

Software for Mobile Devices

039)

Instructor(s):

ad Salman

Final Examination

Total Time (Hrs): 1:15

Total Marks: 70

Total Questions: 5

Date: May 24, 2025

Course Section

Student Signature

write below this line.

Attempt all the questions.

Students are permitted to bring one handwritten cheat sheet of exact A4 size (both sides). Please ensure that the sheet adheres to the specified dimensions neither smaller nor larger will be accepted as announced earlier in the GCR.

Android Build (write one liner answer)

[15 marks]

1. Write down the steps to generate apk and android Studio?

1. gradlew clean build
2. gradlew run build

2. What is the difference between Signed apk and Unsigned apk?

Signed apk → Verified. author's signature associated
Unsigned apk → Unverified. no info about author

3. What is the purpose of .jks file. What are the parameters you need to remember to reuse a jks file?

Has the dependencies in it. Can be used to setup dependencies when an application is added to a new location.

Q2: Code Versioning (write one liner answer)

[15 marks]

1. In which file you can set the version of the code?

android.gradle

Build.gradle

2. In case you forgot to change the version, what is the major issue you may face later on?

Incompatible dependencies/libraries. Build issues.

3. Is the application version displayed on the Google Play Store the same as the version defined in the source code? If not, explain the difference

Yes, given the source code is the production one.

Q3: Write a code to pick image from the gallery. Your code should return a Uri of the selected image. [10 marks]

```
// use on success listener to get image  
val image = startOnSuccessListener { } { Intent.pick_image }
```

```
imageBitmap = Bitmap(image) // assume some ex
imageUri = bitmapToUri(imageBitmap) // " " "
```

Q4: Write a code to get the latitude and longitude of the device

[20 marks]

// assuming permissions have been set in the android.manifest file

```
val locationProvider = new FusedLocationProvider()
val latitudeloc = locationProvider.getLocation()
log.d("latitude: " + loc[0] + " ; longitude: " + loc[1])
```

Q5: Write a webservice in Php that inputs a image stores it in a directory and returns its url.

[10 marks]

```
<php
// get image as blob via JSON
imageBlob = Get-Request( body )
imageBlob = parse( imageBlob )
// save image
dir = getDir( "C:/<path>" )
saveLoc = store-image( dir, imageBlob )
encode-json( saveLoc )
json-send( saveLoc )

! php >
```

Bonus [5 marks]

Share anything good about this course

1. Made me realize how little I ~~am~~ know.
2. Introduced me to different technologies such as Firebase, XAMPP, PHP, and introduced me to the world Android App Development.

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Question 1 [100 Marks]

Attempt Any 100 MCQs

1. Which flag should be used when the BroadcastReceiver is expected to receive broadcasts only from the same app?
 - A. RECEIVER_ENABLED
 - B. RECEIVER_PENDING
 - C. RECEIVER_INTERNAL
 - D. RECEIVER_NOT_EXPORTED
 - E. RECEIVER_VISIBLE
2. What must be done to avoid memory leaks when registering a BroadcastReceiver in an Activity?
 - A. Use a background thread
 - B. Register it globally
 - C. Do not unregister it
 - D. Unregister it in the onDestroy() method
 - E. Only use manifest receivers
3. What method is used to send a broadcast to all receivers in an undefined order?
 - A. sendOrderedBroadcast()
 - B. sendBroadcastWithPermissions()
 - C. sendBroadcast()
 - D. sendGlobalBroadcast()
 - E. sendParallelBroadcast()
4. What is the potential issue if a BroadcastReceiver is registered with an Activity context and not unregistered in time?
 - A. The receiver will stop working
 - B. The broadcast will not be received
 - C. The receiver will run on the wrong thread
 - D. It may cause a memory leak
 - E. It will automatically unregister after 10 minutes
5. Which of the following methods allows the receiver to influence the flow of a broadcast to other receivers?
 - A. sendOrderedBroadcast()
 - B. sendParallelBroadcast()
 - C. sendStickyBroadcast()
 - D. sendAsyncBroadcast()
 - E. sendContextualBroadcast()
6. Which method is called when an activity is first created?
 - A. onStart()
 - B. onResume()
 - C. onCreate()
 - D. onPause()
 - E. onDestroy()
7. What is the correct order of lifecycle methods when an activity is launched for the first time?
 - A. onStart() → onCreate() → onResume()
 - B. onResume() → onCreate() → onStart()
 - C. onCreate() → onResume() → onStart()
 - D. onCreate() → onStart() → onResume()
 - E. onStart() → onResume() → onCreate()
8. Which method is invoked when the activity is no longer visible to the user?
 - A. onPause()
 - B. onResume()
 - C. onStop()
 - D. onDestroy()
 - E. onCreate()
9. Which method is called when the activity is about to become visible?
 - A. onResume()
 - B. onStart()
 - C. onPause()
 - D. onCreate()
 - E. onStop()
10. Which method is used to release resources or save data before the activity is destroyed?
 - A. onPause()
 - B. onStop()
 - C. onResume()
 - D. onDestroy()
 - E. onStart()
11. What method is called when the activity comes to the foreground after being stopped?
 - A. onCreate()
 - B. onStart()
 - C. onResume()
 - D. onRestart()
 - E. onPause()
12. Which lifecycle method is typically used to start animations or initialize components that need to run while the activity is in the foreground?
 - A. onCreate()
 - B. onStart()
 - C. onResume()
 - D. onPause()
 - E. onStop()
13. Which method is called when the system is about to start resuming another activity?
 - A. onStop()
 - B. onPause()
 - C. onDestroy()
 - D. onResume()
 - E. onStart()
14. What is the typical use of the onPause() method?
 - A. To initialize components
 - B. To start animations
 - C. To commit unsaved changes
 - D. To destroy the activity
 - E. To create the activity
15. What is the primary purpose of an Android Service?
 - A. To provide a user interface for user interactions
 - B. To perform long-running operations in the background

