

**B.TECH.**  
**(SEM VII) THEORY EXAMINATION 2022-23**  
**DESIGN & DEVELOPMENT OF APPLICATIONS**

**Time: 3 Hours****Total Marks: 100****Note:** Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A**

**1. Attempt all questions in brief. 2 x 10 = 20**

- (a) What are useful ways the Mobile Application Validation?
- (b) Explain what are Real Time Embedded Systems?
- (c) What is an Embedded Operating System?
- (d) What are the various issues related with embedded system design?
- (e) What do you mean by Hosting of an application in a cloud computing environment?
- (f) Differentiate IaaS, PaaS, SaaS with reference to cloud computing.
- (g) Is it possible to add notes to a saved Google Map?
- (h) How GPS works?
- (i) Name some important Data types found in objective –C.
- (j) What is iBeacon?

**SECTION B**

**2. Attempt any three of the following: 10 x3 = 30**

- (a) What are the various steps to publish a mobile application after development?
- (b) With the help of suitable example explain Android Gestures and Touch Events.
- (c) What is GPS? Why GPS is so important with reference to social media applications?
- (d) What is Location Based Service & How does it work?
- (e) How to build a Location based app that goes way beyond GPS in iOS.

**SECTION C**

**3. Attempt any one part of the following: 10 x1 = 10**

- (a) How Input/Output devices are classified for embedded systems?
- (b) What are the different stages to validate a Mobile Application Development?

**4. Attempt any one part of the following: 10 x1 = 10**

- (a) What are the various issues related with Embedded System Design?
- (b) How many layers are there in Mobile Application Architecture? Explain each layer in detail.

**5. Attempt any one part of the following: 10 x1 = 10**

- (a) What are the different quality parameters to be considered while designing user interface?
- (b) Compare major mobile app development techniques in detail?

6. Attempt any *one* part of the following:

10 x1 = 10

- (a) Write History of Android Operating System and with the help of suitable diagram explain architecture of Android Operating System.
- (b) Why Data Persistence is important? How we can implement SQLite in a flutter?

7. Attempt any *one* part of the following:

10 x1 = 10

- (a) How to integrate the Address Book and Calendar with social media application? Discuss with an example.
- (b) Explain iOS App States & What are the options for laying out UI on iOS?

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