|  |  |
| --- | --- |
| Arid Agriculture University Rawalpindi | Rawalpindi | **Pir Mehr Ali Shah Arid Agriculture University Rawalpindi**  **University Institute of Information Technology** |

**Assignment**

|  |  |
| --- | --- |
| **Course Code** | CS-432 |
| **Course Title** | Modern Programming Languages |
| **Instructor’s Name** | Dr. Saif Ur Rehman |
| **Class/Section/Mor/Eve** | BSCS-5A Evening |
| **Assignment No** | 07 |
| **Due Date** | 7 January 2024 |

**Question No. 1** What is Thread?

1. What is Multithreading?
2. What are the different methods of creating the Threads in Java
3. List down all the methods used in Multithreading
4. What are the advantages of using Multithreading
5. Define all the methods used in Thread Life Cycle
6. There are two methods of creating threads in Java, Give programming example of each method to create and run the threads
7. Write a Java Program to create ten threads and run these threads
8. Write Java Code and explain the code for each of the following Multithreading concepts in Java
   1. **Exploring isAlive() & join() methods**
   2. **Thread Priorities**
   3. **Suspending, Resuming, and Stopping Threads**
   4. **Thread Synchronization**

**Requirements: Prepare a Word Document and add the screen shot of the code and the output of the Code**