Saraswati Mahila Mahavidyalaya, Palwal

 **Lesson Plan**

**Name of the Assistant/Associate Professor:Komal Taneja**

**Class and Section: Bsc 2st year 4th semester**

**Name of subject: Operating System**

**Subject Lesson Plan : 18 weeks(from January 2018 to April 2018)**

**(Note: Prepare as per list of holidays declared by Haryana govt.)**

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| **WEEK 1** |
| **ASSIGNMENT:** |
| **WEEK 1,DAY1 ,DATE :01/01/2018(MONDAY)** |
| Introductory Concepts: Operating systemOperating system as a resource manager,Operating system as an extended machine |
| **WEEK 1 ,DAY 2 ,DATE :02/01/2018(TUESDAY)** |
| Operating system functions and some examples of operating system |
| **WEEK 1,DAY 3 ,DATE :03/01/2018(WEDNESDAY)** |
| Operating system functions and characteristics |
| **WEEK 1 ,DAY 4 ,DATE :04/01/2018(THURSDAY)** |
| Historical evolution of operating systems |
| **WEEK 1,DAY 5 ,DATE :05/01/2018(FRIDAY)** |
|  **Holiday on account of Guru Govind Singh’s Birthday** |
| **WEEK 1 ,DAY 6 ,DATE :06/01/2018(SATURDAY)** |
| Services of operating system |
| **WEEK 2** |
| **ASSIGNMENT:** |
| **WEEK 2,DAY1 ,DATE :08/01/2018(MONDAY)** |
| Types of Operating System: according to number of userssingle users and multiuser operating system |
| **WEEK 2 ,DAY 2 ,DATE :09/01/2018(TUESDAY)** |
| Types of Operating System: Real time operating system –Difference between batch operating system and real time operating system Multiprogramming operating system |
| **WEEK 2,DAY 3 ,DATE :10/01/2018(WEDNESDAY)** |
| Types of Operating System: Multiprogramming operating system with advantage and limitation-difference between serial execution and multiprogramming execution |
| **WEEK 2 ,DAY 4 ,DATE :11/01/2018(THURSDAY)** |
| Types of Operating System: Multiprocessing operating systems |
| **WEEK 2,DAY 5 ,DATE :12/01/2018(FRIDAY)** |
| Types of Operating System: Multiprocessing operating system with advantage and limitation-difference between multiprogramming and multiprocessing operating system |
| **WEEK 2 ,DAY 6 ,DATE :13/01/2018(SATURDAY)** |
| Types of Operating System: batch operating system –offline processing ,buffering, spooling |
| **WEEK 3** |
| **ASSIGNMENT:** |
| **WEEK 3,DAY1 ,DATE :15/01/2018(MONDAY)** |
| Oral test |
| **WEEK 3 ,DAY 2 ,DATE :16/01/2018(TUESDAY)** |
| Methodologies for implementation of O/S service system calls |
| **WEEK 3,DAY 3 ,DATE :17/01/2018(WEDNESDAY)** |
| Methodologies for implementation of O/S service system calls continues..s |
| **WEEK 3 ,DAY 4 ,DATE :18/01/2018(THURSDAY)** |
| Revision class |
| **WEEK 3,DAY 5 ,DATE :19/01/2018(FRIDAY)** |
| system programs |
| **WEEK 3 ,DAY 6 ,DATE :20/01/2018(SATURDAY)**system programs continues… |
| **WEEK 4** |
| **ASSIGNMENT:** |
| **WEEK 3,DAY1 ,DATE :22/01/2018(MONDAY)** |
|  **Holiday on account of Basant Panchmi.** |
