. Yes, but only if you call the method openCursor() on the ResultSet, and if the driver and database support this option

32. What is the function of Class.forName?

1. In establishing a connection is to have the appropriate driver connect to the DBMS
2. It is used to create an instance of a driver and register it with the DriverManager
3. Both are false
4. Both are true

33. You run a SELECT statement, and multiple duplicates of values are retrieved. What keyword can you use to retrieve only the non-duplicate data?

1. DUPLICATE
2. DISTINCT
3. SEPARATE
4. INDIVIDUAL

34. Invoking Class.forName method may throw \_\_\_\_\_

1. ClassNotFoundException
2. RuntimeException
3. SQLException
4. IOException

35. To connect to a local MySQL database named test, use \_\_\_\_\_

1. Connection connection = DriverManager.getConnection("mysql:jdb:localhost/test");
2. Connection connection = DriverManager.getConnection(jdbc:mysql://localhost/test);
3. Connection connection = DriverManager.getConnection("jdbc:mysql://localhost/test");
4. Connection connection = DriverManager.connect("jdbc:mysql://localhost/test");

36. Which of the following are interfaces?

1. DriverManager
2. ResultSet
3. Connection
4. Statement

37. In a relational data model, \_\_\_\_\_ defines the representation of the data.

1. Language
2. SQL
3. Integrity
4. Structure

38. How do you know in your Java program that a SQL warning is generated as a result of executing a SQL statement in the database?

1. You must catch the checked SQLException which is thrown by the method which executes the statement
2. You must query the ResultSet object about possible warnings generated by the database
3. You must invoke the getWarnings() method on the Statement object (or a sub interface thereof)

4. You must catch the unchecked SQLWarningException which is thrown by the method which executes the statement

39. Database meta data are retrieved through \_\_\_\_\_

1. a Statement object
2. a PreparedStatement object
3. a Connection object
4. a ResultSet Object

explanation:

Explanation: getMetaData() on a Connection object returns a DatabaseMetaData object.

40. In a relational data model, \_\_\_\_\_ imposes constraints on the data.

1. Integrity
2. SQL
3. Structure
4. Language

41. Which of the following statements are true about CallableStatement ?

1. CallableStatement is for executing predefined functions and procedures.
2. CallableStatement is more efficient than PreparedStatement.
3. CallableStatement is a subinterface of PreparedStatement
4. CallableStatement is for SQL query statements only. You cannot create a CallableStatement for SQL update statements.

42. In your program you want to use the JDBC-ODBC Bridge driver. What code do you use?

1. Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
2. Class.Name.init("sun.jdbc.odbc.JdbcOdbcDriver");
3. Class.calfunc("JdbcOdbcDriver");
4. Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");

43. What is, in terms of JDBC, a DataSource?

1. A DataSource is a registry point for JNDI-services
2. A DataSource is the Java representation of a physical data source
3. A DataSource is a factory of connections to a physical data source
4. A DataSource is the basic service for managing a set of JDBC drivers

44. What happens if you call deleteRow() on a ResultSet object?

1. You will get a compile error: the method does not exist because you can not delete rows from a ResultSet
2. The row you are positioned on is deleted from the ResultSet, but not from the database
3. The row you are positioned on is deleted from the ResultSet and from the database
4. The result depends on whether the property synchronizeWithDataSource is set to true or false

45. Suppose a callable statement is created as follows:

```
CallableStatement callableStatement = connection.prepareCall(  
    "{call sampleProcedure(?, ?, ?)}");
```

Assume that the first parameter is an IN parameter with value John. To set this parameter value, use

1. callableStatement.setString(0, "John");
2. callableStatement.setString(0, 'John');
3. callableStatement.setString(1, 'John');
4. callableStatement.setString(1, "John");

46. To create a statement on a Connection object conn, use

1. Statement statement = connection.createStatement();
2. Statement statement = Connection.createStatement();
3. Statement statement = conn.createStatement();
- 4) Statement statement = conn.createStatement();