- C. To handle UI rendering tasks
D. To manage database transactions
16. Which type of service allows components to bind to it for interaction?
A. Foreground Service
B. JobScheduler
☒ C. Bound Service
D. BroadcastReceiver
E. AlarmManager
17. Which method is used to start a service in Android?
A. initiateService(Intent)
B. bindService(Intent)
☒ C. startForegroundService(Intent)
☒ D. startService(Intent)
E. scheduleService(Intent)
18. What is the key characteristic of a Foreground Service?
☒ A. It runs only when the screen is on
☒ B. It runs silently in the background
☒ C. It displays a persistent notification to the user
☒ D. It requires Wi-Fi connection
☒ E. It doesn't support background execution
19. Which service is best suited for tasks that should be noticeable to the user, such as playing music?
A. Bound Service
B. Background Service
C. Foreground Service
D. Remote Service
E. Scheduled Service
20. What is the primary purpose of an Android Service?
A. To manage app permissions
B. To render complex Uis
C. To handle user input
☒ D. To perform long-running operations in the background
E. To control screen brightness
21. What is the default return type of onStartCommand()?
A. START_NOW
B. START_STICKY
C. START_REDELIVER_INTENT
D. START_NOT_STICKY
☒ E. START_IF_READY
22. How do you stop a running service in Android?
A. finishService()
B. destroyService()
C. stopSelf()
D. terminateService()
☒ E. stopService()
23. Which method is triggered when the service is terminated?
A. onStop()
B. onEnd()
☒ C. onPause()
24. Why is a persistent notification required for a Foreground Service?
A. To avoid asking for location
B. To improve app performance
C. To allow UI interaction
D. To keep the user informed of app status according to OS rules
☒ E. To prevent app crashes
25. Which layout arranges child elements vertically or horizontally?
A. RelativeLayout
B. FrameLayout
C. GridLayout
☒ D. ConstraintLayout
☒ E. LinearLayout
26. In a LinearLayout, what attribute defines whether the layout is vertical or horizontal?
A. layout_gravity
B. orientation
☒ C. layout_direction
☒ D. weight_sum
☒ E. android:orientation
27. Which layout allows positioning of child elements relative to each other or the parent?
A. LinearLayout
B. FrameLayout
C. TableLayout
☒ D. GridLayout
☒ E. RelativeLayout
28. Which widget is used to allow user text input?
☒ A. TextView
☒ B. Button
☒ C. ImageView
☒ D. CheckBox
☒ E. EditText
29. In RelativeLayout, which attribute positions a view below another view?
☒ A. android:layout_alignParentBottom
☒ B. android:layout_centerInParent
☒ C. android:layout_below
☒ D. android:layout_toLeftOf
☒ E. android:layout_above
30. What does the android:layout_weight attribute do in a LinearLayout?
☒ A. Controls text size
☒ B. Sets padding between views
☒ C. Defines how space is distributed
☒ D. Aligns views to parent
☒ E. Defines how space is distributed
31. Which widget is best for displaying an image?
☒ A. TextView
☒ B. Button
☒ C. Spinner
☒ D. RadioGroup
☒ E. ImageView

