



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)
Dundigal, Hyderabad-500043

COMPUTER SCIENCE AND ENGINEERING

TUTORIAL QUESTION BANK

Course Title	MOBILE APPLICATIONS AND SERVICES				
Course Code	BCSB22				
Programme	M.Tech				
Semester	III	CSE			
Course Type	Programme Elective – V				
Regulation	IARE - R18				
Course Structure	Theory			Practical	
	Lectures	Tutorials	Credits	Laboratory	Credits
	3	-	3	-	-
Chief Coordinator	Ms. B. Vijaya Durga, Assistant Professor				
Course Faculty	Ms. B. Vijaya Durga, Assistant Professor				

COURSE OBJECTIVES:

The course should enable the students to:	
I	Understand the three main mobile platforms and their ecosystems, namely Android, iOS, and Phone Gap / Web OS and designing and develop mobile applications using a chosen application development framework
II	Explores emerging technologies and tools used to design and implement. The capabilities and limitations of mobile platforms that affect application development and deployment
III	Explore the techniques for deploying and testing mobile applications, and for enhancing their performance and scalability account of communications via network by wireless connectivity.
IV	Prepare mobile application for multimedia and learn about additional issue like security, hacking etc.,

COURSE OUTCOMES (COs):

CO1	Understand the mobile platforms and their ecosystems with frameworks, tools.
CO2	Understand more on mobile computing UIS and synchronization and replication of mobile data
CO3	Prepare a well -structured network connectivity and notifications with wireless connectivity.
CO4	Explore on various multimedia agents of architecture, models and design
CO5	Understand the security and hacking issues while active transactions in processed

COURSE LEARNING OUTCOMES (CLOs):

CLO Code	At the end of the course, the student will have the ability to
BCSB22.01	Understand the concept of mobile computing in terms of knowledge.
BCSB22.02	Analyze the frameworks and tools for Android development
BCSB22.03	Identify generic UI development Android user.
BCSB22.04	Estimate the VUIs and mobile apps of development
BCSB22.05	Identify the state machine, correct communications model, Android networking and web
BCSB22.06	Explain about the synchronization and replication of mobile data
BCSB22.07	Understand the database issues of Android applications
BCSB22.08	Classify the Android telephony notifications and alarms
BCSB22.09	Develop the Android field service app for runtime environment
BCSB22.10	Understand and develop packaging and deploying
BCSB22.11	Examine the performance best practices of applications
BCSB22.12	Apply the Android multimedia on additional issues
BCSB22.13	Differentiate the mobile agents and peer-to-peer architecture, Android multimedia
BCSB22.14	List out the platforms and additional issues like security, hacking
BCSB22.15	Understand active transactions and provide security from development hurdles

