

POKHARA UNIVERSITY

Time-Bound Open Book Hybrid Examination

Level: Bachelor	Semester: Spring	Year : 2020
Programme: BCA		Full Marks : 70
Course: Mobile Application Development		Pass Marks: 31.5
Technology		Time : 2 hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Group 'A'

Attempt all questions.

(5×10=50)

1. How do you justify the Java OOP's has greater contribution in the software development industries? Why and how the concept of Interface and Abstract class has greater importance in the software development? Justify with code example.
2. Imagine you are developing an e-commerce android application with features like Login, SignUp, Product list, Order, Add to cart, wishlist and more typical e-commerce features.
Mention where would you use Fragments or Activities and why? Explain in details about both the scenarios. Also make use of their life cycle in your application with example code.
3. Some of the apps are paid in Google Play store. Most of the apps are free to download and use but they are earning money from market. How these apps are earning money even they are free to download and install? If you have to design and publish such types of apps how do you implement such types of earning features to your app. Illustrate with example code.

OR

The information of COVID-19 infected students are stored in a local database in Question No. 6. If these information needs to be synchronize and stored to web server than what are the technology and tools that you can use and how can you implement them? Give your concept on such case with code example.

4. For any android project minimum SDK version plays the vital role, what will be the factors you decide to get a particular SDK version, explain why and what would be the least and the max SDK version you would use for each different kind of apps. Explain in context with two different example application.

5. Graphics and Multimedia plays vital role in the UI/UX design part of Mobile apps. How do you implement these things in the context of android development? Illustrate with code example.

Group 'B'

Problem-solving/case studies

(1×20=20)

6. In this pandemic situation Pokhara University is conducting an online examination. The university may face a problem that all students cannot attend the examination due to COVID-19 serious case. You are hired as a programmer by the university to collect the information of such students and re-schedule the examination based on their case information. Design a mobile application to collect such student's information including name, mobile number, email address, current location, university roll number, college name, program, and semester and details information about the case. These information must be stored in a database in a mobile device. And also need to display all the COVID-19 infected students' information on the other screen when you click on the list case button.

(Note: The database is "*pu.db*" and table is "*tbl_covid_infected_students*")