# BCA 3rd Semester

## Course: 030010312– CC9 Fundamentals of Operating System

## ASSESMENT POLICY

**Assessment Types:**

| Assessment Code | Assessment Type | Duration of each | Occurrence | Each of marks | Weightage in CIE of 40 marks | Tentative Date |
|---|---|---|---|---|---|---|
| A1 | Quiz | 1 Hour | 01 | 20 | 01x06=06 | 2nd week of July |
| A2 | Unit Test | 1 Hour | 02 | 20 | 02x06=12 | Unit Test-1: 3rd week of August<br>Unit Test 2: 4th week of September |
| A3 | Express your Understanding [EYU] | 1 Hour | 02 | 20 | 02x06=12 | EYU-1: 4th week of July<br>EYU-2: 1th week of September |
| A4 | Internal Examination | 3 Hours | 01 | 45 | 01x10=10 | End of semester |

**Mapping Thinking Order**

| Assessment Code | Assessment Type | Weightages (%) | | | | |
|---|---|---|---|---|---|---|
| | | Remembering | Understanding | Applying | Analysing | Evaluating |
| A1 | Quiz | - | 100 | - | - | - |
| A2 | Unit Test – 1 | 25 | 35 | - | 40 | - |
| A2 | Unit Test – 2 | 25 | 35 | - | 40 | - |
| A3 | EYU - 1 | - | 80 | 20 | - | - |
| A3 | EYU - 2 | - | 80 | 20 | - | - |
| A4 | Internal Examination | 33 | 33 | - | 34 | - |

**Course Outcomes:** Upon the completion of the course students shall be able to:

CO1: Identify the suitable operating system based on data processing and users including discuss Operating System concepts, services and structure.

CO2: Understand the process management policies and scheduling of processes by CPU & evaluate the requirement for process synchronization and coordination handled by operating system.

CO3: Identify deadlock in the system and apply the prevention, avoidance, and detection techniques for deadlock.

CO4: Determine the concept of memory management, swapping, paging, segmentation, virtual memory management and page replacement algorithms.

CO5: Describe file Sharing and protection including the classification of disk scheduling algorithms.

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Approved 14/6/19

P.B.U. 14/6/19

CO6: Illustrate the security threats and attacks with countermeasures to security attacks.

**Assessment Type Classification:**

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| **Assessment Code:** | A1 | **Weightage of Content:** | **Unit** / **(%)**<br>Unit-1 / 40%<br>Unit-2 / 60% |
| **Assessment Type:** | Quiz (Online with Moodle) | | |
| **Kind of Question Format:** | Multiple Choice Questions Answers.(Attempt 30 out of 30) [ 1 X 10 + 0.5 X 20 =20] | | |
| **Course Outcome:** | CO1: Identify the suitable operating system based on data processing and users including discuss Operating System concepts, services and structure.<br>CO2: Understand the process management policies and scheduling of processes by CPU & evaluate the requirement for process synchronization and coordination handled by operating system. | | |
| **Programme Outcome** | PO1: Ability to understand the concepts of key areas in computer science.<br>PO2: Ability to design and develop system, component or process as well as test and maintain it so as to provide promising solutions to industry and society.<br>PO3: Effective communication and presentation skill. | | |

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| **Assessment Code** | A2 | **Weightage of Content :** | **Unit** / **(%)**<br>Unit-1 / 10%<br>Unit-2 / 20%<br>Unit-3 / 70% |
| **Assessment Type** | Unit Test - 1 | | |
| **Kind of Question Format:** | | | |

| Q.No | Detail | Mark of Each | Category | Remarks | Total Marks |
|---|---|---|---|---|---|
| Q:1(a) | Answer in short. | 1 | Understanding | 3 out of 4 | 03 |
| Q:1(b) | Answer in brief. | 2 | Understanding | 2 out of 3 | 04 |
| Q:2 | Practical's /scenario based Question (Refer Practical List) | 4 | Analysis | 2 out of 3 | 08 |
| Q:3 | Answer in detail | 5 | Remembering | 1 out of 2 | 05 |

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| **Course Outcome :** | CO1: Identify the suitable operating system based on data processing and users including discuss Operating System concepts, services and structure.<br>CO2: Understand the process management policies and scheduling of processes by CPU & evaluate the requirement for process synchronization and coordination handled by operating system.<br>CO3: Identify deadlock in the system and apply the prevention, avoidance, and detection techniques for deadlock. |

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| **Programme Outcome** | PO1: Ability to understand the concepts of key areas in computer science.<br>PO2: Ability to design and develop system, component or process as well as test and maintain it so as to provide promising solutions to industry and society.<br>PO3: Effective communication and presentation skill. |

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| **Assessment Code** | A2 | **Weightage of Content :** | **Unit** / **(%)**<br>Unit-1 / 10%<br>Unit-2 / 10%<br>Unit-3 / 10%<br>Unit-4 / 20%<br>Unit-5 / 50% |
| **Assessment Type** | Unit Test – 2 | | |

