

# **Lamrin Tech Skills University Punjab**

## **University School of Engineering & Technology**

Program: B.Tech

MST-I Sept. 2024

Semester: 3rd

Max. Marks: 25

### **Course Title: System Programming and Operating System (UGCS-204)**

1. SECTION-A is Compulsory carrying one marks each.
2. SECTION-B you have to attempt 3 questions carrying 5 marks each.
3. SECTION-C you have to attempt 1 question carrying 8 marks each.

#### **Section-A (5x1=5)**

Q1.

- (i) Define Operating System.
- (ii) What is Kernel?
- (iii) Define Real Time OS.
- (iv) Define Debugger.
- (v) What type of system program is responsible for translating high-level code into machine code?

#### **Section-B (3x4=12)**

Q2. What is a System call? What are the various types of system calls provided by an operating system?

Q3. Explain Monolithic OS structure with its advantages and disadvantages.

Q4. What is System Programming. Define any three system programs.

Q5. Explain Micro-Kernel OS structure with its advantages and disadvantages.

Q6. Explain Layered OS structure with its advantages and disadvantages.

#### **Section-C (1x8=8)**

Q7. Explain different types of operating system with their advantages and disadvantages.

Q8. Explain the key operating system services with the help of a diagram.