DURATION: - 2½ hrs   84504424   MARKS:- 75

Note: - (1) All questions are compulsory.
        (2) Figures to the right indicate full marks
        (3) Answer to each question must being on a new page

Q.1)	**Answer the following questions (Any 4)**		**20M**
a)	Explain the data types of Kotlin	CO1-U	
b)	Write a short note on Kotlin operators	CO1-U	
c)	Explain the concept of exception handling	CO1-U	
d)	Write the steps to create android virtual device	CO2-A	
e)	Explain the concept of services	CO2-U	
f)	Write the steps to create & run first android application	CO2-A	
Q.2)	**Answer the following questions (Any 4)**		**20M**
a)	Explain the types of layouts in android	CO2-U	
b)	List and explain and ten UI controls available in android	CO3-U	
c)	Write a short note on ImageView	CO3-U	
d)	List and explain methods involved in android adaptor	CO3-U	
e)	Write a short note on screen orientation	CO3-U	
f)	Write a short note on SQLite database	CO4-U	
Q.3)	**Answer the following questions (Any 4)**		**20M**
a)	Write a short note on drawable	CO5-U	
b)	List and explain XML attributes used for animation	CO5-U	
c)	Discuss on Transform gestures	CO5-U	
d)	Write a short note on camera class	CO5-U	
e)	Explain signing application in Google app	CO5-U	
f)	Explain sending broadcaste in detail	CO5-U	
Q.4)	**Answer the following questions (Any 3)**		**15M**
a)	Describe 'For' loop with example	CO1-U	
b)	Write a short note on activity life cycle	CO1-U	
c)	Explain the term themes V/S styles	CO3-U	
d)	Write a short note on event handler	CO2-U	
e)	Write a short note on threads	CO4-U	
f)	Explain the services in android	CO5-U	

****