**Kind of Question Format:**

| Q.No | Detail | Mark of Each | Category | Remarks | Total Marks |
|---|---|---|---|---|---|
| Q:1(a) | Answer in short. | 1 | Understanding | 3 out of 4 | 03 |
| Q:1(b) | Answer in brief. | 2 | Understanding | 2 out of 3 | 04 |
| Q:2 | Practical's /scenario based Question (Refer Practical List) | 4 | Analysis | 2 out of 3 | 08 |
| Q:3 | Answer in detail | 5 | Remembering | 1 out of 2 | 05 |

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| **Course Outcome :** | CO1: Identify the suitable operating system based on data processing and users including discuss Operating System concepts, services and structure.<br>CO2: Understand the process management policies and scheduling of processes by CPU & evaluate the requirement for process synchronization and coordination handled by operating system.<br>CO3: Identify deadlock in the system and apply the prevention, avoidance, and detection techniques for deadlock.<br>CO4: Determine and understand the concept of memory management, swapping, paging, segmentation, virtual memory management and page replacement algorithms.<br>CO5: Describe file Sharing and protection including the classification of disk scheduling algorithms. |
| **Programme Outcome** | PO1: Ability to understand the concepts of key areas in computer science.<br>PO3: Effective communication and presentation skill.<br>PO4: Ability to understand professional and ethical responsibility.<br>PO5: Recognition of the need for life-long learning. |

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| **Assessment Code:** | A3 | **Weightage of Content:** | **Unit** / **(%)**<br>2 / 100 |
| **Assessment Type:** | EYU-1 | | |

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| **Question Format:** | Q-1: Answer in details (2 out of 3) [02x05=10 Marks]<br>Note: Questions shall be of remembering type in nature to test the student's understanding towards the particular topic. |
| **Course Outcome Mapped:** | CO2: Understand the process management policies and scheduling of processes by CPU & evaluate the requirement for process synchronization and coordination handled by operating system. |
| **Programme Outcome Mapped :** | PO1: Ability to understand the concepts of key areas in computer science.<br>PO2: Ability to design and develop system, component or process as well as test and maintain it so as to provide promising solutions to industry and society.<br>PO3: Effective communication and presentation skill. |

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| **Assessment Code:** | A3 | **Weightage of Content:** | **Unit** / **(%)**<br>4 / 100 |
| **Assessment Type:** | EYU-2 | | |
| **Question Format:** | Q-1: Answer in details (2 out of 3) [02x05=10 Marks]<br>Note: Questions shall be of remembering type in nature to test the student's understanding towards the particular topic. | | |
| **Course Outcome Mapped:** | CO4: Determine and understand the concept of memory management, swapping, paging, segmentation, virtual memory management and page replacement algorithms. | | |
| **Programme Outcome Mapped:** | PO1: Ability to understand the concepts of key areas in computer science.<br>PO3: Effective communication and presentation skill. | | |

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| **Assessment Code :** | A4 | **Weightage of Content :** | Unit / (%)<br>1 / 15<br>2 / 20<br>3 / 15<br>4 / 20<br>5 / 15<br>6 / 15 |

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| **Assessment Type :** | Internal |
| **Kind of Question Format:** | As per external paper format. |
| **Outcome:** | CO1: Identify the suitable operating system based on data processing and users including discuss Operating System concepts, services and structure.<br>CO2: Understand the process management policies and scheduling of processes by CPU & evaluate the requirement for process synchronization and coordination handled by operating system.<br>CO3: Identify deadlock in the system and apply the prevention, avoidance, and detection techniques for deadlock.<br>CO4: Determine and understand the concept of memory management, swapping, paging, segmentation, virtual memory management and page replacement algorithms.<br>CO5: Describe file Sharing and protection including the classification of disk scheduling algorithms.<br>CO6: Illustrate the security threats and attacks with countermeasures to security attacks. |
| **Programme Outcome** | PO1: Ability to understand the concepts of key areas in computer science.<br>PO2: Ability to design and develop system, component or process as well as test and maintain it so as to provide promising solutions to industry and society.<br>PO3: Effective communication and presentation skill.<br>PO4: Ability to understand professional and ethical responsibility.<br>PO5: Recognition of the need for life-long learning. |

**UFM:**

If two or more submitted papers are too similar for coincidence, a penalty shall be imposed that shall usually be the same for the student who did the original as for the one copying from it. Any ascertained fact of breaking institute policy shall be associated with one or all of the following:

(i) Zero marks for the work.
(ii) Report to the Programme Coordinator.
(iii) Report to the Director.

"I am well aware that conduction of CIE is sole responsibility of course teacher. I assure to conduct the aforementioned evaluation parameter in time and with integrity."

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