

1. How should a developer prevent a recursive trigger?
  - a. **Use Static Boolean variable**
  - b. Use a "One trigger per object" pattern
  - c. Use a trigger handler
  - d. Use a private Boolean variable
2. What are the three ways for a developer to execute tests in an org?  
Choose 3 answers
  - a. Metadata API
  - b. **Developer console**
  - c. Bulk API
  - d. **Tooling API**
  - e. **Setup Menu**
3. A Developer created a Helper class with a method that can be called from visualforce pages, web services, triggers, and even anonymous code. When the method is called from a trigger, a developer needs to execute logic that should not be executed if the method is called from any where else.

How can the developer determine if the code is executed in a trigger context?

- a. **Check if trigger.isexecuting == true**
  - b. Check if trigger.newMap != Null
  - c. Check if system.executioncontext == "trigger"
  - d. Use the executionontrigger annotation on the method definition.
4. What are two considerations for deciding to use a roll-up summary field?  
Choose 2 answers
  - a. **Roll-up summary field can be performed on formula fields, but if their formula contains an #error result, it may affect the summary value.**
  - b. Roll-up cannot be performed on formula field
  - c. **Roll-up summary field do not cause validation rules on the parent object unless that object is edited separately.**
  - d. Roll-up cannot be performed on formula fields that use cross-object references or on-the-fly calculations such as NOW()
5. Which collection type provides unique key/value pairing of data?
  - a. List
  - b. **Map**
  - c. Array
  - d. Set

6. What can a developer use to determine if the core apex code exceeds any governor limits in a test class during bulk execution
- a. Test.getDMLStatements()
  - b. Limits, startTest, stopTest**
  - c. @TestVisible
  - d. @TestSetup
7. What are the two features of Heroku connect?  
Choose 2 answers
- a. Near real time sync between Heroku postgres and Salesforce
  - b. Bidirectional syncs, allowing data to be written into salesforce**
  - c. Realtime sync between salesforce and postgres**
  - d. Displaying data from an external data store vs external objects
8. A developer created lightning component named accountList.cmp that displays list of Accounts. Client-side logic that executed when user hovers over an account in the list should be sorted in which bundle member
- a. accountListRenderer.js
  - b. accountListHelper.js**
  - c. accountList.renderer
  - d. accountlist.helper
9. What are the two testing considerations when deploying code from sandbox to production?  
Choose 2 answers
- a. 75% of tests must be cover without failure
  - b. Apex code requires 100% coverage
  - c. 100% of tests must executes without failure**
  - d. Apex code requires 75% of code coverage**
10. How can developer set debug log on a specific user?
- a. It is not possible to setup debug logs for users other than yourself.
  - b. Create Apex code that logs code actions in to a custom object.
  - c. Asks user to access their account credentials, log in as user and debug the issue
  - d. Setup the trace flag for a user, and define a logging level and time period for the trace.**

11. A lead object has a custom field Prior\_Email\_\_c. The following trigger is intended to copy current email into the Prior\_Email\_\_c field anytime the email field is changed

```
trigger test on Lead (before update) {
    for (Lead Id: trigger.new) {
        if (Id.Email != trigger.oldMap.get(Id.id).Email) {
            Id.Prior_Email__c = trigger.oldMap.get(Id.id).Email;
            update Id;
        }
    }
}
```

Which type of exception will this trigger cause?

- a. A compile time exception
  - b. A null reference exception
  - c. **A DML exception**
  - d. A Limit Exception when doing a bulk update
12. A developer is asked to write negative tests as part of unit testing for a method that calculates a person's age based on birth date.

What should the negative tests include?

- a. **Throwing a custom exception in the unit test**
  - b. Assert that a null value is accepted by method
  - c. Assert that past dates are accepted by method
  - d. Assert that future dates are rejected by the method
13. A developer created lightning component to display a small text summary for an object and want to use it with multiple Apex classes

How should developer design the apex classes?

- a. **Have each class implement an interface the defines method getTextSummary() that returns the summary**
- b. Have each class define method getTextSummary() that returns the summary
- c. Have each class define method getObject() that returns the sObject that controlled by the Apex Class
- d. Extend each class from the same base class that has a method getTextSummary() that returns the summary.

14. A developer created visualforce page and apex controller that uses the sharing keyword. The page will be used by sales manager and should only display accounts owned by sales representatives who report to the running sales manager. The organization wide sharing for accounts is set to private.

Which addition set of steps should the developer takes?

