B. N. BANDODKAR COLLEGE OF SCIENCE, THANE

F.Y.B.SC. (INFORMATION TECHNOLOGY) SEMESTER – II ADDITIONAL EXAMINATION; JUNE 2015

COURSE CODE– USIT203

Duration: 2½ Hrs **Total Marks: 75**

N.B. 1. All questions are compulsory.

Q. 1 **Answer *any two* out of following** **10**

a Explain different types of Random Access Memory (RAM).

b Write note on Encoder.

c Explain memory organization in detail.

d Write note on Buffer.

Q. 2 **Answer *any two* out of following** **10**

a What are the functions of microprocessor?

b Explain flag register in 8085.

c Write note on Address Decoding.

d Draw the block diagram of microprocessor. Explain each of its blocks.

Q. 3 **Answer *any two* out of following** **10**

a What is data transfer instructions? Explain any 3 data transfer instructions.

b Discuss various arithmetic instructions used in 8085.

c Discuss various control instructions in 8085.

d Explain the use of following 8085 instructions

i) SUB ii) JNZ iii) HLT iv) MVI v) JC

Q. 4 **Answer *any two* out of following** **10**

a Explain organization of computer in brief.

b What is PCI bus? Why PCI bus is needed?

c What is bus? Explain different types of bus.

d Write note on Virtual memory

Q. 5 **Answer *any two* out of following** **10**

a Write note on Program status word (PSW).

b Explain different flags used in 8051.

c Write note on Stack pointer.

d State the features of 8051 microcontroller.

Q. 6 **Answer *any two* out of following** **10**

a Write note on Internal ROM.

b What is interrupt? How it works?

c What is port? Explain its use.

d Explain register addressing mode in 8051 microcontroller.

Q. 7 **Answer *any three* out of following** **15**

a Write note on Encoder.

b Define : i) Instruction cycle ii) Machine cycle.

c Write a 8085 mnemonics to subtract two numbers.

d Write note on Cache memory.

e Explain the oscillator and clock in the 8051.

f With an example, explain Immediate and Register addressing in 8051.

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