32. What is the default orientation of LinearLayout?

- ☒ A. Vertical
- ☐ B. Horizontal
- ☐ C. Diagonal
- ☐ D. Centered
- ☐ E. Horizontal

33. In RelativeLayout, how would you center a view horizontally?

- ☐ A. android:layout_alignParentRight
- ☒ B. android:layout_centerHorizontal
- ☐ C. android:layout_alignTop
- ☐ D. android:layout_margin
- ☐ E. android:layout_centerHorizontal

34. Which widget is used to trigger actions when tapped?

- ☐ A. TextView
- ☒ B. Button
- ☐ C. EditText
- ☐ D. ImageView
- ☐ E. Button

35. Which layout can use android:layout_weight for flexible resizing?

- ☐ A. RelativeLayout
- ☐ B. FrameLayout
- ☐ C. TableLayout
- ☐ D. GridLayout
- ☒ E. LinearLayout

36. Which widget is best used to display static text to users?

- ☐ A. EditText
- ☐ B. Button
- ☐ C. TextView
- ☐ D. Spinner
- ☒ E. TextView

37. In RelativeLayout, what does android:layout_alignParentTop="true" do?

- ☐ A. Aligns view to the top of its parent
- ☐ B. Centers view vertically
- ☐ C. Sets margin from top
- ☐ D. Aligns view to top of another view
- ☒ E. Aligns view to the top of its parent

38. What widget allows the user to select one item from a dropdown list?

- ☐ A. RadioGroup
- ☐ B. Spinner
- ☐ C. CheckBox
- ☐ D. ToggleButton
- ☒ E. Spinner

39. Which widget is used to display a list of checkable items?

- ☐ A. RadioButton
- ☐ B. TextView
- ☒ C. ListView
- ☐ D. CheckBox
- ☐ E. RecyclerView

40. Which layout is more suitable when views need to be arranged with specific positional relationships?

- ☒ A. GridLayout

- ☐ B. TableLayout
- ☐ C. LinearLayout
- ☐ D. FrameLayout
- ☒ E. RelativeLayout

41. What attribute sets the direction of LinearLayout to horizontal?

- ☐ A. android:gravity
- ☐ B. android:orientation="vertical"
- ☒ C. android:orientation="horizontal"
- ☐ D. android:direction
- ☐ E. android:orientation="horizontal"

42. Which widget allows only one option to be selected from a group?

- ☐ A. CheckBox
- ☐ B. Spinner
- ☒ C. RadioGroup
- ☐ D. ListView
- ☐ E. RadioGroup

43. Which layout is best suited for evenly dividing screen space among children?

- ☐ A. RelativeLayout
- ☐ B. FrameLayout
- ☐ C. GridLayout
- ☐ D. ConstraintLayout
- ☒ E. LinearLayout (with layout_weight)

44. In RelativeLayout, which attribute aligns a view to the right of another view?

- ☐ A. android:layout_below
- ☐ B. android:layout_alignParentEnd
- ☒ C. android:layout_toRightOf
- ☐ D. android:layout_marginStart
- ☐ E. android:layout_toRightOf

45. In LinearLayout, what does android:gravity="center" do?

- ☐ A. Sets weight to center
- ☐ B. Aligns children in the center of the layout
- ☐ C. Applies margin to center
- ☐ D. Sets orientation to center
- ☒ E. Aligns children in the center of the layout

46. What is the use of RadioButton in Android UI?

- ☐ A. To display images
- ☐ B. To enter text
- ☐ C. To select multiple options
- ☐ D. To select a single option in a group
- ☒ E. To select a single option in a group

47. Which widget is used for toggling between two states like ON/OFF?

- ☐ A. Spinner
- ☒ B. ToggleButton
- ☐ C. RadioButton
- ☐ D. EditText
- ☐ E. ToggleButton

