(vii) Page fault
(viii) LRU-algorithm
(v) Virtual memory
(ii) RAID
(i) Bus-Register

8. (a) What do you mean by seek time?
(b) Write short notes on any four of the following:
   (i) RISC and CISC
   (ii) 4,112
   (iii) 2500
   (iv) 3400
   (v) 0.430

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2015

BBA/I/08/15

What are the physical addresses for the following logical addresses?

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Full Marks: 80

Candidates are required to give their answers in their own words as far as practicable.

Answer all questions. The figures in the margin indicate full marks.

2 x \(\frac{\text{Marks}}{10} = 20\)

Group – A

(Objective Type Questions)

Choose the correct answer from the following:

---

Turnover
(3) (Turn over)

ME-5/1

(v) Context Switching

(iii) Mutual Exclusion

(ii) Dead Lock Recovery

(i) Dead Lock Avoidance

System solves the problem of...

(i) Differs, banker's algorithm is an operating...

(iii) Memory Allocation Policy

Process Synchronization Policy

Process Scheduling Policy

(i) Kind of a magnetic drum

(ii) Round Robin is a

(i) None of these

(iv) Medium Term

(ii) Short Term

(i) Long Term

Pool of jobs and loading into the ready queue?

(iii) Scheduler selects the jobs from the...

(i) Desktop Publishing

(iii) Unix

(ii) Speed-Sheet

(i) Word-Processing

Which of the following is not application software?

(iv) Spooler

(iii) Kernel

(ii) Task Manager

(i) Executive

Find the odd man out:

(iii) All of these

(iv) Disk and I/O devices

(ii) Processor

(i) Memory

6. The operating system manages:

(iii) None of these

(ii) Shell

(i) Micro Kernel

(i) Kernel

System for the user:

Provides an interface to the operating...

(iii) MS DOS

(ii) OS/2

(ii) UNIX

(i) XENIX

Engineers use?

Was originally designed by the scientists and

What is the name of operating system, which...
(j) Sharing is possible in which technique:
(i) Paging
(ii) Segmentation
(iii) Both (i) and (ii)
(iv) None of these

Group – B
(Long-answer Type Questions)

Answer any four questions of the following:

15 x 4 = 60

2. (a) What is cache memory? Explain the cache read operations.
(b) Explain DMA with neat diagram.

3. (a) What are the 3-main purposes of an operating system?
(b) Explain the following:
   (i) Spooling
   (ii) Time-sharing system
   (iii) Distributed system
   (iv) Real-time system

4. (a) What do you mean by short term scheduler?

ME – 5/1  ( 4 )  Contd.

(b) Prove that among non-preemptive scheduling algorithm, SPN provides the minimum average waiting time.

5. (a) What is a deadlock? What are the 4-necessary condition to deadlock occur?
(b) Explain about the deadlock prevention methods.

6. (a) What is advantages and disadvantages of paging?
(b) Why are pages size always power of 2?

7. (a) Explain the following allocation algorithms:
   (i) First fit
   (ii) Best fit
   (iii) Worst fit
(b) Consider the following segment table:

<table>
<thead>
<tr>
<th>Segment</th>
<th>base</th>
<th>length</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>219</td>
<td>600</td>
</tr>
<tr>
<td>1</td>
<td>2300</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>90</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>1327</td>
<td>580</td>
</tr>
<tr>
<td>4</td>
<td>1952</td>
<td>96</td>
</tr>
</tbody>
</table>

ME – 5/1  ( 5 )  (Turn over)