- a. Create one Profile, two Permission sets, and one role.
- b. Create one Profile, one Permission set, and one role.
- c. **Create one Profile, one Permission set, and two roles.**
- d. Create two Profile, one Permission set, and one role.

15. When would the use of Heroku postgres be appropriate?

- a. To Interconnect Microsoft SQL servers to Heroku applications
- b. To Cache commonly accessed data for faster retrieval
- c. To store user-generated pictures and documents
- d. **To store and retrieve data using structured query language.**

16. A developer needs to display all the available field for an object.

In which two ways can the developer retrieve the available fields if the variable myObject represents name of the object.

Choose 2 answers

- a. Use `myObject.sObjectType.getDescribe().fieldSet()` to return a set of fields
- b. Use `SObjectType.myObject.fields.getMap()` to return a map of fields
- c. **Use `Schema.describeSObjects( new string[][myObject])[0].fields.getMap()` to return a map of fields**
- d. **Use `getGlobalDescribe().get(myObject).getDescribe().fields.getMap()` to return a map of fields**

17. How can custom type be identified as unique when added to a set ()

- a. The class must have a method with the `@InvocableMethod` annotation
- b. **The class must implement the equals and hashCode methods**
- c. Method in the class must be static
- d. Method in the class must be global

18. A sales manager wants to make sure the whenever an opportunity stage changed to “Closed Won”, a new case will be created for the support team to collect necessary information from the customer.

- a. Setup a validation rule on opportunity.Stage
- b. Create a workflow rule to create the new case
- c. **Create a process builder to create the new case**
- d. Create a lookup field to the case object on the opportunity object.

19. Which two are true regarding Dyno?

Choose 2 answers

- a. Has the ability to sleep as standard and performance dyno
- b. Is a lightweight linux container used in collection to run Heroku applications.**
- c. Has Ephemeral filesystems and is rebooted every 24 hours.**
- d. Is a lightweight VM used to run code on Heroku platform.

20. A developer is created test coverage for a class and needs to insert records to validate functionality.

- a. @PreTest
- b. @isTest(SeeAllData==true)
- c. @BeforeTest
- d. @TestSetup**

21. A Developer encounters APEX heal limit error in a trigger.

Which two methods should the developer use to avoid this error?

Choose 2 answers

- a. Use the transient keyword when declaring variables**
- b. Query and store fields from the related object in collection when updated related objects
- c. Remove or set collections to null after use.
- d. Use SOQL for loops instead of assigning larger queries results to a single collection and looping through the collection.**

22. Given the code block:

```
Integer x;  
for(x=0; x<10; x+=2)  
{  
    If(x==8) break;  
    If(x==10) break;  
  
}  
System.debug(x);
```

Which value will system.debug statement display?

- a. 10
- b. 4
- c. 8**
- d. 2

23. A developer is asked to create PDF quote document formatted using company's branding guidelines, and automatically save it to opportunity record.

- a. Install an application from the AppExchange to generate documents
- b. Create a visualforce page with custom styling
- c. Create visual flow that implements the company's formatting**
- d. Create email template and use it in process builder.

24. A method is passed a list of generic SObject as a parameter

What should the developer do to determine which object type(Account, lead or contact, for example) to cast each sObject?

- a. Use a try-catch construct to cast the sObject into one of the three sObject types
- b. Use the first three characters of the sObject ID to determine the sObject type.
- c. Use the getSObjectName method on the sObject class to get the sObject name
- d. Use the getSObjectType method on each generic sObject to retrieve the sObject token.**

25. A Developer writes following code:

```
List<Account> acc = [Select Id from Account LIMIT 10];
```

```
Delete acc;
```

```
Database.emptyRecycleBin(acc);
```

```
System.Debug(Limits.getDMLStatements() + ' , ' + Limits.getLimitDMLStatements());
```

- a. 2, 150**
- b. 1, 150
- c. 2, 200
- d. 1, 100

26. User report multiple intermittent errors and unexpected results when saving record. Upon investigation, the developer finds that triggers are executing more than once.

What is the potential solution to solve this situation?

- a. Disable all triggers and use workflows.
- b. Use one trigger per object approach
- c. Use private class variable to ensure that the trigger only runs once
- d. Use static variable to check if the trigger has already run.**

27. What are two ways developer should deploy code from a developer org to an unrelated production org?

Choose 2 answers

- a. Setup a salesforce to salesforce connection and deploy change set
- b. Use IDE to upload the new code directly into production org use the metadata API**
- c. Package the code as an unmanaged package and install in the production org.**
- d. Login into the production org and set developer org as an inbound connection in the deployment settings screen.
- e. Save the code to a folder on the developer's computer, create an incoming change set in production org and upload the files directly

28. Which two describe Heroku redis?

Choose 2 answers

- a. Is a repository for storing large images
- b. Is an option for long-term data storage
- c. Is an in-memory key-value data store, run by Heroku**
- d. Is Provisioned and managed as an add-on**

29. A lead record that has a single related CampaignMember object converted into a new account, contact, and opportunity.

