Roll No……..….. **Total No. of Printed Pages: 1**

Total No. of Questions: [09]

B. Tech. (CSE) (Semester –6th/7th)

ANDROID BASED OPERATING SYSTEMS

Subject Code: BECEO1006

Paper ID: [18OE111127]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:

a Define direct memory access (DMA).

b Define interrupt in the context of computer systems.

c Describe the action bar in Android and its significance.

d What is cache memory, and why is it important?

e Describe the role of the operating system.

f Name two functions of an operating system.

g What is the Android SDK?

h List the key features of Android.

i Explain the purpose of an Android Virtual Device (AVD).

j What is the difference between HTTP and JSON services in Android networking?

Section – B **(5 marks each)**

Q2. Explain the memory hierarchy in a computer system and its impact on performance.

Q3. Explain the evolution of operating systems and how they have changed over time.

Q4. Describe the architecture of Android and its key components.

Q5. Discuss the methods for managing changes to screen orientation in an Android application.

Q6. Explain the importance of location-based services in Android applications, with examples of their usage.

Section – C **(10 marks each)**

Q7. Provide a detailed overview of the operating system structure and its operations, including system calls and system programs.

Q8. Create a step-by-step guide for developing your first Android application, detailing the tools and processes involved.

Q9. Explain the concept of multiprocessor and multicore organization in modern computer systems. How do they improve system performance?