

(b) Describe the theorem on the (total) error in Euler's method. Comment on its significance.

(c) Define local truncation error for single-step methods.

(d) Define the Taylor method of order n and explain why it is not a general purpose method.

(e) Are Runge-Kutta methods general purpose? Why or why not?

(f) Describe RK45 (or any adaptive single step method).

(20) 3. Multistep methods

(a) Give a coarse derivation of the Adams-Bashforth explicit multistep methods.

(b) Describe what an implicit multistep method is.