- a. The account
- b. The opportunity**
- c. The product2
- d. The contact

30. What does the context variable Trigger.old represent in an update operation?

- a. The previous version of values of the records firing the trigger**
- b. The current values for records firing the trigger
- c. A map of IDs to the old version of the record
- d. The same values of trigger.new

31. Which SOQL query successfully returns the accounts grouped by name?

- a. Select Id, type, Max(createdDate) from Account Group by Name
- b. Select type, Name, Max(createdDate) from Account Group by Name LIMIT 5
- c. Select Name, Max(createdDate) from Account Group by Name**
- d. Select Type, Max(createdDate) from Account Group by Name

32. In Which two org types can a developer create new Apex classes?

Choose 2 answers

- a. **Developer Edition**
- b. Enterprise Edition
- c. Unlimited Edition
- d. **Sandbox**

33. UC wants to automate the sales operations for closed won opportunities. When an opportunity marked as closed won, UC wants to update the account to mark it as a customer. In Addition, UC wants all of the opportunity Line Items from a closed won opportunity to be added automatically as assets.

What is appropriate for automating the process?

- a. Workflow rules
- b. Process builder
- c. Workflow rules and process builder
- d. **Process builder with an autolunched flow.**

34. A Visualforce page is written with the following controller and extensions:

```
<apex:page standardController="Account" extensions="myExtension">  
    <apex:inputField value = "{!account.Name}"/><p/>  
    <apex:commandButton value="Save" action="{!save}" />  
</apex:page>
```

The extension class myExtension has public save() method.

Which save method or methods will be used by Visaulforce page?

- a. **The save method from controller extension**
- b. Both – the standard controller first, then myExtension
- c. The save method from standard controller
- d. Both – myExtension first , then standard controller.



35. When viewing a Quote, the sales representative wants to easily see how many discounted items are included in the Quote line items.

What should developer do to meet this requirement

- a. **Create roll-up summary field on Quote object that performs a SUM on the Quote Line Item Quantity field, filtered for only discounted Quote line items**
  - b. Create a work flow rules on the Quote line item object that updates a field the parent quote when the item is discounted.
  - c. Create a trigger on quote object that queries the quantity field on discounted Quote line items.
  - d. Create formula field on Quote object that performs a SUM on Quote Line Item Quantity field, filtered for only discounted Quote Line items.
36. Which two are true regarding Apache Kafka on Heroku?  
Choose 2 answers

- a. **Is a distributed commit log for communication between services?**
- b. **Is a messaging backbone for building distributed application?**
- c. Is an add-on that creates a long-term data store
- d. Is designed to move small volume of ephemeral data

37. A developer executes the following query in APEX to retrieve a list of contacts for each account:

```
List<Account> accounts = [Select Id, Name, (Select Id, Name from Contacts) from Account];
```

Which two exceptions may occur when it executes

Choose 2 answers

- a. CPU limit exception due to the complexity of the query
- b. **SOQL query row limit exception due to the number of contacts**
- c. SOQL query limit exception due to number of queries
- d. **SOQL query row limit exception due to number of accounts**

38. What is the output of following code?

```
Integer index = 1;
Integer counter = 2;

do
{
    System.debug(index);
    index++;
    counter++;
}
while (index == 20 && counter == 21);
```

- a. **Debug statement will output 1**
- b. Debug statement will repeat outputs from 1 to 21
- c. Debug statement will repeat outputs from 1 to 20
- d. Debug statement will output 20

39. A developer has a unit test that is failing. To identify the issue, the developer copies the code inside the test method and executes it via the execute anonymous Apex tool. The code then executes without failing.

Why did the unit test fail, but not the execute anonymous?

- a. The test method has syntax error in the code.
- b. The test method calls an @future method
- c. **The test method relies on existing data in the database**
- d. The test method uses try/catch block

40. What is printed from the following code?

```
Integer a= 0;
Integer b;
a = a++;
a++;
Integer c= a*5;
String s = String.valueOf(c) + a;
System.debug(s + ',' + a + ',' + b);
```

- a. **51;1;null**
- b. 6;1;0
- c. 6;1;null
- d. 51;1;0

41. What is the return data type when `ApexPages.currentPage().getParameters()` is used to retrieve URL parameters from a visualforce controller?

