2604E228 Candidate's Seat No :_____

Integ. MSc CSF Semester-2 (NEP) Examination
DSC-M-ICSF-123 (T)-EA
Fundamental of Mobiles OS-Android

Time : 1-00 Hours] April-2024 [Max. Marks : 25

Instructions: Illustrate your answers with neat diagrams wherever necessary.

Que 1 Write the following

   (i) What is Android OS? And explain its features. (5 Marks)

   (ii) Explain ARM Processor and explain its features. (5 Marks)

OR

   (i) Give difference between IOS and Android OS. (5 Marks)

   (ii) Explain Android Architecture with labelled diagram. (5 Marks)

Que 2 Write the following

   (i) What is Activity? Explain its characteristics. (5 Marks)

   (ii) Give detail explanation about important Android project files. (5 Marks)

OR

   (i) Explain Improper Credential Usage, Inadequate Supply Chain Security, Insecure (5 Marks) Authentication, Insufficient Input/Output Validation, Insecure Communication vulnerabilities in detail.

   (ii) Explain Android Development Tools in detail. (5 Marks)

Que 3 Attempt any five out of six. (5 Marks)

(i)   A _____ of execution is the smallest sequence of programmed instructions that can be managed independently by a scheduler.

(ii)   What distinguishes a privileged app in Android development?

a) It is exclusively built using Android APIs and is readily available for user installation from app stores.
b) It undergoes rigorous testing and certification processes by Google before being made available for download.
c) It is developed utilizing a combination of Android and system APIs and must be preinstalled on a device.
d) It is designed to run autonomously without requiring any dependencies on system-level functionalities.

(iii)   _____ is a Java runtime environment provided by Android Open System Platform.

(iv)   Native libraries interact directly with the kernel or other interfaces and don't depend on a userspace-based HAL implementation. (True/False)

(v)   What is the function of Resource Manager in Java API framework?

(vi)   What is function of onResume() callback?

_L P. T. O_

Integrated M.Sc. Cybersecurity & Forensics Semester- 2 (External)
DSC-M-ICSF-123T - EB
Fundamentals of Operating System - IOS

Duration: 60 min   Total Max. 25

Instructions: Illustrate your answers with neat diagrams wherever necessary.

Que 1   Write the following

(i)   What are the security and privacy features of Apple iOS?   (5 Marks)

(ii)   Give difference between IOS 16 and IOS 17.   (5 Marks)

OR

(i)   Explain the architecture of IOS with a diagram.   (5 Marks)

(ii)   Explain Android Architecture with labelled diagram.   (5 Marks)

Que 2   Write the following

(i)   Write an Algorithm in swift programming to perform different data types.   (5 Marks)

(ii)   Which function can be used to append the strings in swift programming in IOS.   (5 Marks)

OR

(i)   Explain different functions used in strings in swift programming in IOS.   (5 Marks)

(ii)   Write an Algorithm in swift programming to perform different mathematical   (5 Marks)
       operations.

Que 3   Attempt any five out of six   (05
                                                                              Marks)

(i)   Define framework.

(ii)   _____was updated to add home, car, and office keys to unlock doors with
        compatible HomeKit door locks, uploading personal identification and adding
        multiple passes at once.

(iii)   iOS 13 was released on_____.

(iv)   iOS 16 is compatible with iPhone _____. iPad OS 16 is compatible with iPad
        _____or later.

(v)   iOS 17 is compatible with iPhone_____.

(vi)   Two Difference between IOS 16 and IOS 17.