Section - A

Q1) *(10 × 2 = 20)*

a) What is buffering?

b) What is logical address space?

c) What is a thrashing?

d) What is meant by critical section?

e) What for are Resource Allocating Graphs used

f) What is real time processing?

g) What are semaphores?

h) What is spooling?

i) What is garbage collection?

j) What are program threats?

Section - B

(4 × 5 = 20)

Q2) Explain virtual memory and associative memory.

Q3) Discuss in detail the Data Encryption Standard (DES) algorithm. What are its limitations?

Q4) Write short notes on the following:
(a) Two-phase locking.
(b) Wait-die and Wound-wait.

Q5) What do you mean by page-faults? When do page-faults occur? Describe the action taken by the O.S when page fault occurs?

Q6) Explain the difference between internal fragmentation and external fragmentation. Which one occurs in paging system?

Section - C

(2 × 10 = 20)

Q7) (a) How can you prevent circular waiting situation in a deadlock?
(b) Which is the main limitation of resource allocation graph?

Q8) Compare and contrast Public-key cryptography technique with Conventional cryptography technique.

Q9) What do you mean by file management? Explain the various access and allocation methods of files in detail.