ZCAS University

SCHOOL OF COMPUTING, TECHNOLOGY AND APPLIED SCIENCES

MID-SEMESTER EXAM

DISTRIBUTED SYSTEM (CIT4312)

INSTRUCTIONS:

1. This paper consist of Six (Questions)

2. **You are required to answer any five (5) Questions**

3. This paper carries a total of 100 marks

4. Neat work with clear examples is high recommended.

5. Time allowed is   1 hr 30 Minutes.

6. Candidates must not turn this page until the invigilator tells them to do so.

Question one

With a neat diagram explain the system architecture of distributed systems? [10 Marks]

Discuss in detail the architecture and principles of Monolithic kernel and Micro kernel. [10 Marks]

Question two

Discuss the Principle of RPC between a client and server program. [10 Marks]

Discuss the Design issues of Distributed system? [10 Marks]

Question three

Explain what is meant by remote procedure call. [10 Marks]

Explain the client server communication model. Also Discuss about marshaling in detail. [10 Marks]

Question four

Describe various deadlock handling techniques [10 Marks]

Explain the principles for designing scalable distributed systems. [10 Marks]

Question five

Explain the security challenges of distributed systems. [10 Marks]

Explain how mutual exclusion is handled in distributed system. [10 Marks]

Question six

What are the design issues of distributed operating system? [10 Marks]

Explain in detail light weight Remote Procedure call [10 Marks]