TED (15) – 4134

Reg. No...

(REVISION — 2015)

Signature ....

FOURTH SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/ TECHNOLOGY — APRIL, 2017

OPERATING SYSTEM

(Common for CT and CHM)

[*Time* : 3 hours

(Maximum marks : 100)

Marks

PART — A

(Maximum marks : 10)

I   Answer the following questions in one or two sentences. Each question carries 2 marks.

1. State the need of an assembler.

2. Define process.

3. List the conditions for deadlock.

4. Name two solutions for external fragmentation.

5. Define virtualization.   (5×2=10)

PART — B

(Maximum marks : 30)

II   Answer *any five* of the following questions. Each question carries 6 marks.

1. Contrast between compiler and interpreter.

2. Explain PCB with its structure.

3. Explain different scheduling criteria.

4. Compare Internal and external fragmentation.

5. Summarize optimal and LRU page replacement algorithm.

6. Compare linked and indexed file allocation methods.

7. Explain various file operations.   (5×6=30)

[220]

[P.T.O.

Marks

PART — C

(Maximum marks : 60)

(Answer *one* full question from each unit. Each full question carries 15 marks.)

Unit — I

III   (a) Explain process management and memory management functions of OS.   9

(b) Explain Loader and its functions.   6

Or

IV   (a) Explain multi programming, multiprocessing and time sharing systems.   9

(b) Explain operating system and its functions.   6

Unit — II

V   (a) Explain FCFS, priority and RR CPU scheduling with examples.   9

(b) Explain resource allocation graph with a diagram.   6

Or

VI   (a) Explain long term, short term and medium term schedulers with diagram.   9
(b) Summarize critical section problem.   6

Unit — III

VII   (a) Explain first fit, best fit and worse fit memory allocation strategies.   9
(b) Explain segmentation.   6

Or

VIII   (a) Explain demand paging with a diagram.   9

(b) Summarize different address binding schemes.   6

Unit — IV

IX   (a) Summarize single, two level and tree structured directories.   9

(b) Explain the need for virtualization.   6

Or

X   (a) Explain full, partial and para virtualization techniques.   9

(b) Explain VMvare architecture with a diagram.   6