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Paper Id: 2 3 1 3 5 4   **Roll No.** [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]

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?