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BJ—02—2016

FACULTY OF SCIENCE

BCS (Second Year) (Fourth Semester) EXAMINATION

OCTOBER/NOVEMBER, 2016

(Revised Course)

COMPUTER SCIENCE

Paper (S-4.1)

(Systems Programming and Operating System-II)

(Thursday, 17-11-2016)

Time : 2.00 p.m. to 5.00 p.m.

Time—3 Hours

Maximum Marks—80

N.B. :— All questions are compulsory.

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| 1. | Attempt the following : | 20 |
| (a) | What is operating system ? | |
| (b) | Define I/O system. | |
| (c) | What is system program ? | |
| (d) | Define deadlock. | |
| 2. | (a) Explain computer system organization in detail. | 8 |
| | (b) Explain types of system calls. | 7 |
| | <i>Or</i> | |
| | (c) What is storage management ? Explain in detail. | 8 |
| | (d) Explain operating system structure. | 7 |
| 3. | (a) Explain process scheduling and scheduling queue. | 8 |
| | (b) Explain CPU-I/O burst cycle in detail. | 7 |
| | <i>Or</i> | |
| | (c) How to implement semaphores ? Explain. | 8 |
| | (d) Explain scheduling algorithm. | 7 |

P.T.O.

4. (a) What is system model ? Explain deadlock characterization. 8
(b) Explain contiguous memory management. 7
Or
(c) Explain directory and disk structure. 8
(d) Explain classic problem of synchronization. 7
5. Write short notes on (any *three*) : 15
(a) LRU
(b) System boot
(c) Multimedia System
(d) Linux
(e) Linked list.