- a. Enum
- b. Map<string, string>**
- c. List<string>
- d. String[]

42. Which two queries can developer use in visualforce controller to protect against SQL injection vulnerabilities?

Choose 2 answers

- a.  
`String qryName= '%' + name + '%'`  
`String qryString = 'select id from contact where name like :qryName';`  
`List<Contact> qryResult = Database.query(qryString);`
- b.  
  
`String qryString = 'select id from contact where name like \'%' + name + '%\'';`  
`List<Contact> qryResult = Database.query(qryString);`
- c.  
**`String qryName= '%' + string.enforceSecurityChecks(name) + '%'`**  
**`String qryString = 'select id from contact where name like :qryName';`**  
**`List<Contact> qryResult = Database.query(qryString);`**
- d.  
  
`String qryName= '%' + string.escapeSingleQuotes(name) + '%'`  
`String qryString = 'select id from contact where name like :qryName';`  
`List<Contact> qryResult = Database.query(qryString);`

43. What are the two benefits of using the lightning component Framework?

Choose 2 answers

- a. Lightning components renders on the client, providing performance benefits**
- b. Lightning components framework includes libraries for integrating with popular webservicees
- c. Lightning components renders on the server, ensuring greater security and control.
- d. Lightning components are built using web standards, ensuring cross-browser compatibility.**

44. A developer needs to write a method that searches for a phone number that could be on multiple object types.

Which method should the developer use to accomplish this task?

- a. **SOSL search that includes ALL rows**
- b. SOSL Search
- c. SOQL Query on each object
- d. SOQL Query that includes ALL ROW

45. Which tool can deploy destructive changes to apex classes on production?

- a. Change sets
- b. Developer console
- c. Salesforce setup
- d. **Workbench**

46. which three options allow a developer to use custom styling in a visualforce page?

Choose 3 answers

- a. **inline CSS**
- b. **a static resource**
- c. <apex:style> tag
- d. <apex:stylesheets> tag
- e. **<apex:stylesheet> tag**

47. What are the two correct examples of the model in salesforce MVC architecture?

Choose 2 answers

- a. **Custom field on custom wizard\_\_c object**
- b. **Standard Account lookup on Contact object**
- c. Standard lightning component
- d. Workflow rule on contact object

48. What is the key difference between Master-Detail relationship and Look relationship?

- a. When a record of a master object in lookup relationship is deleted, the detail records are also deleted
- b. When a record of a master object in master-detail relationship is deleted, the details records are kept and not deleted
- c. A lookup relationship is a required field on an object
- d. **A master-detail relationship detail record inherits the sharing and security of its master records.**

49. Universal container (UC) has integration with its accounting system that creates ten thousand of orders inside salesforce in a nightly batch. UC wants to add automation that can attempt to match leads and contacts to these orders using email address field on the insert. UC is concerned about the performance of the automation with large data volume.

Which tool should UC use to automate this process?

- a. Workflow rules
- b. Process builder with an autolunached flow
- c. Apex**
- d. Process Builder.

50. A user Select a value from a multi-Select picklist.

How is this selected value represented in Apex?

- a. As a List<String>with one element.
- b. As a String**
- c. As a String ending with a comma
- d. As s Set<String> with one element

51. When are code coverage calculations updated?

- a. When a deployment is validated.
- b. When changes are made to an organization's configuration
- c. When unit tests are run on an organization.**
- d. When Apex code is saved.

52. How are debug levels adjusted in the Developer Console?

- a. Under the logs tab, click change in the Debug Levels panel.
- b. Under the Debug menu > Change Log Levels..., Click Add/Changes in the Debug Level Action column.**
- c. Under the Edit menu, Click Changes Debug Levels.
- d. Under the Settings menu > Trace Settings..., Click Changes Debug Level.

53. What are two considerations for custom Apex Exception classes?

Choose 2 answers

- a. Custom Exception classes must extend the base Exception class.**
- b. Constructor for custom Exceptions can only accept string values as arguments.
- c. Custom Exception class names must end with the word 'Exception'.**
- d. Custom Exceptions cannot be extended by other Exception classes.

54. A developer Created a Visualforce page with a custom controller to show a list of accounts. The page uses the <apex:selectList> component, with a variable called 'Selection', to show the valid values for Account.type. The page uses an <apex:pageBlockTable> component to display the list of accounts, where the iteration variable is "acct".

