

A. Draw a while-loop flow chart to evaluate

$$\lim_{k \rightarrow \infty} (\mathbf{P}')^k \mathbf{v}$$

$$P = \begin{bmatrix} 0.1 & 0.45 & 0.45 \\ \frac{1}{3} & 0 & \frac{2}{3} \\ 0.5 & 0 & 0.5 \end{bmatrix} \quad v = (100 \ 600 \ 300)'$$

- B. Write matlab codes to implement your flow chart. Write down the limitation.
- C. Draw a while-loop flow chart to parse five A's in an online ATCG string.
- D. Write matlab codes to implement your flow chart.
- E. Draw a while-loop flow chart to parse five consecutive A's in an online ATCG string.
- F. Write matlab codes to implement your flow chart.
- G. Draw a while-loop flow chart to parse the following pattern $(AT)^k CG$
- H. Write matlab codes to implement your flow chart.
- I. Draw a while-loop flow chart to illustrate decimal to binary translation.
- J. Write matlab codes to implement your flow chart.
- K. Revise your codes for decimal to octal translation.