

IMBA (CSM) (NEP) Sem.-3 Examination

SEC-ICSM-236

Assembling & Configuration of Mobile Hardware

Time : 1-00 Hour]

November-2025

[Max. Marks : 25

Question 1: Answer the following questions:

- i. List and describe the essential tools and safety equipment required for mobile hardware assembly. How do ESD precautions and proper workstation setup prevent component damage? 5 Marks
- ii. Discuss the procedures involved in replacing a mobile display. What safety and verification steps should be followed to ensure successful display installation? 5 Marks

OR

- i. Compare the different types of mobile batteries used in smartphones. Explain their replacement process and the importance of testing functionality after installation. 5 Marks
- ii. Discuss the challenges that may arise during the assembly of a mobile device. Suggest effective troubleshooting techniques for addressing common issues encountered during the process. 5 Marks

Question 2: Answer the following questions:

- i. What is firmware in mobile devices? Describe the steps involved in updating firmware and discuss why keeping firmware current is critical for system security and performance. 5 Marks
- ii. Describe the process of sensor calibration in smartphones. Explain how miscalibration affects components such as gyroscope, accelerometer, and proximity sensors. 5 Marks

OR

- i. Explain the relationship between software updates and hardware optimization. How can improper configuration or outdated firmware lead to hardware malfunctions? 5 Marks
- ii. Based on practical experiences, describe the steps involved in configuring and troubleshooting mobile devices. Provide examples of real-world scenarios and suggest effective solutions for resolving common technical issues. 5 Marks

Question 3: Attempt any Five out of Six.**5 Marks**

1. Which component of a mobile device is responsible for executing all processing instructions?

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2. Which tool or software is commonly used to diagnose mobile hardware faults?
3. Which tool is most used to handle small screws during mobile hardware assembly?
4. What is the key difference between Li-ion and Li-polymer batteries?
5. What is firmware in the context of mobile devices?
6. How can users optimize the performance of a mobile device's display?
 - A. By reducing display brightness and setting adaptive brightness.
 - B. By installing third-party display management software.
 - C. By disabling the touchscreen functionality.
 - D. By increasing the resolution beyond hardware limits.

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