



Sample Paper

Course : ADUA Version-II

Duration : 02:00 Hours

Maximum Marks : 120

Note:

- Attempt all questions in Section A-(2 marks each).
- All questions are compulsory in Section B-(5 marks each). However, out of 8 questions 4 questions will have additional questions as internal choices.
- All questions are compulsory in Section C-(10 marks each). However, out of 4 questions 2 questions will have additional questions as internal choices.

Section A

Q1. Effective management of time requires:

- a) Prioritizing tasks
- b) Ignoring deadlines
- c) Wasting time on trivial tasks
- d) Multitasking constantly

Q2. What is the purpose of an SDK?

- a) To analyze data structures
- b) To design hardware components
- c) To create virtual reality games
- d) To develop software applications

Q3. DML specifies how data are structured in the database

- a) False
- b) True

Q4. What is the output of `println(5 + 3 * 2)` in Kotlin?

- a) 16
- b) 11
- c) 13
- d) 10

Q5. Which of the following members are not inherited by a derived class from its base class?

- a) constructor and destructor
- b) all of the mentioned
- c) friends
- d) operator = () members

Q6 Which of the following can have only one definition within a class?

- a) Destructors
- b) Constructor
- c) Object
- d) Method

Q7. Namespaces help in organizing code by grouping related data and structures into logical units.

- a) True
- b) False

Q8. Which of the following is a "do" of effective communication?

- a) Interrupt the speaker to share your own experiences.
- b) Assume the listener understands without seeking clarification.
- c) Maintain eye contact and nod to show understanding.
- d) Use jargon and technical terms to impress the listener.

Q9. Latency is the amount of time taken for data to reach its destination from the source over a network.

- a) True
- b) False

Q10. Foreign Key can contain duplicate values.

- a) False
- b) True

Q11. The efficiency and accuracy of manual systems make them effective for handling tasks.

- a) True
- b) False

Q12. The Dalvik Virtual Machine is a key component of which section of the Android architecture?

- a) Android Runtime
- b) Application Framework
- c) Applications
- d) Libraries

Q13. Which layer is considered the topmost layer in the Android architecture?

- a) Android Runtime
- b) Application Framework
- c) Libraries
- d) Applications

Q14. Identify the class that is not abstract among the following options

- a) Thread
- b) AbstractList
- c) List
- d) None of the options

Q15. Identify the SQL comparison operator from the following options:

- a) Like
- b) Equal Sign(=)
- c) None of the options
- d) Double Equal Sign(==)

Q16. Kotlin is a statically typed programming language.

- a) True
- b) False

Q17. Which of the following is first generation of computer?

- a) ICL-2900
- b) CDC-1604
- c) EDSAC
- d) IBM-1401

Q18. The Software Development Kit (SDK) for Android includes essential resources for building Android applications.

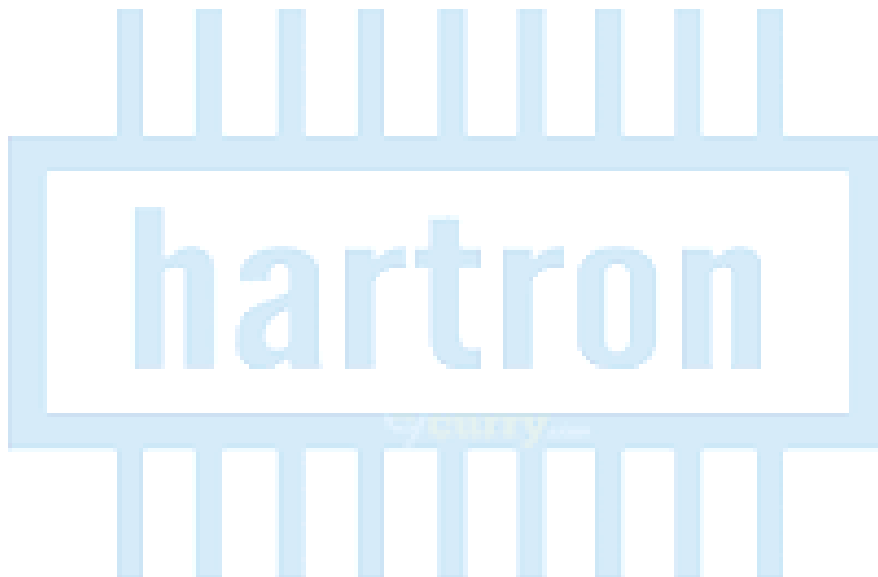
- a) True
- b) False

Q19. Employability skills are useful only when searching for a job and do not benefit individuals who already have secure employment.

- a) True
- b) False

Q20. Google allows external applications and websites to connect with its database and import data in JSON format. This statement is

- a) False
- b) True



Section B

Q1. Define the following

a) IP Address b) Bandwidth c) Workstation d) VPAN e) Router

Q2. Write the process of creating a new application project in Android Studio?

Q3. Define following terms :

a) Pointer, b) Structure, c) Variable d) Inheritance e) Polymorphism

Q4. Discuss the characteristics of DELETE and UPDATE anomalies in relational databases.

OR

What is the purpose of the DROP command in SQL? Explain with examples.

Q5. What are the drawbacks of implementing Telephony APIs in Android apps?

OR

What are the key features of internal storage and external storage in Android?

Q6. Explain the concept of Java applets and discuss their life cycle?

OR

How can abstraction improve software design?

Q7. What are the different types of operators in Java? Explain each briefly.

OR

Explain how the Java Virtual Machine (JVM) manages memory.

Q8. Explain how effective communication enhances productivity and collaboration at Work?

Section C

Q1. Write a program in Java to input two numbers from the user and find their GCD (HCF).

OR

Write a program in Java to read contents of a text file and display them.

Q2. Write a C++ program to count all the consonants in a given string

Q3. Write a code in Android to display a list of items using RecyclerView.

OR

Write a code in Android to implement Speech-to-Text functionality.

Q4. Write the steps for the following in Microsoft Excel:

- A) How to insert a new worksheet in a workbook?
- B) How to delete worksheets in a workbook?
- C) How to create a copy of a worksheet in a workbook?
- D) How to copy a worksheet from one position to another?