Roll No.: ……..

SATYUG DARSHAN INSTITUTE OF ENGINEERING & TECHNOLOGY

(Department of Computer Science & Engineering)
CSE- Online 2nd Sessional Examination (May, 2020)
Computer Organization & Architecture (PCC-CS-402)

Time: 40 Minutes ***Maximum Marks: 30***

Note: *(i) All questions are compulsory.*

(ii) ***Section-A****, consist of 10 questions (****1 Marks each*** *)*

(iii) ***Section-B****, consist of 4 questions,* ***(5 Marks each****).*

(iv) Exam starts at ***10:00 AM****. After completing the answer sheet, attach the answer sheet and email to* ***ashok.madaan@satyug.edu.in*** *.*

*(v) In the subject line of email ,****write your complete name and roll number.***

*(vi) No answer sheet will be evaluated if received after stipulated time i.e.****10:40 AM.***

SECTION-A

Question-1

a) An address space is specified by 32 bits and the corresponding memory space by 16 bits. If a page consists of 2K words, how many pages are blocks are there in system?

b) Match the following

(a) Status Command	**(i)** Move paper position
(b) Control command	**(ii)** Reads value of a register
(c) Data Input Command	**(iii)** Check if device power is on
(d) Data Output Command	**(iv)** Writes value of a register

c) In I/O interface the address can be decided by ……..

d) In a ……..., the source that interrupts supplies the branch information to the CPU.

e) Write the difference between Strobe and handshaking method.

f) What is the task of CPU in interrupt initiated I/O transfer mode?

g) Why data register is bidirectional but control register and status register are unidirectional in I/O interface unit?

h) What is the cache coherence problem?

i) Define cycle stealing.

j) How many memory words are in 8086 microprocessor? **(10*1=10)**

SECTION-B

Question 2. Differentiate between programmed I/O and interrupt driven I/O. What is basic advantage of using interrupt initiated data transfer over transfer under program control without interrupt? **(5)**

Question 3. Discuss the memory table in a paged system with an example. Consider an address space is specified by 24 bits and the corresponding memory space by 16 bits and the page or block consists of 2K words. **(5)**

Question 4. Discuss the asynchronous data transfer methods that are required for transmitting the data between two communicating units. **(5)**

Question 5. Explain the control unit which is used in RISC machine architecture. **(5)**