48. Which layout is not suitable for overlapping elements?

- ☐ A. FrameLayout
- ☐ B. RelativeLayout
- ☐ C. TextView

- D. ConstraintLayout
☒ E. LinearLayout
49. In Flask, which decorator is used to define an API route?
 A. @flask.route
 B. @route.api
 C. @app.endpoint
 D. @app.route
☒ E. @api.route
50. Which Flask function is used to return a JSON response to an Android app?
☒ A. jsonify()
 B. to_json()
 C. response.json()
 D. return_json()
 E. make_response_json()
51. What is the default port on which a Flask development server runs?
☒ A. 5000
 B. 8000
 C. 3000
 D. 8080
 E. 8888
52. Which of the following libraries is typically used on the Android side to make HTTP requests to a Flask API?
☒ A. Volley
 B. Retrofit
 C. OkHttp
 D. HttpURLConnection
 E. All of the above
53. What is the primary purpose of RecyclerView in Android?
☒ A. Display a single view
☒ B. Manage fragments
☒ C. Display a list of items efficiently
☒ D. Store user data
☒ E. Handle permissions
54. Which class acts as a bridge between RecyclerView and the data?
 A. RecyclerViewLayout
 B. ViewBinder
☒ C. Adapter
 D. RecyclerViewConnector
 E. ListModel
55. What method binds data to the views in RecyclerView?
☒ A. bindDataToView
☒ B. attachData
☒ C. onBindViewHolder
☒ D. populateView
☒ E. viewDataBinder
56. What layout manager is used to display items vertically in a list?
 A. GridLayoutManager
 B. StaggeredLayoutManager
☒ C. LinearLayoutManager
- D. FrameLayoutManager
 E. VerticalLayoutManager
57. How can you detect clicks on RecyclerView items?
 A. setOnItemClickListener
 B. clickHandler
 C. Implement click listener in ViewHolder
 D. onTouchItem
 E. itemClickManager
58. Which RecyclerView method sets the adapter?
 A. assignAdapter()
 B. configureAdapter()
 C. bindAdapter()
 D. setAdapter()
 E. attachAdapter()
59. Which method returns the total number of items in the Adapter?
☒ A. getItemSize()
☒ B. fetchItemCount()
☒ C. getItemCount()
☒ D. totalCount()
☒ E. countItems()
60. Which class is used to represent each item in the RecyclerView?
☒ A. RecyclerViewItem
☒ B. ViewHolder
☒ C. AdapterView
☒ D. RecyclerViewCard
☒ E. DataBinder
61. How do you refresh a specific item in RecyclerView?
 A. notifyDataSetChanged()
 B. reloadItems()
☒ C. notifyAll()
☒ D. notifyItemChanged(position)
☒ E. updateItem(position)
62. Which method inflates the layout in onCreateViewHolder?
 A. LayoutInflater.from(parent.context)
 B. View.inflate(context, R.layout.item, null)
 C. context.inflate()
 D. LayoutInflater.from(parent.context).inflate(R.layout.item, parent, false)
 E. new View(parent.context)
63. What is Jetpack Compose primarily used for?
☒ A. Data storage
☒ B. Networking
☒ C. UI Development
☒ D. Image processing
☒ E. Background services
64. What is the entry point function in a Jetpack Compose application?
 A. start()
 B. launchApp()
 C. onCreate()
 D. setContent()
 E. render()

