BCA/CON : 302 (AK)

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(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : CON–302

(Computer-Oriented Numerical Methods)

(PART : A—OBJECTIVE)

(*Marks* : 20)

KEY ANSWERS FOR OBJECTIVES

1. Match the items of Column—A with the items of Column—B and place the codes of Column—B in the brackets provided : 1×4=4

(a) 2

(b) 3

(c) 4

(d) 1

2. State whether the following statements are *True (T)* or *False (F)* by putting a Tick (✓) mark : 1×5=5

(a) True

(b) False

(c) False

(d) False

(e) False

3. Answer the following in brief : 2×3=6

(a) Let

$$x_0 \quad x_1 \quad f(x_1) \quad \frac{x_2 \quad x_1}{f(x_2) \quad f(x_1)}$$

If $f(x_0) \quad f(x_1) \quad 0$

Set $x_2 \quad x_0$

Otherwise

Set $x_1 \quad x_0$

(b) The four types of errors are the following :

(i) Inherent errors

(ii) Numerical errors

(iii) Modelling errors

(iv) Blunders

(v) Absolute and relative errors

(c) The two phases of Gauss' elimination method are the following :

(i) *Forward elimination phase* : This phase is concerned with the manipulation of equations in order to eliminate some unknowns from the equations and produce an upper triangular system.

(ii) *Back substitution phase* : This phase is concerned with the actual solution of the equations and uses the back substitution process on the reduced upper-triangular system.

4. Choose the most appropriate answer from the given options by putting a Tick (✓) mark in the brackets provided : 1×5=5

(a) *(ii)*

(b) *(iii)*

(c) *(ii)*

(d) *(iii)*

(e) *(ii)*

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