Subject Code : BMCA/BC–503

Booklet No. A

Date Stamp ....

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To be filled in by the Candidate

BA / BSc / BCom / BBA / BCA 5th Semester End Term Examination, **2020**

Subject ....

Paper ....

To be filled in by the Candidate

BA / BSc / BCom / BBA / BCA

5th Semester End Term Examination, **2020**

Roll No. ....

Regn. No. ....

Subject ....

Paper ....

DESCRIPTIVE TYPE

Booklet No. B ....

INSTRUCTIONS TO CANDIDATES

1. **The Booklet No. of this script should be quoted in the answer script meant for descriptive type questions and vice versa.**

2. **This paper should be ANSWERED FIRST and submitted within 1 (one) Hour of the commencement of the Examination.**

3. **While answering the questions of this booklet, any cutting, erasing, over-writing or furnishing more than one answer is prohibited. Any rough work, if required, should be done only on the main Answer Book. Instructions given in each question should be followed for answering that question only.**

Signature of Scrutiniser(s)

Signature of Examiner(s)

Signature of Invigilator(s)

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(5th Semester)

COMMERCE

Paper No. : BC–503

(Business Mathematics and Computer Applications)

(PART : A—OBJECTIVE)

(*Marks* : 25)

The figures in the margin indicate full marks for the questions

SECTION—I

(*Marks* : 15)

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

(a) The determinant obtained by replacing the co-factors of each element of the given determinant is called inverse determinant.

(T / F)

(b) If |A| 0, then system of linear equations is consistent and has a unique solution.

(T / F)

(c) The method of obtaining the derivative of implicit functions is known as chain rule.

(T / F)

(d) OS is an interface between the user and the hardware.

(T / F)

(e) Hexadecimal number system used with base 8.

(T / F)

2. Choose the correct answer and place its code in the brackets provided : 1×10=10

(a) The decimal equivalent of the binary number 111 is

(i) 1

(ii) 3

(iii) 7

(iv) 14 [   ]

(b) A square matrix *A* is called involutory if

(i) A^2 *A*

(ii) A^2 *I*

(iii) *A A I*

(iv) *A A* [   ]

(c) The process of finding the derivative of a function is known as

   (i) differentiation

   (ii) integration

   (iii) constant function

   (iv) logarithmic function   [   ]

(d) 1 KB (kilobyte) is equal to

   (i) 1024 bytes

   (ii) 1024 megabytes

   (iii) 1024 gigabytes

   (iv) 1024 terabytes   [   ]

(e) To find out the maximum or minimum value of a function, if $\dfrac{d^3y}{dx^3}$ 0, then the function is

   (i) zero

   (ii) maximum

   (iii) minimum

   (iv) neither maximum nor minimum   [   ]

(4)

(f)   The co-factor of A_{23} in $\begin{vmatrix} 2 & 4 & 5 \\ 6 & 2 & 0 \\ 3 & 2 & 6 \end{vmatrix}$ is

    (i) −16

    (ii) 16

    (iii) 30

    (iv) −30   [   ]

(g)   'Heart' of the computer system is the

    (i) input unit

    (ii) memory unit

    (iii) control unit

    (iv) CPU   [   ]

(h)   Matrix addition is

    (i) only commutative

    (ii) only associative

    (iii) commutative and associative both

    (iv) None of the above   [   ]

(5)

(i) If a determinant is expanded by any row or by any column, then the result will be

   (i) different

  (ii) same

(iii) zero

(iv) None of the above   [   ]

(j) A computer possesses

   (i) feelings

  (ii) common sense

(iii) experience

(iv) None of the above   [   ]

(6)

3. Answer/Write on the following :   2×5=10

(a) Find AB, if A (2, 4, 6) and B $5 \dfrac{1}{3}$.

(7)

(b) Distinguish between matrices and determinants.

(c) Chain rule

(d) Define binary system.

(e) Distinguish between LAN and WAN.

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