# CONTINUOUS INTERNAL EVALUATION- 2

| Dept: **CSE** | Sem / Div: **4CS A & B** | Sub: **Microcontroller & Embedded Systems** | S Code: **18CS44** |
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| Date: 25.06.2021 | Time: 3:00-4:30 | Max Marks: 50 | Elective: N |
| Note: Answer any 2 full questions, choosing one full question from each part. | | | |

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| QN | | Questions | Marks | RBT | COs |
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| | | **PART A** | | | |
| 1 | a | Write a function in assembly that can sum any number of integers. The arguments should be the number of integers to sum followed by a list of the integers | 9 | L3 | CO2 |
| | b | What is an Embedded System? Explain the different classifications of embedded systems. Give example for each | 9 | L2 | CO3 |
| | c | Differentiate –<br>(i) Micrporcessors versus Microcontrollers<br>(ii) CISC versus RISC Processors | 7 | L3 | CO3 |
| | | **OR** | | | |
| 2 | a | Justify the statement with Examples: By combining conditional execution and conditional setting of the flags, you can implement simple if statements without any need for branches. | 9 | L3 | CO2 |
| | b | What is Embedded System? Illustrate any four purpose of embedded systems | 9 | L3 | CO3 |
| | c | Differentiate –<br>(i) CPLD versus FPGA<br>(ii) SRAM versus DRAM | 7 | L3 | CO3 |
| | | **PART B** | | | |
| 3 | a | What is Programmable Logic Device (PLD)? What are the different types of PLDs? Explain advantages of PLDs in embedded system design | 9 | L2 | CO3 |
| | b | What is Stepper Motor? Explain different step modes. Also, explain the role of stepper motor in embedded applications | 9 | L2 | CO3 |
| | c | Explain the concept of memory shadowing. Give its advantages | 7 | L3 | CO3 |
| | | **OR** | | | |
| 4 | a | What are different types of memories used in embedded system design | 9 | L2 | CO3 |
| | b | Explain the different on-board communication interfaces in brief | 9 | L2 | CO3 |
| | c | What is Programmable Peripheral Interface (PPI)? Explain the interfacing of 8255 PPI with an 8-bit processor/ controller | 7 | L3 | CO3 |