TUTORIAL QUESTION BANK

S. No	Questions	Blooms Taxonomy Level	Course Outcomes	Course Learning Outcome
UNIT – I				
INTRODUCTION TO MOBILE COMPUTING				
PART – A (SHORT ANSWER QUESTIONS)				
1	Define mobile computing?	Remember	CO 1	BCSB 22.01
2	Describe the development of mobile computing?	Remember	CO 1	BCSB 22.02
3	Define mobile communication?	Understand	CO 1	BCSB 22.01
4	Explain mobile hardware?	Remember	CO 1	BCSB 22.01
5	Explain mobile software?	Remember	CO 1	BCSB 22.01
6	Define Android ?	Remember	CO 1	BCSB 22.01
7	Explain a brief history of Android versions	Understand	CO 1	BCSB 22.02
8	Explain usage of Android application?	Remember	CO 1	BCSB 22.02
9	Draw a architecture of Android?	Remember	CO 1	BCSB 22.02
10	Explain about anatomy of an Android application?	Remember	CO 1	BCSB 22.02
PART – B (LONG ANSWER QUESTIONS)				
1	Explain about the mobile computing in terms of knowledge.	Understand	CO 1	BCSB22.01
2	Describe about the development of Android environment. Explain how its suitable to the current platform.	Understand	CO 1	BCSB22.01
3	Explain about the factors of mobile application development.	Remember	CO 1	BCSB22.01
4	Describe about the mobile software engineering with functional and non-functional requirements.	Understand	CO 1	BCSB22.01
5	Explain the use of mobile application development.	Understand	CO 1	BCSB22.01
6	Explain framework of mobile application development	Understand	CO 1	BCSB22.02
7	Discuss about tools of mobile application development with an suitable example	Remember	CO 1	BCSB22.02
8	Define Android user and explain about the generic UI development .	Understand	CO 1	BCSB22.02
9	List out the steps involved to develop a mobile applications.	Understand	CO 1	BCSB22.02
10	Define needs to develop a mobile software engineering. Explain how mobile software face challenges	Understand	CO 1	BCSB22.02
PART – C (ANALYTICAL QUESTIONS)				
1	Explain how mobile computing works with Android application.	Understand	CO 1	BCSB22.02
2	Discuss the structured layered architecture of an Android operating system	Analyze	CO 1	BCSB22.02
3	Discuss the manifest file in the Android application development	Remember	CO 1	BCSB22.02
4	Build and design Android application development for any communication data	Remember	CO 1	BCSB22.02
UNIT – II				
MOBILE COMPUTING -MORE ON UIS				
PART – A (SHORT ANSWER QUESTIONS)				
1	Define VUI ?	Remember	CO 2	BCSB22.03
2	What VUI represents in mobile application development?	Remember	CO 2	BCSB22.03
3	What is data storing ?	Remember	CO 2	BCSB22.03
4	How talk works in mobile app ?	Understand	CO 2	BCSB22.03
5	What is date retrieving ?	Understand	CO 2	BCSB22.03
6	Define VUI and UI ?	Understand	CO 2	BCSB22.03

7	Define Synchronization ?	Understand	CO 2	BCSB22.03
8	Define Replication ?	Remember	CO 2	BCSB22.03
9	What is an External Storage ?	Understand	CO 2	BCSB22.03
10	What is an Internal Storage ?	Understand	CO 2	BCSB22.03
11	Define Shared Preferences ?	Remember	CO 2	BCSB22.04
12	Explain Content Provider ?	Understand	CO 2	BCSB22.04
PART – B (LONG ANSWER QUESTIONS)				
1	What are the mobile apps and How they develop to communicate.	Understand	CO 2	BCSB22.04
2	Explain about VUIs and challenges of VUI.	Remember	CO 2	BCSB22.04
3	Explain how VUIs are designed.	Understand	CO 2	BCSB22.04
4	Explain text-to-speech techniques with examples?	Understand	CO 2	BCSB22.04
5	How to design a Right UI of mobile application development.	Analyze	CO 2	BCSB22.04
6	What are the difference between multichannel and multi model UIs?	Analyze	CO 2	BCSB22.04
7	Explain how data is store and retrieve from mobile data. What would result if data is lose.	Remember	CO 2	BCSB22.04
8	Describe synchronization and replication of mobile data. what are the security issues will face while active transactions	Understand	CO 2	BCSB22.03
9	Difference between synchronization and asynchronization of mobile data ?	Understand	CO 2	BCSB22.03
10	Explain the ways of storing data and retrieving a data. Justify the best way of them.	Remember	CO 2	BCSB22.04
11	How data is accessing and building a content provider. What would result if not have network connectivity	Understand	CO 2	BCSB22.04
PART – C (ANALYTICAL QUESTIONS)				
1	Explain how mobile data is storing and retrieving from Android application ?	Understand	CO 2	BCSB22.04
2	By using the file system, how data is storing in mobile data?	Understand	CO 2	BCSB22.04
3	Explain how SQLite database works in an Android application?	Remember	CO 2	BCSB22.04
UNIT-III NETWORK AND THE WEB:STATE MACHINE				
PART – A (SHORT ANSWER QUESTIONS)				
1	What is Alarm Activity	Understand	CO 3	BCSB22.06
2	How to send a Notification ?	Remember	CO 3	BCSB22.07
3	Explain Android network ?	Understand	CO 3	BCSB22.07
4	Define connection oriented network ?	Remember	CO 3	BCSB22.07
5	Define security in network ?	Understand	CO 3	BCSB22.06
6	What notification bar does ?	Understand	CO 3	BCSB22.06
7	Define multithreading ?	Understand	CO 3	BCSB22.06
8	Explain notification message ?	Understand	CO 3	BCSB22.06
9	Define connectionless oriented network ?	Analyze	CO 3	BCSB22.07
10	Explain graphics help in Android application?	Understand	CO 3	BCSB22.06
Part – B (Long Answer Questions)				
1	Explain how data communicates via network and the web ?	Understand	CO 3	BCSB22.07
2	Can you explain what is happening in correct communications model.	Understand	CO 3	BCSB22.07
3	Differentiate Android networking and web ?	Remember	CO 3	BCSB22.07
4	Design a secure network communication. Explain how it works.	Understand	CO 3	BCSB22.07
5	Explain how to connect devices wirelessly and transfers the data	Understand	CO 3	BCSB22.07

