B.Tech. DEGREE EXAMINATION, DECEMBER 2017
Third/ Fourth/ Fifth Semester

15IT324E – MOBILE APPLICATION DEVELOPMENT
(For the candidates admitted during the academic year 2015 – 2016 onwards)

Note:
(i) **Part - A** should be answered in OMR sheet within first 45 minutes and OMR sheet should be handed over to hall invigilator at the end of 45ᵗʰ minute.
(ii) **Part - B** and **Part - C** should be answered in answer booklet.

Time: Three Hours

Max. Marks: 100

PART – A (20 × 1 = 20 Marks)
Answer ALL Questions

1. What is the purpose of ADB in android SDK?
   (A) It's a tool for packing apk
   (B) It's a tool to run apk in to emulator or connected device
   (C) It's a tool to optimize the apk
   (D) It's a tool for testing and debugging the application

2. What is the purpose of SDK-build tools
   (A) To build the application and generate apk
   (B) To monitor building process for deploying applications
   (C) To build application for other platforms form android code
   (D) To build application to run in windows platform

3. What is the API level for the android version Nought?
   (A) API 21
   (B) API 22
   (C) API 23
   (D) API 24

4. Which view is added to android platform from lollipop version?
   (A) Recycle view
   (B) List view
   (C) Data picker view
   (D) Autocomplete text view

5. Which one of the following is not a part of intent filter parameter?
   (A) Action
   (B) Data
   (C) Content
   (D) Category

6. Which is the current default layout in android studio recommended for UI design?
   (A) Relative layout
   (B) Linear layout
   (C) Constraint layout
   (D) Absolute layout

7. Shared preference stores data in _____.
   (A) Key-value pair in XML file
   (B) User in build SQlite database
   (C) User random access file
   (D) User firebase database

8. In which method UI views needs to be inflated in fragment?
   (A) On reate ( )
   (B) OnView ( )
   (C) OnAttach ( )
   (D) OnCreateView ( )

06DA3/4/515IT324E

9. Content providers in android are used for the purpose of
   (A) Setting the properties of app while installation
   (B) Contents generated while running the app are presented in file
   (C) Content to be shared across other applications
   (D) Contents to be uploaded into cloud database

10. The contents of the 'res' folder such as layout XML are referred in source file
    (A) Main activity. Java
    (B) R.java
    (C) res.Java
    (D) RA. Java

11. In which method of Async Task long time running code should be put into?
    (A) On pre execute ( )
    (B) On post execute ( )
    (C) Do in background ( )
    (D) Execute ( )

12. When should we use services in android?
    (A) When we need high performance code in android
    (B) When we want app size to be reduced in your app
    (C) When we want long running task to be run in your app
    (D) Improve security in your app

13. Mention the usage of Pending Intent in android programming
    (A) It is used to complete pending task in android
    (B) It can intent to send to other application component to use it
    (C) It can be used for calculation pending background task to completes
    (D) It can be used for removing pending background tasks to be executed

14. Which one of these is an adapter view?
    (A) Date picker view
    (B) List view
    (C) Button view
    (D) Radio button view

15. Where will you get Google maps API key?
    (A) By registering in Google play store for your project
    (B) In the Google map library of your maps project
    (C) In the android studio IDE gradle project
    (D) In the Google developers console by registering application project

16. Drivers for android platforms are installed in
    (A) Android library
    (B) In Dalvik VM
    (C) In linux kernel
    (D) Along with application components

17. To access resources of your mobile by an app it needs
    (A) Permission enteries in layout.xml file
    (B) Permission enteries in asset folder XML files
    (C) Permission enteries in android manitext. xml file
    (D) Permission enterie in R.Java file

18. We can kill an activity through the code by calling _____ method.
    (A) Ondestroy ( )
    (B) Finishactivity ( )
    (C) Finish ( )
    (D) Onstop ( )

19. Which class is responsible in android framework for managing sensors in programm?
    (A) SensorManager
    (B) LocationManager
    (C) SensorListener
    (D) SystemManager

20. What does density-independent pixels (dp) refer to?
    (A) Uniform display of UI elements onscreen with different densities
    (B) Uniform display of UI elements on screen with different screen size
    (C) Uniform display of UI elements onscreen with different color scheme
    (D) Uniform display of UI elements onscreen with different style themes

PART – B (5 × 4 = 20 Marks)
Answer ANY FIVE Questions

21. Write note on gradle build system in android studio and mention its key features.

22. What are the features of material design in android UI design? Brief it.

23. Write the differences between bounded and unbounded service.

24. With code snippets demonstrate the purpose of content providers in android (build-in type).

25. Write notes on acceleration sensor in mobile with code snippets of call back methods for identifying movement of phone.

26. Provide guidelines for designing better design for apps recommended by Google.

27. How to use location based API for fetching lattitude and longitude values into mobile? Demonstrate with code snippets.

PART – C (5 × 12 = 60 Marks)
Answer ALL Questions

28. a. Write an android java code only for a "Tips calculator". The code assumes UI components designed in layout XML file. The following are the components
    (i)   Text view
    (ii)   Edit text
    (iii) Seek bar
    (iv)   Button

When user enters value of money to be paid for expenses in edit text view and clicks the button, the program should calculate tips value to be paid by calculating the percentage (%) setting entry in seek bar and the numerical edit text value. Display the tips to be paid in text view. The formula is

$$\text{Tip value} = \text{total money} \times \frac{\text{tips}\%}{100}$$

(OR)

b. Demonstrate with a java coding and android manifest.xml entry for calling an activity of one application with an activity of another application with intent-filter fields in manitest file having enteries like
    (i)   Action
    (ii)   Category
    (iii) Data

29. a. Write in detail with diagram to explain architecture of android platform.

(OR)

b. Write notes on
   (i)   Resources in android app development
   (ii)   Android manifest.xml file
   Provide the purpose of each elements.

30. a. Write a android applications java code which takes name, phone and email from edit text. When a buttons is clicked all the values entered in the edit text fields will be stored in shared preference? Next time when the app opens the stored value is retrieved and displayed in same edit text filed with values previously entered.

(OR)

b. Write a android applications java code to add contact of a person into SQlite database and list it in list view. The contact detail should contain name and phone number.

31. a. Write the android program code in java to demonstrate usage of broadcast receiver and notification feature in android.

(OR)

b. Write a java code for android application which would download a text file from the internet and display the content in the text view of an activity.

32. a. Write down the steps for publishing the app in Google play store. Also provide guidelines for developing app and policies adopted by Google for publishing the app.

(OR)

b. Write notes on
   (i)   Sensor programming in android
   (ii)   Animations in material design.
   Demonstrate with-example code snippets.

* * * * *