

NAME # SHAHKAR SALEEM

ID # 7943

SECTION # "B"

SUBJECT # NUMERICAL ANALYSIS

ASSIGNMENT # 1

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REVIEW OF INTEGRATION CONCEPT :-

This chapter expands on recent approaches to the concept of integration. It defines integration in an open non-normative fashion as "the process of becoming an accepted part of society". For the study of integration processes and policies a heuristic model is presented encompassing three analytically distinct dimensions in which people (may or may not) become an accepted part of society: (i) the legal-political, (ii) the socio-economic, and (iii) the legal-cultural-religious. Each dimension involves different parties (the immigrants themselves and the receiving society), different level of analysis (the individual, collective, and institutional levels),

(2)

and other relevant factors such as time and generations. For the study of integration policies, policy frames, concrete policy measures and both the vertical and horizontal aspects of integration.

(ii) APPLICATION OF TRAPEZOIDAL RULE AND SIMPSON'S

RULE IN ENGINEERING :-

The trapezoidal rule is based on the method in which curve f is approximated with straight line L as shown. The area bounded by the curve f , lines $x = a$ & $x = b$ and the axis x is approximated.

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by the area of the trapezoid
through the points $A(a, f(a))$ and
 $B(b, f(b))$ is

$$L(x) = \frac{f(b) - f(a)}{b - a} (x - a) + f(a)$$

SIMPSON'S Rule :-

Simpson's rule is a numerical method that approximates the value of a definite integral by using quadratic functions.

Simpson's Rule is based on the fact that given three points, we can find the equation of a quadratic through those points.

To obtain an approximation of the definition.