

Total No. of Printed Pages—4

6 SEM TDC CBC G 1

2015

(May)

COMPUTER SCIENCE

(General)

Course : 601

(Computer Organization and Architecture)

Full Marks : 48

Pass Marks : 19

Time : 2 hours

*The figures in the margin indicate full marks
for the questions*

1. Choose and write the correct option : $1 \times 6 = 6$

(a) The decimal equivalent of the hexadecimal number $(13.28)_{16}$ is

(i) $(396)_{10}$

(ii) $(392)_{10}$

(iii) $(400)_{10}$

(iv) $(393)_{10}$

P15—500/644

(Turn Over)

(2)

(b) — directs data from input to selected output line.

(i) Demultiplexer

(ii) Multiplexer

(iii) Coder

(iv) Register

(c) The ALU makes use of — to store the intermediate results.

(i) accumulators

(ii) registers

(iii) heap

(iv) stack

(d) — bus structure is usually used to connect I/O devices.

(i) Single

(ii) Multiple

(iii) Star

(iv) RAM

(Continued)

(3)

(e) The small extremely fast RAMs are called

(i) cache

(ii) heap

(iii) accumulators

(iv) stacks

(f) Which of the following addressing modes is not possible in 8085?

(i) Indexed addressing

(ii) Indirect addressing

(iii) Direct addressing

(iv) Indirect register address

2. Answer the following :

2×6=12

(a) Draw a 2 to 1 line multiplexer circuit.

(b) What is instruction format?

(c) Which register in CPU is responsible for sequencing the control of execution?

(d) Define cache hit, cache hit time and cache miss penalty.

(e) What is virtual memory?

(f) What is interrupt?

P15—500/644

(Turn Over)

P15—500/644

2. Answer any five from the following :

6+3=30

(a) Explain the working of A0 to A7 pins of 8085. Draw the block diagram of 8085 microprocessor.

2+2=6

(b) Explain, in detail, CPU register.

6

(c) Explain, in brief, direct memory access.

6

(d) Explain the importance of secondary memory in implementing virtual memory.

6

(e) Explain various addressing modes commonly used in processors.

6

(f) Explain with diagram and truth table J-K flip-flop.

6
