I/39—22   Roll No. ....

Annual Examination, 2022

B.Sc. Part II

COMPUTER SCIENCE

Paper I

(Computer Hardware)

Time : 3 Hours]   [MAXIMUM MARKS : 50

Note : *Section 'A' is Objective type and is compulsory. It should be written on the **first page** of Answer-book. Section 'B' is Short answer type and Section 'C' is Long answer type.*

SECTION 'A'

(Multiple Choice Questions)

Choose the correct answer :   **1×10=10**

(i)   ....computers are lower to mainframe computers in terms of speed and storage capacity.

(a) Mainframes   (b) Hybrid

(c) Super   (d) Mini.

(ii)   Processor which is complex and expensive to produce is.......... .

(a) CISC   (b) RISC

(c) EPIC   (d) Multi-core.

P.T.O.

(iii) The addressing mode, where you directly specify the operand value is........ .

(a) Relative   (b) Definite

(c) Direct   (d) Immediate.

(iv)   In which of the following addressing mode, the offset is obtained by adding displacement, with the contents of Sl ?

(a) Register mode (b) Direct mode

(c) Indexed mode   (d) Based mode.

(v)   The memory implemented using the semiconductor chips is.......... .

(a) Main   (b) Cache

(c) Registers   (d) Secondary.

(vi)   Because of virtual memory, the memory can be shared among.......... .

(a) Instructions   (b) Processes

(c) Threads

(d) None of the mentioned.

(vii) The ALU gives the output of the operations and the output is stored in the.......... .

(a) Flags   (b) Output Unit

(c) Registers   (d) Memory Devices.

I/39—22

1. Discuss dumb, smart and intelligent terminals computer network.

Or

Describe the major components of computer.

2. Explain instructions for INTEL 8085.

Or

What is Control signal ? Explain some special control signals.

3. Describe magnetic bubble memory.

Or

Write the functions of memory controller.

4. Discuss I/O processor with block diagram.

Or

Explain I/O port and serial data transfer scheme.

5. Describe about any *two* system softwares.

Or

What is program design ? Explain the steps involved in program design.

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(viii) What is the order decided by a processor or the CPU of a controller to execute an instruction ?

(a) Decode, fetch, execute

(b) Fetch, decode, execute

(c) Fetch, execute, decode

(d) Execute, fetch, decode.

(ix) ....is designed to solve a specific problem or to do a specific task.

(a) Application Software

(b) Utility Software

(c) System Software

(d) User.

(x) A.........is a directed graph that describes the flow of execution control of the program.

(a) Algorithm

(b) Flow graph

(c) Complexity curve

(d) Flowchart.

P.T.O.

SECTION 'B'

(Short Answer Type Questions) 3×5=15

Note : Attempt **five** *questions from this Section by selecting one question from each question.*

1. Define user interface.

Or

What is parallel processing ?

2. What is time diagram ?

Or

What is Register ?

3. What is optical disk ?

Or

Why Virtual memory ?

4. What are the output devices ?

Or

Explain Light pen.

5. Define debugging.

Or

What is operating system ?

SECTION 'C'

(Long Answer Type Questions) 5×5=25

Note : Attempt **five** *questions from this Section by selecting one question from each question.*