COURSE CODE: CIT832
COURSE TITLE: OPERATING SYSTEM CONCEPT AND NETWORKING MANAGEMENT
COURSE CREDIT: 3 UNITS
TIME ALLOWED: 3 HOURS
INSTRUCTION: ANSWER QUESTION 1 AND ANY OTHER THREE QUESTIONS

Question 1:   25mks

i. What is Operating System?   (5Mks)

ii. Identify Three (3) Important reasons for studying Operating Systems   (5Mks)

iii. Identify Four (4) Operating System Structures   (5Mks)

iv. Identify with examples, the two broad classes of modern Operating Systems   (5Mks)

v. Identify at least, Four (4) characteristics of modern Operating Systems (5Mks)

Question 2:   15mks

i. What is a Process   (5Mks)

ii. Differentiate between a Process and a Thread   (5Mks)

iii. Identify Five (5) Process states   (5Mks)

Question 3:   15mks

i. What is Deadlock?   (5Mks)

ii. List the Four (4) necessary and sufficient conditions for deadlock?   (5Mks)

iii. How is deadlock prevented?   (5Mks)

Question 4:   15mks

i. What is CPUScheduling?   (5Mks)

ii. Differentiate between Shortest Job First (SJF) and Shortest Remaining Time (SRT) scheduling algorithms (5Mks)

iii. Identify Five (5) other process scheduling algorithms that you know   (5Mks)

Question 5:   15mks

i. Identify the Seven (7) layers of the ISO OSI reference model of a Network(5Mks)

ii. How is the TCP/IP model of networks different from the ISO OSI reference model?   (5Mks)

iii. Identify at least Two (2) networking devices that operates at layer 1, layer 2, and layer 3 of the OSI model. (5Mks)

Question 6:   15mks

i. What is Communication Protocol?   (5Mks)

ii. Identify the Protocols that operates at layer 3 and layer 4 of the OSI model   (5Mks)

iii. With example, differentiate between a connection oriented and connectionless service. (5Mks)