```
Enter the number of nodes: 4
Enter the adjacency matrix:
10
15
20
0
10
13
12
8
0
The cost matrix will be:
         10
                  15
0
                            10
         0
6
         13
                  0
                            12
8
                           0
         8
The cost of the most efficient tour = 35
Nodes visited in the most efficient tour: 0 \rightarrow 1 \rightarrow 3 \rightarrow 2 \rightarrow 0
```

```
Enter the number of nodes: 5
Enter the adjacency matrix:
0
2
0
12
5
2
0
4
8
0
4
0
4
0
3
3
8
3
0
10
5
0
10
0
The cost matrix will be:
                                    12
2
            0
                                    8
                                                0
                        0
12
                                     0
                                                10
            8
                                                0
            0
                                     10
The cost of the most efficient tour = 21
Nodes visited in the most efficient tour: 0 \rightarrow 1 \rightarrow 3 \rightarrow 2 \rightarrow 4 \rightarrow 0
```

```
*********SHORTEST JOB FIRST*******
 Enter the number of processes: 5
 For process 1:
Enter arrival time : 1
Enter burst time : 7
 For process 2:
 Enter arrival time : 3
 Enter burst time
                        : 3
 For process 3:
 Enter arrival time : 6
 Enter burst time
 For process 4:
 Enter arrival time : 7
 Enter burst time
                        : 10
 For process 5:
 Enter arrival time : 9
Enter burst time : 8
 PID
                            CT
                                              TAT
                   BT
                                     WT
                             13
                                              10
 2
          6
                             10
          7
9
                                     14
                   10
                             31
                                              24
                   8
                            21
                                     4
                                              12
 Avg WT: 5.400000
 Avg TAT: 11.400000
*********SHORTEST JOB FIRST*******
Enter the number of processes: 5
For process 1:
Enter arrival time : 0
Enter burst time : 3
For process 2:
Enter arrival time : 2
Enter burst time
For process 3:
Enter arrival time : 4
Enter burst time
For process 4:
Enter arrival time : 6
Enter burst time : 5
For process 5:
Enter arrival time : 8
Enter burst time
PID
                           \mathsf{CT}
         AT
                 BT
                                    WT
                                             TAT
0
                                    0
         2
                 6
                                             11
                           15
3
        6
                                             14
                           20
                           11
         8
Avg WT: 3.600000
Avg TAT: 7.600000
```

```
*******NON PREMPTIVE PRIORITY SCHEDULING*******
Enter the number of processes: 5
For process 1:
Enter arrival time : 0
Enter priority number : 5
                        : 9
Enter burst time
For process 2:
Enter arrival time : 1
Enter priority number : 3
Enter burst time
Enter burst time
For process 3:
Enter arrival time : 2
Enter priority number : 1
Enter burst time : 5
For process 4:
Enter arrival time : 3
Enter priority number : 2
Enter burst time : 7
For process 5:
Enter arrival time : 4
Enter priority number : 4
Enter burst time
                            : 3
               5 9
3 4
1 5
2 7
                   PRI BT
                                       CT
PID
         AT
                                                 WT
                                                           TAT
         0
0
                                      9
                                                 0
                                                           9
                                     25
14
1
        1
                                                 20
                                                           24
2
        2
                                                           12
3
         3
                                       21
                                                 11
                                                           18
                             3
                                                 21
4
         4
                   4
                                       28
                                                           24
Avg WT: 11.800000
```

Avg TAT: 17.400000

## RAJAGIRI SCHOOL OF ENGINEERING AND TECHNOLOGY(AUTONOMOUS)

#### **VISION**

To evolve into a premier technological and research institution, moulding eminent professionals with creative minds, innovative ideas and sound practical skill, and to shape a future where technology works for the enrichment of mankind.

#### **MISSION**

To impart state-of-the-art knowledge to individuals in various technological disciplines and to inculcate in them a high degree of social consciousness and human values, thereby enabling them to face the challenges of life with courage and conviction.

# DEPARTMENT OF INFORMATION TECHNOLOGY PROGRAMME: COMPUTER SCIENCE & BUSINESS SYSTEMS

#### VISION

To evolve into a department of excellence in information technology by the creation and exchange of knowledge through leading-edge research, innovation and services, which will in turn contribute towards solving complex societal problems and thus building a peaceful and prosperous mankind.

#### **MISSION**

To impart high-quality technical education, research training, professionalism and strong ethical values in the young minds for ensuring their productive careers in industry and academia so as to work with a commitment to the betterment of mankind

#### **Program Educational Objectives (PEO)**

Graduates of Computer Science & Business Systems program shall

- *PEO 1*: Have strong technical foundation for successful professional careers and to evolve as keyplayers/ entrepreneurs in the field of information technology.
- *PEO 2:* Excel in analyzing, formulating and solving engineering problems to promote life-long learning, to develop applications, resulting in the betterment of the society.
- PEO 3: Have leadership skills and awareness on professional ethics and codes.

### **Program Outcomes (PO)**

**Computer Science & Business Systems** *Program Students will be able to:* 

PO 1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering

fundamentals, and an engineering specialization to the solution of complex engineering problems.

- *PO 2.* **Problem analysis**: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- *PO 3.* **Design/development of solutions**: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- *PO 4.***Conduct investigations of complex problems**: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- *PO 5.***Modern tool usage**: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- *PO 6.***The engineer and society**: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO 7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- *PO 8.* **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- *PO 9.***Individual and team work**: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO 10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- *PO 11.***Project management and finance**: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- *PO 12.* **Life-long learning**: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.