

MGKVP University Question Paper
B.C.A. Third Semester
Examination, 2017
Third Paper
(Computer Architecture & Assembly Language)
MGKVPonline.com

Time : Three Hours

Maximum Marks : 75

Note : Attempt any five questions. All questions carry equal marks.

Note : The answers to short questions should not exceed 200 words and the answers to long questions should not exceed 500 words.

1. Draw the basic functional blocks of a microprocessor. Explain the function of each block. What do you understand by instructions and Instruction codes? Explain with examples. 15
2. Explain the terms given below : 5×3
 - a) General purpose register and special purpose register
 - b) Memory addresses and memory locations
 - c) Arithmetic Logic Micro-Operation/ Shift micro-operations.
3. What is reduced computer? Discuss about RISC and CISC in detail. What is array processing? 15
4. What is Arithmetic Algorithm? Discuss integer multiplication using shift and add process. What do you mean by Floating Point representation? 15
5. What do you mean by data transfer? Discuss the different type of data transfer. 15
6. Explain the function of following: 5×3
 - (a) Input/Output interface
 - (b) Peripheral devices
 - (c) Input/Output Processor
7. Draw the Logic pinout diagram of the 8085 microprocessor with pinout & signals. Classify six groups of signal in this processor and explain each. 15
8. What do you mean by assembly language programming? Write an Assembly Language program for the transfer of a block of data from the memory locations 2500 H-4 2507 H to 3500 H to 3507 Memory Location. 15
9. Discuss macros and subroutine with suitable example. Explain the importance of macros and subroutine in a program. 15
10. Write short notes on any three of following: 5×3
 - (a) Cache memory
 - (b) Stack organizations
 - (c) Divisor algorithms.
 - (d) Input-Output Programming.
