c. (15 points) Consider the following processes, arrival times, and CPU processing requirements:

| Process Name | Arrival Time | Processing Time |
|--------------|--------------|-----------------|
| 1            | 0            | 3               |
| 2            | 1            | 5               |
| 3            | 3            | 2               |
| 4            | 9            | 2               |

For each of the following scheduling algorithms, fill in the table with the process that is running on the CPU (for timeslice-based algorithms, assume a 1 unit timeslice): For RR, assume that an arriving thread is scheduled to run at the beginning of its arrival time.

| Time                        | FIFO              | RR                      | SRTCF               |
|-----------------------------|-------------------|-------------------------|---------------------|
| 0                           | 1                 | 1                       | 1                   |
| 1                           | 1                 | 2                       | 1                   |
| 2                           | 1                 | 1                       | 1                   |
| 3                           | 2                 | 3                       | 3                   |
| 4                           | 2                 | 2                       | 3                   |
| 5                           | 2                 | 1                       | 2                   |
| 6                           | 2                 | 3                       | 2                   |
| 7                           | 2                 | 2                       | 2                   |
| 8                           | 3                 | 2                       | 2                   |
| 9                           | 3                 | 4                       | 2                   |
| 10                          | 4                 | 2                       | 4                   |
| 11                          | 4                 | 4                       | 4                   |
| Average<br>response<br>time | 3+7+7+<br>3/4 = 5 | 6+10+4<br>+3/ =<br>5.75 | 3+2+9+3/<br>4= 4.25 |

Each column is worth 5 points: 3 for correctness of the schedule (we deducted 1/2/3 points if you made minor/intermediate/major mistakes), and 2 for the average response time (1 point was deducted for minor errors).