NBH-003-004203 Seat No. _____

B. Sc. (I.T.) (Sem. II) (CBCS) Examination
April / May - 2017
CS-09 : Computer Organization & Architecture
(Old Course)

Faculty Code : 003
Subject Code : 004203

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

1 Answer the following : **20**

(1) What is logic gate?

(2) What is boolean algebra?

(3) What is truth table?

(4) What is BG signal?

(5) What is BR signal?

(6) What is Counter?

(7) What is RPN ?

(8) Give definition of flip flop.

(9) What is AND Gate?

(10) Explain OR Gate.

(11) Explain SOP.

(12) What is I.C.?

(13) Explain VLSI.

(14) Explain Digital Computer.

(15) What is BIT ?

(16) What is MSI ?

(17) Explain SISO.

(18) What is OPR?

(19) Explain SEL-A.

(20) What is PUSH and POP operations ?

2 (a) Answer the following : (any **three**) **6**

(1) Explain ALU in detail.

(2) Explain De-Morgan's theorem.

(3) Explain Don't care condition.

(4) What is combinational circuit ? Explain half adder in detail.

(5) Explain full adder in detail.

(6) Explain parity BIT.

(b) Answer the following : (any **three**) **9**

(1) Explain de-mux in detail.

(2) Explain 8*3 line encoder.

(3) Explain mux in detail.

(4) Explain Logic gates in detail (any three)

(5) What is IOP? Explain in detail.

(6) Explain Universal gate in detail.

(c) Answer the following : (any **two**) **10**

(1) What is DMA ? Explain in detail.

(2) Explain general register ORG.

(3) What is sequential circuit ? Explain flip flop in detail.

(4) Explain register stack in detail.

(5) Explain memory stack in detail.

3 (a) Answer the following : (any **three**) **6**

(1) Explain IC in detail.

(2) Explain mode of transfer.

(3) AC register in detail.

(4) Explain input output interface.

(5) Short note : Bus and Counter.

(6) What is truth table?

(b) Answer the following : (any **three**) **9**

(1) Explain interrupt in detail.

(2) Explain component of CPU.

(3) Explain K'map with example.

(4) Explain polish notation in detail.

(5) Explain control word and fixed point representation in detail.

(6) Explain De-coder in detail.

(c) Answer the following : (any **two**) **10**

(1) Explain Registers with its types

(2) Explain DMA controller.

(3) Explain memory bus in detail.

(4) Explain major components of CPU in detail.

(5) Explain I/O BUS in detail.
