

**J & K BOARD OF TECHNICAL EDUCATION**Semester: 5<sup>th</sup>

Branch: Computer Engineering/IT

Subject: Java Programming

Scheme: New

Time : 3 Hrs

Session: ND22

M.M.: 100

*Note:- Attempt any five Questions. All Questions carry equal marks*

- Q1. a) Briefly explain the features of Java. [10]  
b) What is JVM and JIT? Explain. [10]
- Q2. Explain the concept of control flow statements with the help of an example in Java? [20]
- Q3. Briefly explain the concept of Memory Management in Java? [20]
- Q4. Explain:  
a) Inheritance b) Encapsulation  
c) Polymorphism d) Constructors [20]
- Q5. Briefly explain the concept of Java Packages? [20]
- Q6. Briefly explain the concept of Multi-Threading in Java? [20]
- Q7. What do you understand by Synchronization? Briefly explain the life cycle of a thread? [20]
- Q8. What are exceptions? Briefly explain the concept of exception handling in Java? [20]
- Q9. a) Draw a comparison between C and C++. [10]  
b) What do you understand by command line arguments. [10]
- Q10. Explain the concept of JDBC (Java Data Base Connectivity)? [20]

M.M.: 100

Q10: Explain with the help of a suitable diagram the process of encryptions and decryption? (20)

RND225/CE

J & K BOARD OF TECHNICAL EDUCATION

Semester: 5<sup>th</sup>

Branch: Computer Engineering

Subject: Wireless Communication (Elective-I)

Scheme: New

Time : 3 Hrs

Session: ND22

M.M.: 100

Note:- Attempt any five Questions. All Questions carry equal marks

- Q1. Explain:  
a) Paging Systems                      b) EDGE Technology                      (20)
- Q2. Explain:  
a) Frequency Reuse                      b) Handoff Strategies                      (20)
- Q3. Explain:  
a) FDMA                      b) TDMA                      (20)
- Q4. What do you understand by Amplitude modulation, angle modulation, digital modulation? Explain?                      (20)
- Q5. Briefly explain the fundamentals of Channel Coding?                      (20)
- Q6. Briefly explain the differences between wireless and fixed telephone networks?                      (20)
- Q7. Briefly explain ISDN in Wireless Networking?                      (20)
- Q8. Briefly explain GSM architecture?                      (20)
- Q9. Briefly explain the concept of CDMA digital cellular standard in wireless systems?                      (20)
- Q10. Explain:  
a) Bluetooth                      b) UMTS                      (20)



**J & K BOARD OF TECHNICAL EDUCATION**

RND225SCE

**Semester: 5<sup>th</sup>**

**Branch: Computer Engineering**

**Subject: Computer Peripheral and Interfacing**

**Scheme: New**

**Time : 3 Hrs**

**Session: ND22**

**M.M.: 100**

**Note:- Attempt any five Questions. All Questions carry equal marks.**

- Q1.** Briefly explain the working of CRT? (20)
- Q2.** Point out the main differences between raster scan and vector graphics? Mention few advantages of raster scan and vector graphics? (20)
- Q3.** What do you understand by pipelining? What do you understand by RISC & CISC? Briefly explain? (20)
- Q4.** What do you understand by impact and non impact pointers? Briefly explain the principle and working of inkjet printer? (20)
- Q5.** What do you understand by SMPS? Briefly explain? (20)
- Q6.** What is BIOS? Explain various functions of BIOS? (20)
- Q7.** Explain:  
a) Digital Camera                      b) Web Camera (20)
- Q8.** What do you understand by Memory Hierarchy? Briefly explain? (20)
- Q9.** Explain:  
a) EIDE                                      b) SATA  
c) SCSI                                      d) SAS (20)
- Q10.** Explain:  
a) Cache Memory                      b) Virtual Memory (20)

**J & K BOARD OF TECHNICAL EDUCATION**Semester: 5<sup>th</sup>

Branch: Computer Engineering

Subject: Advance Data Base Management System

Scheme: New

Time : 3 Hrs

Session: ND22

M.M. : 100

**Note:- Attempt any five Questions. All Questions carry equal marks.**

- Q1. What do you understand by DATA Independence? Briefly explain the concept of Normalization? (20)
- Q2. What do you understand by Data Models? Explain? (20)
- Q3. What do you understand by Distributed databases? What are the various types of distributed database systems? (20)
- Q4. Explain:  
a) Data definition language      b) Scalar functions with respect to DDL  
c) Null values w.r.t DDL      d) Aggregate functions w.r.t DDL (20)
- Q5. What do you understand by Data Manipulation language? Explain the working of a join operator with the help of an example? (20)
- Q6. Explain the concept of Triggers? (20)
- Q7. What do you understand by Indexes? What are the advantages and disadvantages of views? (20)
- Q8. Explain the terms given below with the help of examples:  
a) Try and Catch Statements      b) If Statement & While Statement (20)
- Q9. Explain:  
a) Object Definition Language.      b) Object Query language  
c) Object Relational Systems      d) SQL3 (20)
- Q10. What do you understand by backup & recovery with respect of installation of SQL server? Also explain steps to install SQL Server? (20)