| **WEEK 4 ,DAY 2 ,DATE :23/01/2018(TUESDAY)** |
| Presentation |
| **WEEK 4,DAY 3 ,DATE :24/01/2018(WEDNESDAY)** |
|  **Holiday on account of Sir Chotu Ram Jayanti.** |
| **WEEK 4 ,DAY 4 ,DATE :25/01/2018(THURSDAY)** |
| Doubt class and revision of unit 1 |
| **WEEK 4,DAY 5 ,DATE :26/01/2018(FRIDAY)** |
|  **Holiday on account of Republic Day.** |
| **WEEK 4 ,DAY 6 ,DATE :27/01/2018(SATURDAY)** |
| Test of unit 1 |
| **WEEK 5** |
| **ASSIGNMENT:** Process states, Process Control Block |
| **WEEK 5,DAY1 ,DATE :29/01/2018(MONDAY)** |
| Process management: Process concepts in detail. Difference between program and process |
| **WEEK 5 ,DAY 2 ,DATE :30/01/2018(TUESDAY)** |
| operations on processes-process creation and process termination |
| **WEEK 5,DAY 3 ,DATE :31/01/2018(WEDNESDAY)** |
|  **Holiday on account of Guru Ravi Dass Jayanti** |
| **WEEK 5 ,DAY 4 ,DATE :01/02/2018(THURSDAY)** |
| Process states description.. |
| **WEEK 5,DAY 5 ,DATE :02/02/2018(FRIDAY)** |
| Process Control Block. Along with diagram |
| **WEEK 5 ,DAY 6 ,DATE :03/02/2018(SATURDAY)** Doubt class |
| **WEEK 6** |
| **ASSIGNMENT:** |
| **WEEK 6,DAY1 ,DATE :05/02/2018(MONDAY)** |
| CPU Scheduling: criteria for Scheduling-CPU utilization, Throughput, Turnaround time, Waiting time, Load average, Response time |
| **WEEK 6 ,DAY 2 ,DATE :06/02/2018(TUESDAY)** |
| Levels of CPU Scheduling- preemptive and non preemptive |
| **WEEK 6,DAY 3 ,DATE :07/02/2018(WEDNESDAY)** |
| Scheduling algorithms- First Come First Serve(FCFS) Scheduling |
| **WEEK 6 ,DAY 4 ,DATE :08/02/2018(THURSDAY)** |
| Scheduling algorithms- Shortest-Job-First(SJF) Scheduling |
| **WEEK 6,DAY 5 ,DATE :09/02/2018(FRIDAY)** |
| Distribution of test 1 |
| **WEEK 6 ,DAY 6 ,DATE :10/02/2018(SATURDAY)** |
|  **Holiday on account of Maharshi Dayanand Saraswati Jayanti.** |
| **WEEK 7** |
| **ASSIGNMENT:** |
| **WEEK 7,DAY1 ,DATE :12/02/2018(MONDAY)** |
| Scheduling algorithms--Priority Scheduling |
| **WEEK 7 ,DAY 2 ,DATE :13/02/2018(TUESDAY)** |
| **Holiday on account of Maha Shivaratri.** |
| **WEEK 7,DAY 3 ,DATE :14/02/2018(WEDNESDAY)** |
| Scheduling algorithms- Round Robin(RR) Scheduling |
| **WEEK 7 ,DAY 4 ,DATE :15/02/2018(THURSDAY)** |
| Scheduling algorithms- Multilevel Queue Scheduling |
| **WEEK 7,DAY 5 ,DATE :16/02/2018(FRIDAY)** |
| Scheduling algorithms-Multilevel Feedback Queue Scheduling |
| **WEEK 7 ,DAY 6 ,DATE :17/02/2018(SATURDAY)** |
| Revision class of Scheduling algorithms |
| **WEEK 8** |
| **ASSIGNMENT:** |
| **WEEK 8,DAY1 ,DATE :19/02/2018(MONDAY)** |
| Multiple processor scheduling |
| **WEEK 8 ,DAY 2 ,DATE :20/02/2018(TUESDAY)** |
| Deadlocks: Deadlock characterization, necessary and sufficient deadlock condition  |
| **WEEK 8,DAY 3 ,DATE :21/02/2018(WEDNESDAY)** |
| Presentation |
| **WEEK 8 ,DAY 4 ,DATE :22/02/2018(THURSDAY)** |
| Deadlock prevention |
| **WEEK 8,DAY 5 ,DATE :23/02/2018(FRIDAY)** |
