Reg. No. : ....

Sub. Code : GMCS 4 A/
GMSE 4 A

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2018

Fourth Semester

Computer Science/Software Engineering — Main

Major Elective — MICROPROCESSOR

(For those who joined in July 2012-2015)

Time : Three hours   Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The ——————— is a programmable integrated device that has computing and decision-making capability similar to the CPU.

    (a) microcontroller

    (b) microprocessor

    (c) microcomputer

    (d) minicomputer

The ——————— is a 7 bit alphanumeric code with 128 combinations.

(a) Extended ASCII   (b) ASCII

(c) UNICODE   (d) Binary code

——————— is a group of devices that can perform functions such as initiate, internal and peripheral operations.

(a) MPU   (b) CPU

(c) ALU   (d) Control unit

——————— is made up of flip-flops and its stores the bit as voltage.

(a) R/WM   (b) DRAM

(c) SRAM   (d) PRAM

——————— is an opcode used to stops executing and enters wait state.

(a) NOP   (b) STOP

(c) HLT   (d) Exit

Instruction used for rotate each bit in the accumulator to the left through the carry is ———————.

(a) RAR   (b) RLA

(c) RAL   (d) RRC

7. ——————— are used primarily to keep track of events.

   (a)   stacks   (b)   registers

   (c)   counters   (d)   time delays

8. A stack is ———————.

   (a)   8-bit register in the microprocessor

   (b)   16-bit register in the microprocessor

   (c)   a set of memory locations in R/WM

   (d)   16-bit memory address stored in the program counter.

9. ——————— instruction do not affect the flag.

   (a)   arithmetic

   (b)   data transfer

   (c)   logical

   (d)   all the above

10. A counter design generally includes a ——————— loop.

   (a)   double   (b)   delay

   (c)   counter   (d)   condition

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

(a) Write short notes on high level languages.

Or

(b) Describe the 8085 arithmetic operations.

(a) State the primary operations of MPU.

Or

(b) Write short notes on Tri-state devices.

(a) Explain unconditional jump.

Or

(b) Discuss about dynamic debugging.

(a) List out the common errors in counter and time delay programs.

Or

(b) Discuss about CALL and RET instruction.

15. (a) Write down the steps for Binary to [HCD] conversion.

Or

(b) Write instruction to display the con[tent] stack pointer register at output ports.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain the microprocessor contro[lled] temperature system.

Or

(b) Discuss about the 8085 programming mo[del].

17. (a) Write detail notes on 8085 internal [data] operations and its registers.

Or

(b) Draw the 8085 pin diagram and explain.

18. (a) Write detail notes on logical operation[s].

Or

(b) Discuss about Block transfer of data by[tes]

(a)   Describe the counter design with time delay.

Or

(b)   State the detail notes on stack operations.

(a)   Describe the BCD-to-Seven segment-LED code conversion.

Or

(b)   Write detail notes on BCD Addition.