

QP Code : 3404

Total Marks : 80

Duration : 3 Hrs

N.B : 1) Q.1 is compulsory .

2) Attempt Any 3 out of remaining .

3) Assume suitable data wherever required .

Q.1 Answer any four:

- a) What is a system call? Explain any four system calls. 5
- b) Write a note on File Access methods 5
- c) Explain Internal & external Fragmentation 5
- d) Explain various RAID levels. 5
- e) Discuss message passing 5

Q.2 a) what are the problems associated with Critical region? How to overcome the problems using Semaphore? 10

b) What is scheduling? Give different scheduling policies & their comparison. 10

Q.3 a) Discuss various approaches for I/O Buffering provided by OS. 10

b) Differentiate between Paging & Segmentation. Also explain Various Page replacement algorithms. 10

Q.4 a) Explain Objectives & Functions of OS . 10

b) Discuss in detail various disk scheduling algorithms . 10

Q.5 a) What is a thread? Explain user Level Threads & Kernel Level Threads 10

b) What is meant by Interprocess communication? Explain Shared memory & message passing . 10

Q.6 Write a note on: 20

- a) Process control Block
- b) Android OS
- c) Process state transition Diagram
- d) Producer consumer problem