| Deadlock Avoidance- Mutual Exclusion, Hold and Wait, No Preemption |
| **WEEK 8 ,DAY 6 ,DATE :24/02/2018(SATURDAY)** |
| Handling deadlock- Preemption, Rollback, Kill one or more processes |
| **WEEK 9** |
| **ASSIGNMENT:** |
| **WEEK 9,DAY1 ,DATE :26/02/2018(MONDAY)** |
| Revision class  |
| **WEEK 9 ,DAY 2 ,DATE :27/02/2018(TUESDAY)** |
| Test unit 2 |
| **WEEK 9,DAY 3 ,DATE :28/02/2018(WEDNESDAY)** |
|  **VACATION –II** |
| **WEEK 9 ,DAY 4 ,DATE :01/03/2018(THURSDAY)** |
|  **VACATION -II** |
| **WEEK 9,DAY 5 ,DATE :02/03/2018(FRIDAY)** |
|  **VACATION -II** |
| **WEEK 9 ,DAY 6 ,DATE :03/03/2018(SATURDAY)** |
|  **VACATION -II** |
| **WEEK 10** |
| **ASSIGNMENT:** Classical process co-ordination problems and their solutions,Dinning philosophers problems, Readers writers problems, Producers consumers problems |
| **WEEK 10,DAY1 ,DATE :05/03/2018(MONDAY)** |
| Concurrent Processes and sequential process |
| **WEEK 10,DAY 2 ,DATE :06/03/2018(TUESDAY)** |
| Critical section problem –(Avoid race condition)-hardware solution, software solutions |
| **WEEK 10,DAY 3 ,DATE :07/03/2018(WEDNESDAY)** |
| Semaphores-binary semaphores, counting semaphoresMutual exclusion ,disadvantages |
| **WEEK 10,DAY 4 ,DATE :08/03/2018(THURSDAY)** |
| Classical process co-ordination problems and their solutions,Dinning philosophers problems |
| **WEEK 10,DAY 5 ,DATE :09/03/2018(FRIDAY)** |
| Classical process co-ordination problems and their solutions,Readers writers problems |
| **WEEK 10 ,DAY 6 ,DATE :10/03/2018(SATURDAY)** |
| Classical process co-ordination problems and their solutionsProducers consumers problems |
| **WEEK 11** |
| **ASSIGNMENT:** |
| **WEEK 11,DAY1 ,DATE :12/03/2018(MONDAY)** |
| Distribution of test and doubt session |
| **WEEK 11,DAY 2 ,DATE :13/03/2018(TUESDAY)** |
| Inter-process Communication - Co-operating process. |
| **WEEK 11,DAY 3 ,DATE :14/03/2018(WEDNESDAY)** |
| memory management of single-user operating systemmemory management of multi-user operating system |
| **WEEK 11,DAY 4 ,DATE :15/03/2018(THURSDAY)** |
| Partitioning- partition allocation schemes ,first fit, Best fit |
| **WEEK 11,DAY 5 ,DATE :16/03/2018(FRIDAY)** |
| Oral test |
| **WEEK 11 ,DAY 6 ,DATE :17/03/2018(SATURDAY)** |
| Partitioning- partition allocation schemes-worst fit, next fit |
| **WEEK 12** |
| **ASSIGNMENT:** |
| **WEEK 12,DAY1 ,DATE :19/03/2018(MONDAY)** |
| Swapping –swap in and swap out |
| **WEEK 12,DAY 2 ,DATE :20/03/2018(TUESDAY)** |
| Swapping**- Static relocation, Dynamic relocation** |
| **WEEK 12,DAY 3 ,DATE :21/03/2018(WEDNESDAY)** |
| Paging-address translation |
| **WEEK 12,DAY 4 ,DATE :22/03/2018(THURSDAY)** |
| Paging-implementation of page table-production and sharing |
| **WEEK 12,DAY 5 ,DATE :23/03/2018(FRIDAY)** |
|  **Holiday on account of Shahidi diwas.** |
| **WEEK 12 ,DAY 6 ,DATE :24/03/2018(SATURDAY)** |
| Segmentation-address translation |
