

Seat No.: \_\_\_\_\_

Enrolment No. 2036

**NATIONAL FORENSIC SCIENCES UNIVERSITY**  
M.Sc. Cyber Security - Semester - II - July-2023

Subject Code: CTMSCS SII P3  
Subject Name: Mobile Security  
Time: 11:00 AM to 2:00 PM

Date: 12/07/2023

Total Marks: 100

**Instructions:**

1. Write down each question on a separate page.
2. Figures to the right indicate full marks.

Marks  
24

**Q.1 Attempt Any 3 Questions (8 Marks each)**

- (a) Explain Android Architecture in detail.
- (b) What is Application Sandboxing? Explain Secure IPC.
- (c) What is ADB? Explain ADB Commands with example
- (d) What is DVM? Explain execution of DVM with the comparison of JVM

24

**Q.2 Attempt Any 3 Questions (8 Marks each)**

- (a) Explain Android Boot Process in Detail.
- (b) What is the use of Android Manifest? What we can write into Manifest file. Explain it with example of Manifest file.
- (c) List OWASP Top-10 vulnerabilities for Mobiles. Explain any three vulnerabilities in details.
- (d) What is the use of JADX, JDGUI and DexDump Reverse Engineering

24

**Q.3 Attempt Any 3 Questions (8 Marks each)**

- (a) What is App Permission? Write a steps to request the permission.
- (b) Explain Mobile Application Security Pen-Testing Strategy
- (c) What is Reverse Engineering? Explain it using APK Tool
- (d) What is Intent? Explain types of Intent with example.

14

**Q.4 Attempt Any 2 Questions (7 Marks each)**

- (a) Explain MobSF (Mobile Security Framework) in detail?
- (b) Explain Security Auditing with Drozer.
- (c) Explain QARK with features, advantage, modes, pros and cons.

14

**Q.5 Attempt Any 2 Questions (7 Marks each)**

- (a) What is Android Traffic Interception. Explain ways to analyze the Android traffic.
- (b) Explain Dynamic Instrumentation using Frida with commands.
- (c) Explain step by step Active Analysis of Android Traffic using Burp Suite.

END OF PAPER