6	Explain how Android telephony notifications and alarms works	Remember	CO 3	BCSB22.08
7	Describe a notification manager in Android application. Explain how its displays on screen	Understand	CO 3	BCSB22.08
8	Explain performance of Android application of each platforms	Understand	CO 3	BCSB22.07
9	How memory is managed in Android application notifications ?	Remember	CO 3	BCSB22.07
10	Explain how graphics are used in mobile application with an suitable examples.	Analyze	CO 3	BCSB22.08
11	Explain the performance of multithreading in Android application with an associate example	Remember	CO 2	BCSB22.07
PART - C (ANALYTICAL QUESTIONS)				
1	Build a network for a device for communication to transfer the data ?	Understand	CO 3	BCSB22.07
2	Design an application by using graphics UIs ?	Understand	CO 3	BCSB22.08
3	Build a network wireless connection for device to transfer a data ?	Remember	CO 3	BCSB22.07
4	How to check security issues while storing and retrieving a mobile data. Explain how it troubles the data in an application	Understand	CO 3	BCSB22.07
UNIT-IV				
PUTTING IT ALL TOGETHER AND MULTIMEDIA				
PART – A (SHORT ANSWER QUESTIONS)				
1	Define packaging?	Remember	CO 4	BCSB22.09
2	List the roles of a handler in MVC based applications?	Understand	CO 4	BCSB22.09
3	Define deploying?	Remember	CO 4	BCSB22.09
4	Explain about mobile applications?	Remember	CO 4	BCSB22.09
5	Explain mobility in mobile application services?	Understand	CO 4	BCSB22.09
6	List the Android services?	Remember	CO 4	BCSB22.10
7	Explain the life cycle methods of interceptor?	Remember	CO 4	BCSB22.10
8	Define multimedia?	Understand	CO 4	BCSB22.10
9	Define Android multimedia?	Understand	CO 4	BCSB22.10
10	Define mobile agents?	Understand	CO 4	BCSB22.10
PART – B (LONG ANSWER QUESTIONS)				
1	Explain the packaging and deploying process in putting it all together process. Differentiate each	Understand	CO 4	BCSB22.10
2	Explain the performance best practices?	Understand	CO 4	BCSB22.10
3	Explain each and every field in Android field service app?	Remember	CO 4	BCSB22.10
4	Describe Android location mobility with an example	Understand	CO 4	BCSB22.10
5	Explain location based services Android. Explain how it identifies current location.	Remember	CO 4	BCSB22.10
6	Explain the multimedia types in mobile services?	Understand	CO 4	BCSB22.10
7	Define the following terms a. Multi Media b. Peer-To-Peer Architecture c. Mobile Agents	Understand	CO 4	BCSB22.10
8	Explain about Android multimedia?	Understand	CO 4	BCSB22.09
9	Explain performance best practices in Android location mobility. How its connects to GPS.	Remember	CO 4	BCSB22.10
10	Explain briefly different types of Android field service apps?	Understand	CO 4	BCSB22.10
PART - C (ANALYTICAL QUESTIONS)				
1	Explain real time packaging and deploying methods?	Understand	CO 4	BCSB22.10

