```
PROBLEM A

(number - word - frequency - access time)
1) 19-algorithm-46-5 | 2) 44-ankara-74-8 | 3) 41-bag-99-7 | 4) 33-board-64-6 | 5) 10-book-89-4 | 6) 50-bus-75-6 | 7) 49-car-43-5 | 8) 3-city-15-3 | 9) 32-class-93-7 | 10) 31-clock-97-6 | 11) 17-club-70-5 | 12) 20-compiler-44-6 | 13) 12-computer-7-4 | 14) 2-country-10-2 | 15) 23-department-56-5 | 16) 46-dubai-76-6 | 17) 9-economics-4-4 | 18) 21-excel-49-7 | 19) 25-faculty-22-8 | 20) 15-game-50-6 | 21) 39-grade-26-9 | 22) 38-group-14-8 | 23) 24-head-54-7 | 24) 30-kitchen-94-9 | 25) 29-lab-92-8 | 26) 11-library-3-5 | 27) 40-meeting-88-8 | 28) 14-memory-27-7 | 29) 13-mouse-16-6 | 30) 22-name-51-7 | 31) 45-new york-77-8 | 32) 4-news-2-3 | 33) 34-pencil-65-4 | 34) 1-people-6-1 | 35) 47-plane-41-3 | 36) 5-population-1-2 | 37) 27-professor-100-4 | 38) 28-room-201-5 | 39) 6-society-28-3 | 40) 37-software-13-6 | 41) 8-sports-62-5 | 42) 16-student-60-6 | 43) 26-teacher-33-8 | 44) 36-team-19-9 | 45) 42-television-205-10 | 46) 18-text-83-7 | 47) 48-traffic-42-8 | 48) 7-university-35-4 | 49) 43-visit-300-6 | 50) 35-window-61-5 |

PROBLEM B

Total Access Time = Frequency * Access Time | (Total of All Nodes)
Total Access Time = 18995

PROBLEM C

(number - word - frequency - access time)
1) 47-plane-41-6 | 2) 44-ankara-74-5 | 3) 7-university-35-6 | 4) 32-class-93-4 | 5) 26-teacher-33-6 | 6) 17-club-70-5 | 7) 6-society-28-6 | 8) 27-professor-100-3 | 9) 14-memory-27-6 | 10) 34-pencil-65-5 | 11) 39-grade-26-6 | 12) 29-lab-92-4 | 13) 25-faculty-22-6 | 14) 33-board-64-5 | 15) 36-team-19-6 | 16) 42-television-205-2 | 17) 13-mouse-16-6 | 18) 8-sports-62-5 | 19) 3-city-15-6 | 20) 10-book-89-4 | 21) 38-group-14-6 | 22) 35-window-61-5 | 23) 37-software-13-6 | 24) 41-bag-99-3 | 25) 2-country-10-6 | 26) 16-student-60-5 | 27) 12-computer-7-6 | 28) 40-meeting-88-4 | 29) 1-people-6-6 | 30) 23-department-56-5 | 31) 9-economics-4-6 | 32) 43-visit-300-1 | 33) 11-library-3-6 | 34) 24-head-54-5 | 35) 4-news-2-6 | 36) 18-text-83-4 | 37) 5-population-1-6 | 38) 22-name-51-5 | 39) 31-clock-97-3 | 40) 15-game-50-5 | 41) 45-new york-77-4 | 42) 21-excel-49-5 | 43) 28-room-201-2 | 44) 19-algorithm-46-5 | 45) 46-dubai-76-4 | 46) 20-compiler-44-5 | 47) 30-kitchen-94-3 | 48) 49-car-43-5 | 49) 50-bus-75-4 | 50) 48-traffic-42-5 |

PROBLEM D

Total Access Time for New Tree = 11361

PROBLEM E

In order to reduce the total access time, we need to reduce the access times of nodes with high frequency values. For this, I kept the frequency values in the linked list in descending order. Then I have minimized the total access time by adding the frequencies in the linked list to a new tree sequentially.

Process returned 0 (0x0)   execution time : 0.053 s
Press any key to continue.
```