NATIONAL FORENSIC SCIENCES UNIVERSITY
M.Sc. Cyber Security - Semester - II - Aug-2022

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

Date: 03/08/2022

Instructions:
1. Write down each question on a separate page.
2. Attempt all questions.
3. Make suitable assumptions wherever necessary.
4. Figures to the right indicate full marks.

Total Marks: 100

			Marks
Q1	(a)	Write the ADB commands?	
	(b)	Write short notes on android content provider?	05
	(c)	Explain insecure logging and hardcoding issues?	05
Q2	(a)	Explain Android Manifest file with example?	05
	(b)	Write short notes on reverse engineering in android applications?	05
			05

Q.3 Attempt Any 2 Questions (7 Marks each)
- (a) Explain the android application architecture?
- (b) Explain MobSF (Mobile Security Framework) in detail?   **14**
- (c) Explain the Android application security vulnerability assessment using QARK?

Q4 Attempt Any 3 Questions (7 Marks each)
- (a) Explain Android Boot Process in Detail?
- (b) Differentiate Static Analysis Vs Dynamic Analysis?   **21**
- (c) Explain Security Auditing with Drozer?
- (d) Explain Mobile Application Security Pen-Testing Strategy?

Q5 Attempt Any 2 Questions (8 Marks each)
- (a) Explain OWASP Top-10 vulnerabilities for Mobiles?   **16**
- (b) What is application permission? List types of permission. Write a step to request permission.
- (c) Explain the Frida and Objection framework for android dynamic instrumentation?

Q6 Attempt Any 3 Questions (8 Marks each)
- (a) Explain Jadax, Jdgui, and Dexdump reverse engineering process?
- (b) Explain Android Partitions and File Systems?   **24**
- (c) Explain inter-process communication of android applications?
- (d) Explain android traffic passive analysis and active analysis?

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