

Pune Vidyarthi Griha's  
College of Science and Technology  
S.Y.B. Sc (Computer Science) SEM-IV REGULAR AND ATKT FIRST HALF OF APRIL-2024  
SUB: Android Application Development

Q.P CODE: USCS405

(TIME :2 ½ Hrs.)

TOTAL MARKS: 75M

**N.B: -**

1. All questions are compulsory.
2. Make suitable assumptions wherever necessary and state the assumptions made.
3. Answers to the same question must be written together.
4. Numbers to the right indicate marks.
5. Draw neat labeled diagrams wherever necessary.
6. Use of Non-programmable calculators are allowed.

**Q. 1 Answer the following (Attempt any four)**

**[20 Marks]**

- a) State and explain Kotlin operators.
- b) What are the major concepts of OOPs in kotlin?
- c) Explain the extension function and companion object with example.
- d) Explain Variables also give examples for mutable and immutable variables.
- e) What are the declaring and calling functions?
- f) Explain with Examples Visibility Modifiers.

**Q. 2 Answer the following (Attempt any four)**

**[20 Marks]**

- a) Explain designing a menu in XML.
- b) Explain android camera and input vertex.
- c) Explain the function to store data using SQ lite database.
- d) Explain AsyncTask and Job scheduler.
- e) State and explain control flow statements and loop statements.
- f) Explain the android application framework.

**Q. 3 Answer the following (Attempt any four)**

**[20 Marks]**

- a) Explain internal and external storage
- b) Explain Constructors and its types with examples.
- c) Explain services, threads, and processes.
- d) Explain Fragment and Fragment Lifecycle with diagram.
- e) Explain the drawable class.
- f) What is the firebase database? Explain real-time data.

Q. 4 Answer the following (Attempt any five) .

[15 Marks]

- a) What is null safety?
- b) What are the parameters and arguments?
- c) Explain Job Schedulers.
- d) Explain Input Gestures.
- e) Write a short note in shared preference.
- f) Explain steps to deploy application on google Play.