Reg. No. \_\_\_\_\_\_\_\_\_\_\_\_\_



**End Semester Examination – Nov / Dec – 2019**

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| **Code :** | **14CS2045** | **Duration :** | **3hrs** |
| **Sub. Name :** | **SYSTEM SOFTWARE** | **Max. Marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Elaborate the various addressing modes in SIC/XE architecture with suitable example. | CO2 | 10 |
| b. | Illustrate the working principle of CRAY T3E architecture with neat sketch. | CO2 | 10 |
| **(OR)** | | | | |
| 2. | a. | Recall the different segment register in Pentium Pro architecture . | CO2 | 5 |
| b. | Explain SPARC architecture and discuss about the call and branch instruction in SPARC. | CO2 | 10 |
| c. | Write a SIC program to add two numbers. | CO1 | 5 |
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| 3. | a. | Write the pseudo code of the 2 pass assembler algorithm and List its data structures . | CO3 | 10 |
| b | Illustrate how a source code is converted to object program by an assembler with a suitable example. | CO3 | 10 |
| **(OR)** | | | | |
| 4. | a. | Discuss any three machine independent assembler features in detail. | CO3 | 20 |
|  |  |  |  |  |
| 5. | a. | Write the two pass loader algorithm that loads the assembled code in to memory. | CO3 | 10 |
| b. | Write the loader algorithm to load the assembled code in the pre determined memory location. | CO3 | 10 |
| **(OR)** | | | | |
| 6. | a. | Explain the working principle of dynamic linker with a neat sketch. | CO3 | 14 |
| b. | Compare and contrast linking loader with linkage editor. | CO3 | 6 |
|  |  |  |  |  |
| 7. | a. | Compare conditional macro with unconditional macro expansion with suitable example. | CO3 | 10 |
| b. | What is the disadvantage of implicitly specifying labels in macros? and discuss how to overcome come it? | CO3 | 10 |
| **(OR)** | | | | |
| 8. |  | Write the pseudo code for the one pass macro processor to expand the source code. | CO3 | 20 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Discuss about various levels of data description in Database Management System(DBMS) and discuss the merits of DBMS over file system. | CO3 | 10 |
| b. | Summarize the various capabilities and functions of interactive debugging system. | CO3 | 10 |