

( 4 )

Total Pages—04

PG/2nd Sem/COS-204/24

3. Answer *any one* question : 8

(a) Write a C program to search an element in a list.

(b) Write a C program to display the Fibonacci series up to the limit  $n$ .

[Internal Assessment—5+5]

★ ★ ★

2 0 2 4

**M.Sc. 2nd Semester Examination**

**Computer Science**

**PAPER : COS-204**

**( Computer Fundamentals )**

*Full Marks : 40*

*Time : 2 hours*

*The figures in the right-hand margin indicate marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

Answer from both the Sections

**SECTION—A**

(M1/Marks : 20 )

**( Computer Fundamentals )**

1. Answer *any two* questions : 2×2=4

(a) What is a computer?

(b) Define bit, byte and nibble.

(c) Find the value of  $X$ , where  $(23)_{10} = (X)_2$ .

(d) Write the different types of memory of a digital computer.

( 2 )

2. Answer *any two* questions :  $4 \times 2 = 8$

(a) What are the characteristics of a digital computer? Explain. 4

(b) Find the decimal equivalent of the following :  $2 + 2 = 4$

(i)  $(2614)_8$

(ii)  $(7)_{16}$

(c) Describe different types of computer based on applications. 4

(d) Write a short note on real-time operating system. 4

3. Answer *any one* question : 8

(a) With the help of a block diagram explain the different components of a computer system. 8

(b) Write down the answer of the following : 8

(i)  $(777)_8$   $(?)_2$

(ii)  $(11111)_2$   $(?)_{16}$

(iii)  $(11111)_{16}$   $(?)_2$

(iv)  $(1020)_{10}$   $(?)_8$

/993

( Continued )

( 3 )

**SECTION—B**

(M1/Marks : 20 )

1. Answer the following questions (*any two*) :

$2 \times 2 = 4$

(a) Write four keywords used in C programming.

(b) What are the advantages of using the function in a C program?

(c) What is the difference between a 'while' and a 'do-while' loop?

(d) Write four properties of an array.

2. Answer the following questions (*any two*) :

$4 \times 2 = 8$

(a) Describe the conditional operator with a proper example.

(b) Explain any of the loop with a proper diagram.

(c) Describe the break and continue statements.

(d) Write a C program to check leap year or not.

/993

( Turn Over )