TABLE OF INFERENCES

FIRST-FIT

p	q	n	m	t	Memory utilization	Average turnaround time (s)
1000	200	10	10	10	97	117.97
2000	200	10	10	10	93.5	89.31
3000	200	10	10	10	85.33	44.46
4000	200	10	10	10	88.25	31.67
5000	200	10	10	10	91.4	16.09
6000	200	10	10	10	87.33	0.11
7000	200	10	10	10	77.57	0.1
8000	200	10	10	10	62.37	0.1

BEST-FIT

p	q	n	m	t	Memory utilization	Average turnaround time (s)
1000	200	10	10	10	95	116.84
2000	200	10	10	10	92.5	89.16
3000	200	10	10	10	95	65.11
4000	200	10	10	10	93	38.49
5000	200	10	10	10	90.6	7.94
6000	200	10	10	10	87	0.06
7000	200	10	10	10	77.28	0.09
8000	200	10	10	10	62.37	0.15

NEXT-FIT

p	q	n	m	t	Memory utilization	Average turnaround time (s)
1000	200	10	10	10	90	116.91
2000	200	10	10	10	89	91.01
3000	200	10	10	10	89.66	65.62
4000	200	10	10	10	91	44.09
5000	200	10	10	10	89	13.79
6000	200	10	10	10	85.5	0.27
7000	200	10	10	10	77.42	0.16
8000	200	10	10	10	62	0.13

FIRST-FIT

p	q	n	m	t	Memory utilization	Average turnaround time (s)
1000	200	10	10	10	92	67.69
1000	200	12	10	10	92	116.46
1000	200	14	10	10	92	85.22
1000	200	16	10	10	81	123.12
1000	200	18	10	10	98	93.13
1000	200	20	10	10	79	125.96

BEST-FIT

p	q	n	m	t	Memory utilization	Average turnaround time (s)
1000	200	10	10	10	81	115.11
1000	200	12	10	10	87	114.36
1000	200	14	10	10	88	68.12
1000	200	16	10	10	86	123.67
1000	200	18	10	10	82	124.74
1000	200	20	10	10	94	129.54

NEXT-FIT

p	q	n	m	t	Memory utilization	Average turnaround time (s)
1000	200	10	10	10	86	117.92
1000	200	12	10	10	93	57.71
1000	200	14	10	10	91	122.08
1000	200	16	10	10	87	123.52
1000	200	18	10	10	94	126.55
1000	200	20	10	10	97	118.22

FIRST-FIT

p	q	n	m	t	Memory utilization	Average turnaround time (s)
1000	200	10	10	10	94	78.37
1000	200	10	12	10	83	83.45
1000	200	10	14	10	84	163.65
1000	200	10	16	10	85	120.63
1000	200	10	18	10	85	165.16
1000	200	10	20	10	94	134.2

BEST-FIT

p	q	n	m	t	Memory utilization	Average turnaround time (s)
1000	200	10	10	10	87	120.81
1000	200	10	12	10	89	163.52
1000	200	10	14	10	94	165.57
1000	200	10	16	10	91	164.51
1000	200	10	18	10	82	142.92
1000	200	10	20	10	94	174.51

NEXT-FIT

p	q	n	m	t	Memory utilization	Average turnaround time (s)
1000	200	10	10	10	78	162.77
1000	200	10	12	10	81	112.94
1000	200	10	14	10	91	163.62
1000	200	10	16	10	74	159.54
1000	200	10	18	10	85	105.92
1000	200	10	20	10	80	173.07

FIRST-FIT

p	q	n	m	t	Memory utilization	Average turnaround time (s)
1000	200	10	10	10	90	163.88
1000	200	10	10	12	93	166.34
1000	200	10	10	14	94	216.85
1000	200	10	10	16	90	125.76
1000	200	10	10	18	95	130.62
1000	200	10	10	20	96	134.64

BEST-FIT

p	q	n	m	t	Memory utilization	Average turnaround time (s)
1000	200	10	10	10	81	160.43
1000	200	10	10	12	89	167.92
1000	200	10	10	14	84	141.81
1000	200	10	10	16	92	219.38
1000	200	10	10	18	88	164.44
1000	200	10	10	20	91	210.89

NEXT-FIT

p	q	n	m	t	Memory utilization	Average turnaround time (s)
1000	200	10	10	10	91	162.3
1000	200	10	10	12	84	164.94
1000	200	10	10	14	82	214.12
1000	200	10	10	16	95	221.61
1000	200	10	10	18	92	206.94
1000	200	10	10	20	98	215.37

OBSERVATIONS

Memory utilization, considering all the tables, is maximum for first-fit (first fit has greater utilization when comparing memory utilization across corresponding rows of the respective table sets of first-fit, best-fit and next-fit).
This can be explained as in first fit, maximum amount of memory can be allocated. In best fit, there would be many tiny chunks of memory which can not be allocated as time passes and more process requests arrive. In next-fit, the memory block at the end of memory would get used up, leading in more small chunks of deallocated memory, reducing overall memory utilization.

In first three tables (tables for first-fit, best-fit and next-fit), as memory size increases, turnaround time and memory utilization decreased. This was because initially more processes could be allocated in less time, so less turnaround time. Also less part of memory would be used to satisfy the process requests, if all tests are done for the same duration.

Turnaround time is least for first-fit and almost comparable for best-fit and next-fit. This is because, in first fit, there is less small segments of unallocatd memory and more large chunks of unallocated memory. So more process requests can be allocated, reducing turnaround time.