| **WEEK 13** |
| **ASSIGNMENT:** |
| **WEEK 13,DAY1 ,DATE :26/03/2018(MONDAY)** |
| Segmentation –implementation of Segment tableProtection and sharing |
| **WEEK 13,DAY 2 ,DATE :27/03/2018(TUESDAY)** |
| Thrashing-causes of Thrashing |
| **WEEK 13,DAY 3 ,DATE :28/03/2018(WEDNESDAY)** |
| Thrashing-methods to handle Thrashing |
| **WEEK 13,DAY 4 ,DATE :29/03/2018(THURSDAY)** |
|  **Holiday on account of Mahavir jayanti.** |
| **WEEK 13,DAY 5 ,DATE :30/03/2018(FRIDAY)** |
| Revision class |
| **WEEK 13 ,DAY 6 ,DATE :31/03/2018(SATURDAY)** |
| Test unit 3 |
| **WEEK 14** |
| **ASSIGNMENT:** |
| **WEEK 14,DAY1 ,DATE :02/04/2018(MONDAY)** |
| File management: file concepts |
| **WEEK 14,DAY 2 ,DATE :03/04/2018(TUESDAY)** |
| File SystemsFunctions of the system |
| **WEEK 14,DAY 3 ,DATE :04/04/2018(WEDNESDAY)** |
| File access methods-Sequential accessRandom method |
| **WEEK 14,DAY 4 ,DATE :05/04/2018(THURSDAY)** |
| File access methods-ISAM(indexed sequential access method) |
| **WEEK 14,DAY 5 ,DATE :06/04/2018(FRIDAY)** |
| Distribution of test |
| **WEEK 14 ,DAY 6 ,DATE :07/04/2018(SATURDAY)** |
| allocation methods: Contiguous allocationlinked allocation |
| **WEEK 15** |
| **ASSIGNMENT:** |
| **WEEK 15,DAY1 ,DATE :09/04/2018(MONDAY)** |
| allocation methods:indexed allocation(i-node allocation) |
| **WEEK 15,DAY 2 ,DATE :10/04/2018(TUESDAY)** |
| Directory Systems |
| **WEEK 15,DAY 3 ,DATE :11/04/2018(WEDNESDAY)** |
| Structured Organizations |
| **WEEK 15,DAY 4 ,DATE :12/04/2018(THURSDAY)** |
| Presentation  |
| **WEEK 15,DAY 5 ,DATE :13/04/2018(FRIDAY)** |
| Doubt class |
| **WEEK 15 ,DAY 6 ,DATE :14/04/2018(SATURDAY)** |
| **Holiday on account of Vaisakhi & Dr B.R. Ambedkar’s Jayanti.** |
| **WEEK 16** |
| **ASSIGNMENT:** |
| **WEEK 16,DAY1 ,DATE :16/04/2018(MONDAY)** |
| directory and file protection mechanisms |
| **WEEK 16,DAY 2 ,DATE :17/04/2018(TUESDAY)** |
| Revision class |
| **WEEK 16,DAY 3 ,DATE :18/04/2018(WEDNESDAY)** |
| **Holiday on account of Maharshi Pasuram Jayanti** |
| **WEEK 16,DAY 4 ,DATE :19/04/2018(THURSDAY)** |
| Test unit 4 |
| **WEEK 16,DAY 5 ,DATE :20/04/2018(FRIDAY)** |
| Discussion on previous year questions  |
| **WEEK 16 ,DAY 6 ,DATE :21/04/2018(SATURDAY)** |
| Revision Class |
| **WEEK 17** |
| **ASSIGNMENT:** |
| **WEEK 17,DAY1 ,DATE :23/04/2018(MONDAY)** |
| Revision ClassDistribution of test |
| **WEEK 17,DAY 2 ,DATE :24/04/2018(TUESDAY)** |
| Revision Class |
| **WEEK 17,DAY 3 ,DATE :25/04/2018(WEDNESDAY)** |
| Revision Class |
| **WEEK 17,DAY 4 ,DATE :26/04/2018(THURSDAY)** |
| Revision Class |
| **WEEK 17,DAY 5 ,DATE :27/04/2018(FRIDAY)** |
| Revision Class |
| **WEEK 17 ,DAY 6 ,DATE :28/04/2018(SATURDAY)** |
| Revision Class |
| **WEEK 18** |
| **ASSIGNMENT:** |
| **WEEK 18,DAY1 ,DATE :30/04/2018(MONDAY)** |
| Revision Class |

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