2	List out the performances best practices to Android?	Understand	CO 4	BCSB22.10
3	Explain the Android field service app with a practical example?	Analyse	CO 4	BCSB22.10
4	Explain location mobility and list out Android location mobility's?	Understand	CO 4	BCSB22.10
5	Explain the features Android location mobility?	Understand	CO 4	BCSB22.10
6	Explain mobile Android multimedia with examples?	Understand	CO 4	BCSB22.09
7	Explain the different types of mobile agents?	Understand	CO 4	BCSB22.10
8	Explain the Android level peer to peer architecture?	Analyse	CO 4	BCSB22.09
9	Explain Android multimedia at platform level?	Understand	CO 4	BCSB22.09
10	Explain putting all together step by step process?	Understand	CO 4	BCSB22.10

**UNIT-V
PLATFORMS AND ADDITIONAL ISSUES ,SECURITY AND HACKING**

Part - A (Short Answer Questions)

1	Explain the platforms of mobile services applications?	Understand	CO 5	BCSB22.11
2	Explain additional issues in development process?	Understand	CO 5	BCSB22.11
3	Explain briefly development process in mobile service applications?	Understand	CO 5	BCSB22.11
4	Explain different architectural styles in mobile application architecture?	Understand	CO 5	BCSB22.11
5	Explain hurdles in platforms and designing?	Remember	CO 5	BCSB22.11
6	What is testing in mobile services applications?	Understand	CO 5	BCSB22.11
7	What are the security techniques in mobile applications?	Remember	CO 5	BCSB22.11
8	Explain hacking methods in mobile applications?	Understand	CO 5	BCSB22.12
9	Explain transactions?	Understand	CO 5	BCSB22.12
10	Explain hacking Android?	Understand	CO 5	BCSB22.12

Part – B (Long Answer Questions)

1	What are the platform and additional issues in mobile services?	Understand	CO 5	BCSB22.11
3	Explain platform development process stages?	Remember	CO 5	BCSB22.11
4	Discuss architectural styles and design styles in platform level?	Analyze	CO 5	BCSB22.11
5	Explain technological selection in mobile application services?	Understand	CO 5	BCSB22.12
6	Explain mobile app development hurdles? Explain how they are used in mobile platform level?	Understand	CO 5	BCSB22.12
7	Explain the following terms a. Hurdles b. Testing c. Security d. Hacking	Understand	CO 5	BCSB22.12
8	Explain the security system in mobile application services?	Remember	CO 5	BCSB22.12
9	Explain the hacking methods in mobile applications at platform level?	Understand	CO 5	BCSB22.12
10	Explain active transactions with additional issues in platforms	Remember	CO 5	BCSB22.12

PART – C (ANALYTICAL QUESTIONS)

1	Discuss about real version design models?	Understand	CO 5	BCSB22.12
2	Explain about platform architectural communication?	Remember	CO 5	BCSB22.11
3	Explain the web hacking with an live example?	Understand	CO 5	BCSB22.12
4	Explain about Android hacking real time examples?	Understand	CO 5	BCSB22.11

5	Discuss security implementation mode.	Understand	CO 5	BCSB22.12
6	Create the process of Hurdles which will get in active transactions.	Remember	CO 5	BCSB22.11
7	Explain real time encryption while transferring the data	Understand	CO 5	BCSB22.12
8	Discuss about Android security in an application	Remember	CO 5	BCSB22.12
9	Explain about active transactions in Android series?	Understand	CO 5	BCSB22.12
10	Explain briefly which security models are supported for Android hacking?	Understand	CO 5	BCSB22.12

Prepared by:

Ms. B. Vijaya Durga, Assistant Professor

HOD, CSE