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65. Which annotation is used to define a composable function?
- ☐ A. @Composable
 - ☐ B. @ComposeUI
 - ☐ C. @ComposeFunction
 - ☐ D. @JetpackUI
 - ☐ E. @Component
66. Which of the following is a layout composable in Jetpack Compose?
- ☐ A. TextView
 - ☐ B. LinearLayout
 - ☐ C. Row
 - ☐ D. ConstraintLayoutCompat
 - ☐ E. ListView
67. Which function is used to display text in Jetpack Compose?
- ☐ A. TextBox()
 - ☐ B. ShowText()
 - ☐ C. DisplayText()
 - ☐ D. Text()
 - ☐ E. WriteText()
68. Which Jetpack Compose component is used for lazy loading lists?
- ☐ A. RecyclerView
 - ☐ B. ListView
 - ☐ C. Column
 - ☐ D. LazyColumn
 - ☐ E. ScrollView
69. What does Modifier in Jetpack Compose help with?
- ☐ A. Logging errors
 - ☐ B. Writing XML
 - ☐ C. Handling permissions
 - ☐ D. Styling and layout behavior of UI components
 - ☐ E. Creating activities
70. Which method is used to create a new user with email and password in Firebase Authentication using Kotlin?
- ☐ A. FirebaseAuth.signInUser(email, password)
 - ☐ B. FirebaseAuth.createAccount(email, password)
 - ☐ C. FirebaseAuth.getInstance().signInWithEmailAndPassword(email, password)
 - ☒ D. FirebaseAuth.getInstance().createUserWithEmailAndPassword(email, password)
 - ☐ E. FirebaseAuth.newUser(email, password)
71. How do you check if a user is currently signed in with Firebase Authentication in Kotlin?
- ☐ A. FirebaseAuth.getInstance().getUser()
 - ☒ B. FirebaseAuth.getInstance().currentUser != null
 - ☐ C. FirebaseAuth.getInstance().isLoggedIn()
 - ☐ D. FirebaseAuth.isSignedIn()
 - ☐ E. FirebaseAuth.getCurrentUser() != null
72. Which method is used to sign out the current user in Firebase Authentication?
- ☐ A. FirebaseAuth.getInstance().logout()
 - ☐ B. FirebaseAuth.getInstance().clearSession()
73. Which method is used to read data once from a specific path in Firebase Realtime Database?
- ☐ A. addValueEventListener()
 - ☐ B. addChildEventListener()
 - ☐ C. getValueOnce()
 - ☐ D. addListenerForSingleValueEvent()
 - ☐ E. readData()
74. What is the typical data format exchanged between a mobile app and a PHP API?
- ☐ A. XML
 - ☒ B. JSON
 - ☐ C. CSV
 - ☐ D. HTML
 - ☐ E. SQL
75. Which PHP function is used to convert an array into a JSON string?
- ☐ A. json_parse()
 - ☐ B. array_to_json()
 - ☐ C. json_encode()
 - ☒ D. encode_json()
 - ☐ E. json_export()
76. What response code should a PHP API return when a request is successful?
- ☐ A. 404
 - ☐ B. 500
 - ☐ C. 403
 - ☒ D. 200
 - ☐ E. 301
77. What is Volley primarily used for in Android development?
- ☐ A. Playing multimedia files
 - ☐ B. Accessing device sensors
 - ☒ C. Making network requests to web APIs
 - ☐ D. Managing local database
 - ☐ E. Rendering UI components
78. Which class in Volley is used to queue network requests?
- ☐ A. NetworkManager
 - ☐ B. RequestHandler
 - ☐ C. WebQueue
 - ☒ D. RequestQueue
 - ☐ E. HttpQueue
79. What is the purpose of a StringRequest in Volley?
- ☐ A. To upload files
 - ☐ B. To parse JSON data
 - ☐ C. To download images
 - ☒ D. To send and receive plain text or string-based responses
 - ☐ E. To handle WebSocket communication
80. What is the main class used to request location updates using the Fused Location Provider in Android?
- ☐ A. LocationRequestBuilder
 - ☒ B. FusedLocationClient

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- C. LocationManager
D. LocationProviderClient
E. LocationServiceHelper
81. What permission is mandatory to access location using Fused Location Provider?
A. android.permission.ACCESS_NETWORK_STATE
B. android.permission.READ_PHONE_STATE
C. android.permission.ACCESS_WIFI_STATE
D. android.permission.ACCESS_LOCATION
E. android.permission.ACCESS_FINE_LOCATION
82. Which method is used to retrieve a SharedPreferences instance in Android?
A. getSharedInstance()
B. getPreferences()
C. getSharedPreferences()
D. getPrefs()
E. getEditorPreferences()
83. What is the correct way to begin editing SharedPreferences in Kotlin?
A. preferences.startEdit()
B. preferences.editor()
C. preferences.getEditor()
D. preferences.edit()
E. preferences.modify()
84. How do you save changes made using SharedPreferences.Editor in Kotlin?
A. applyChanges()
B. submit()
C. commitNow()
D. apply()
E. flush()
85. What is the return type of getSharedPreferences() in Android?
A. Editor
B. Context
C. SharedPreferences
D. SharedPrefsManager
E. StorageHandler
86. Which class is commonly used to create and manage SQLite databases in Android Kotlin?
A. Cursor
B. SQLiteOpenHelper
C. SQLiteDatabaseHelper
D. DatabaseManager
E. DataHelper
87. Which method is called when the database is created for the first time?
A. onUpdate()
B. onOpen()
C. onCreate()
D. onUpgrade()
E. onStart()
88. What method is used to get a writable SQLite database instance?
A. getReadableDatabase()
B. getWritableDatabase()
C. openDatabase()
D. getDatabase()
E. openWritableDatabase()
89. How do you insert data into an SQLite database in Kotlin?
A. db.update()
B. db.select()
C. db.put()
D. db.insert()
E. db.delete()
90. What is the type of object returned when you query data from SQLite?
A. List
B. Array
C. Cursor
D. ResultSet
E. DataSet
91. Which SQL command is used to create a table?
A. MAKE TABLE
B. CREATE TABLE
C. ADD TABLE
D. INSERT TABLE
E. NEW TABLE
92. To update a record in SQLite, which method do you use?
A. exchange()
B. modify()
C. update()
D. alter()
E. change()
93. Which method is called when upgrading the database version?
A. onOpen()
B. onCreate()
C. onUpgrade()
D. onUpdate()
E. onClose()
94. What does ContentValues represent in SQLite operations?
A. SQL commands
B. Query results
C. Key-value pairs for column values
D. Table names
E. Cursor data
95. Which SQLite data type is used to store text?
A. INT
B. FLOAT
C. TEXT
D. BLOB
E. CHAR
96. What is the primary key constraint used for in SQLite?
A. To sort data

