**D.Y. PATIL COLLEGE OF ENGINEERING & TECHNOLOGY**

**Set-: I**

**Q. Paper Code:**

**KASABA BAWADA KOLHAPUR-416006**

**(An Autonomous Institute)**

S. Y. B. Tech/B.Arch/M. Tech (CSE)

**END SEMESTER EXAMINATION (ESE), May -June. – 2023**

Course Name: **Operating System**  Course Code: **201CSL211**

Seat No:

**Day and Date: Thursday, 01.06.2023**

**Time: 1.00 am to 12.00 pm Max. Marks- 50**

***Instructions:***

1. *Question No. 1&2 is compulsory.*
2. *Figure to the right indicate full marks.*
3. *Give suitable general Instructions*
4. *Any other Course Specific Instructions.*
5. *Noquestions shouldrepeat from MSE/ISE*

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| **BT** | **CO’s** | **Q.No.** |  | | **Marks** | **Weightage** |
|  |  | **Q.1** | **All Questions are compulsory** | | **20** | **40%** |
| **1,2** | **CO2** | **a** | List the types of Operating System. Explain any 3 types of Operating System.  **Explanation of each type[3X2]** | Unit: 1,2,3 | **6M** |
| **1,2** | **CO1** | **b** | Describe the different models used for inter-process communication. Suggest which model is better and why?  **MS–Explanation of each model[06],Suggestion[01]** | **7 M** |
| **1,2** | **CO1** | **c** | What is deadlock? Explain Banker’s Algorithm.  **MS – Each method [02], Bankers Algorithm[05]** | **7 M** |
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|  |  | **Q.2** | **All Questions are compulsory (**internal sub question permitted for optional questions either a or b) | | **10** | **60%** |
| **1,2** | **CO2** | **a** | What is Segmentation? Explain the basic segmentation method.  **MS – Definition[01],Explanation [03]** | Unit: 4 | **4** |
| **1,2** | **CO1** | **b** | Draw and Explain schematic view of Swapping**.**  **MS - Sketch [02],Explanation[04]**  **OR**  Discuss the procedure for page fault in demand paging with the help of a schematic diagram.  **MS-Sketch [02], Procedure [ 04]** | **6** |
|  | | | | | |
|  |  | **Q.3** | **All Questions are compulsory (**internal sub question permitted for optional questions either a or b) | | **10** |
| **1,2** | **CO1** | **a** | Write short note on the following terms Direct File Access method  **MS –Explanation of each method [1 x 4]** | Unit: 5 | **4** |
| **1,2** | **CO1** | **b** | Draw and Explain the interrupt – driven I/O cycle with Polling and Interrupt concepts.  **MS –Sketch[02], Explanation [04]**  **OR**  What are file attributes and Explain the minimal set of requirements needed for the file operations.  **MS –File attributes [03], File operations [06]** | **6** |
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|  |  | **Q.4** | **Attempt any two out of three questions** | | **10** |
| **1,2** | **CO1** | **a** | With a neat diagram explain Architecture of the UNIX operating system  **Architecture with Explanation [05]** | Unit: 6 | **5** |
| **1,2** | **CO1** | **b** | Write a note on Network based Operating Systems  **Explanation [05]** | **5** |
| **1,2** | **CO1** | **C** | Explain System calls for the file system in Unix?  **Explanation [05]** | **5** |

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**\*\*\*This is a Question Paper sample Template\*\*\***

**You are requested to ensure that,**

1. The title block of the question paper is as per format
2. The course name is correctly mentioned with correct course code as per S. Y. B. Tech/B. Arch syllabus structure.
3. The name of the examination is correctly mentioned
4. The instructions are appropriate and do not violate the present rules
5. There can be variations in the Sub questions Marks, but the total of sub questions coming under main questions should not vary.
6. However internal options may be given to few sub questions with equal marks.
7. Optional questions should be in the range of 20 to 30% of the total marks of the questions paper (50 marks).
8. Alongwithsubjectivequestionpaper providethe**modelanswerpaper.**
9. **Faculty should strictly follow the guidelines/instruction (attached with this format) while setting the question paper.**
10. **Use Times New Roman, 12 Bold, for main question and Times New Roman, 12, for Sub question.**