



SYMBIOSIS INTERNATIONAL (DEEMED UNIVERSITY)

(Established under section 3 of the UGC Act, 1956)

Re-accredited by NAAC with 'A' grade (3.58/4) | Awarded Category – I by UGC

Seat No.						
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Institute: (0701) SYMBIOSIS INSTITUTE OF TECHNOLOGY, PUNE

Programme: (070122, 070124) BACHELOR OF TECHNOLOGY (CS, IT)

Batch: 2017-21, 2018-22, 2019-23

Semester: III

Course: Computer Organization

Course Code: 0701220304 CS; 0701240304 IT

Date: 10/06/2021

Maximum Marks: 45

Day: Thursday

Time: 3:00 pm – 4:30 pm

Instructions:

1. All questions are compulsory.
2. Make suitable assumptions wherever required.
3. Neat diagram must be drawn whenever necessary.

- Q.1** a) Draw a flowchart of restoring binary division. Perform $17 / 3$. **6 CO1**
b) Explain different interconnection structures with neat diagram. **6 CO1**
- Q.2** a) Explain block diagram of 8086 microprocessor. **6 CO2**
b) Classify different addressing modes. **5 CO2**
- Q.3** Explain with example and neat diagram microinstruction format. **5 CO3**
- Q.4** a) Main memory has 3 page frames and processor requires pages from virtual memory in following order: **6 CO4**
5, 7, 6, 0, 7, 1, 7, 2, 0, 1, 7, 1, 0
Show implementation of First-In First-Out, Least Recently Used and Optimal Algorithm. Compare page faults.
- b) Explain how mapping is performed in direct mapping cache organization with suitable diagram. **6 CO4**
- Q.5** Demonstrate working mechanism of computer's input device: Scanner. **5 CO5**