- B. To allow null values
- ☒ C. To uniquely identify each record
- D. To create indexes
- E. To store large objects

- D. Runs tests
- E. Generates documentation

97. Which Kotlin class helps in handling SQLite database operations?

- A. SQLiteManager
- ☒ B. SQLiteOpenHelper
- C. DBHelper
- D. SQLManager
- E. DatabaseHelper

98. Which SQLite method allows running raw SQL queries?

- A. execSQL()
- ☒ B. rawQuery()
- C. execute()
- D. runSQL()
- E. query()

99. What does the method moveToFirst() do in a Cursor?

- A. Moves cursor to last row
- B. Moves cursor to next row
- ☒ C. Moves cursor to the first row
- D. Closes the cursor
- E. Resets the cursor

100. What method do you use to get the value of a column from a Cursor?

- A. getValue()
- B. getString() / getInt() / getFloat()
- C. getData()
- D. fetch()
- E. getColumn()

101. How to define a database version in SQLiteOpenHelper constructor?

- A. As a string
- B. As a float
- C. As an integer
- D. As a boolean
- E. As a long

102. What is Gradle primarily used for in Android development?

- ☒ A. Writing UI layouts
- ☒ B. Building and managing project dependencies
- C. Designing databases
- D. Debugging applications
- E. Managing app permissions

103. Which command is used to sync the Gradle files in Android Studio?

- A. Run Project
- B. Sync Project with Gradle Files
- C. Build APK
- D. Clean Project
- E. Rebuild Project

104. What does the clean Gradle task do?

- A. Compiles the project
- B. Builds the APK
- C. Deletes build outputs (build folders)

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| Q No | Correct |
|----------------|---------|
| smd – Section1 | |
| 1 | D |
| 2 | D |
| 3 | C |
| 4 | D |
| 5 | A |
| 6 | C |
| 7 | D |
| 8 | C |
| 9 | B |
| 10 | D |
| 11 | D |
| 12 | C |
| 13 | B |
| 14 | C |
| 15 | B |
| 16 | A |
| 17 | D |
| 18 | C |
| 19 | C |
| 20 | D |
| 21 | D |
| 22 | E |
| 23 | D |
| 24 | D |
| 25 | E |
| 26 | E |
| 27 | E |
| 28 | E |
| 29 | E |
| 30 | E |
| 31 | E |
| 32 | B,E |
| 33 | B,E |
| 34 | B,E |
| 35 | E |
| 36 | C,E |
| 37 | A,E |
| 38 | B,E |
| 39 | D |
| 40 | E |
| 41 | C,E |
| 42 | C,E |
| 43 | E |
| 44 | C,E |
| 45 | B,E |
| 46 | D,E |
| 47 | B,E |
| 48 | E |
| 49 | D |
| 50 | A |
| 51 | A |
| 52 | E |

| Q No | Correct |
|------|---------|
| 53 | C |
| 54 | C |
| 55 | C |
| 56 | C |
| 57 | C |
| 58 | D |
| 59 | C |
| 60 | B |
| 61 | D |
| 62 | D |
| 63 | C |
| 64 | D |
| 65 | A |
| 66 | C |
| 67 | D |
| 68 | D |
| 69 | D |
| 70 | D |
| 71 | B |
| 72 | C |
| 73 | D |
| 74 | B |
| 75 | C |
| 76 | D |
| 77 | C |
| 78 | D |
| 79 | D |
| 80 | B |
| 81 | E |
| 82 | C |
| 83 | D |
| 84 | D |
| 85 | C |
| 86 | B |
| 87 | C |
| 88 | B |
| 89 | D |
| 90 | C |
| 91 | B |
| 92 | C |
| 93 | C |
| 94 | C |
| 95 | C |
| 96 | C |
| 97 | B |
| 98 | B |
| 99 | C |
| 100 | B |
| 101 | C |
| 102 | B |
| 103 | B |
| 104 | C |