1) consider the pattern ~~$p=a^5$~~ $p=a^3ba$, construct the table and corresponding labeled directed graph used in the 'fast' pattern matching algorithm (1)

2) consider the pattern $p=aba^2b$. construct the table and corresponding labeled directed graph used in the 'fast' pattern matching algorithm. (4)

3.(a) Suppose $T=bbbaaabaa$. Now using the characters of T and the graph (or table) in problem (1), obtain the pattern p. and also find out the index no. (4)

3.(b) Repeat problem 3.(a) for the text $T=aaabccabb$ (4)

4.(a) Suppose $T=abbabaabb$. Now using the characters of T and the graph (or table) in problem (2), obtain the pattern p. and also find out the index no. (1)

4.(b) Repeat problem 4 (b) for the text $T=abaabbabaa$ (1)

5. consider the pattern $p=a^2b^2cbc$. construct the table and corresponding labeled directed graph used in the 'fast' pattern matching algorithm.

6. consider the pattern $p=a^3bc^2$. construct the table and corresponding labeled directed graph used in the 'fast' pattern matching algorithm.

7. Suppose $T = aaabcaabbcaaabccb$. Now using the characters of T and the graph (or table) in problem (6) find the pattern p. and also find the index no. (2)

8. Suppose $T = abcaabaccbcaabbcbc$. Now using the characters of T and the graph (or table) in problem (5) find the pattern p. and also find the index no. (3)

9. consider the pattern $P = 0001$ and $P = 111$. using the 'slow' pattern matching algorithm, find the number c comparisons to find the INDEX of P in the text $T = 1001000011001000l$. (1)

10. consider the pattern $P = 321$ and $P = 333$. using the 'slow' pattern matching algorithm, find the number c comparisons to find the INDEX of P in the text $T = 3201232302313210123$. (4)

11. consider the pattern $P = abc$. using the 'slow' pattern matching algorithm, find the number c comparisons to find the INDEX of P in the text : $T = a^{10}$ and $T = (cbc)^2bb(abc)^5$ (2)

12. consider the pattern $P = a^5b$. using the 'slow' pattern matching algorithm, find the number c comparisons to find the INDEX of P in the text : $T = (a^5c)^5$ and $T = a^3b^2ab(a^5b)^5$. (3)

13. Suppose U is the text 'MARC STUDIES ~~MARC~~ MATHEMATICS' Use INSERT to change U so that it reads:

a) MARC STUDIES ONLY MATHEMATICS. b) MARC STUDIES MATHEMATICS AND PHYSICS'. c) MARC STUDIES APPLIED MATHEMATICS.

14. Repeat ~~Repeat~~ problem (13) using SUBSTRING.