The developer want to ensure that when a user selects a type on the <apex:selcetList> component, only accounts with that type are shown on the page.

What should the developer do to accomplish this?

- a. Add the Rendered={!Acct.type==selection} attribute to the pageBlockTable component.
  - b. Create multiple list in the controller that represent the reinvent accounts for each account type when the page loads then reference the correct one dynamically on the pageBlockTable.
  - c. **Use the on-Change event to update the list of accounts in the controller when the value changes, and then re-render the pageBlockTable.**
  - d. Create a component for each option and use a variable with hide parameter on the element.
55. Which three declarative fields are correctly mapped to variable types in Apex?

Choose 3 answers

- a. **Checkbox maps to Boolean.**
  - b. Date/Time maps to Datetime.
  - c. **Number maps to Integer.**
  - d. **Text Area maps to list of type string.**
  - e. Number maps to Decimal.
56. A developer is tasked with creating a schema to track movies, Actors, and contracts. A single movie can have many contracts and a single actor can have many contracts. Each contract is owned and actively managed by a single user.

Which schema should be created to enable users to easily manage the contracts they own; without requiring access to the movie or the Actor records?

- a. A Lookup Relationship to the Movie object and a Master-Detail Relationship to the Actor object.
- b. A Master-Detail Relationship to the Movie object and a Lookup Relationship to the Actor object.
- c. A Master-Detail Relationship to the Movie object and a Master-Detail Relationship to the Actor object.
- d. **A Lookup Relationship to the Movie object and a Lookup Relationship to the Actor object.**

57. What are three characteristics of static methods?

Choose 3 answers

- a. **Initialized only when a class is loaded.**
- b. A static variable is available outside of the scope of an Apex transaction.
- c. **Allowed only in outer classes.**
- d. Allowed only in inner classed.
- e. **Excluded from the view state for a visualforce page.**

58. What are two considerations for converting a Lookup to a master detail relationship?

Choose 2 answer

- a. The Organization-wide default changes to Public Read/Write.
- b. All the null values in the Lookup Field will be replaced by default values.
- c. **If there are existing records with a null value in the Lookup field, an error will occur.**
- d. **The organization wide default changes to controlled by Parent.**

59. A developer wants to override a button using visualforce on an object.

What is the requirement?

- a. The object record must be instantiated in a controller or extension.
- b. **The standard Controller attribute must be set to the object.**
- c. The action attribute must be set to a controller method.
- d. The controller or extension must have a Page Reference method.

60. What should a developer use to post a message on chatter when a picklist field called status\_\_c on a custom object Application\_\_c is set to "Approved"?

- a. Use a workflow Rule and use the "Post to chatter" action when the record meets the criteria.
- b. Use connect API from Scheduled Apex.
- c. Use the streaming API to post to chatter.
- d. **Use process builder to post to chatter based on meeting the required criteria.**

61. A developer needs to avoid potential system problems that can arise in a multi-tenant architecture.

Which requirement helps prevent poorly written applications from being deployed to a production environment?

- a. All validation rules must be active before they can be deployed
- b. **Unit tests must cover at least 75% of the application's Apex code.**
- c. All Apex code must be annotated with the with sharing keyword.
- d. SOQL queries must reference Subject with their appropriate namespace.

62. A Visualforce page uses the Contact Standard Controller.

How can a developer display the Name from the parent account records on the page?

- a. **Use the `{! Contact.Account.Name}` merge field syntax.**
- b. Use SOQL syntax to find the related accounts Name field.
- c. Use additional Apex logic within the controller to query for the Name field.
- d. Use an additional Standard controller for accounts.

63. Which type of controller should a developer use to include a list of related records for a custom object record on a visualforce page without needing additional test coverage?

- a. Standard Controller
- b. List Controller
- c. **Controller Extension**
- d. Custom Controller

64. Universal Containers requires Service Representatives to update all cases at least once every three days. To make sure of this policy is obeyed, a developer has been asked to implement a field that display the number of days since the last case update.

What should the developer use to configure the solution?

- a. Workflow rule
- b. **Formula field**
- c. Process Builder
- d. Scheduled Apex Class

65. What are two uses for External IDS?

Choose 2 answer

- a. To Create relationships between records imported from an external system
- b. To identify the subject type in salesforce
- c. **To prevent an import from creating duplicate records using Upsert**
- d. **To create a record in a development environment with the same salesforce ID as in another environment**