S. S. JAIN SUBODH P.G.(AUTONOMOUS) COLLEGE, JAIPUR

Affiliated to University of Rajasthan, Jaipur

I CIA BCA II Semester Test, Feb. 2018

Computer Architecture

Max. Marks: 30 **Duration**: 1 Hour

Instructions to the Candidates

Note:- **Section A** : Consists of three short answer type questions, each carrying 7.5 marks. The candidates are required to attempt any two (7.5x2=15 marks)

Section B : Consists of one descriptive question of 15 marks with an internal choice.

Section A

(1) What are Logic Gates ? Explain NAND, NOR and Ex-OR gates.

(2) Define De Morgan's Laws.

(3) Explain Full Adder and Full Subtractor in brief.

Section B

(4) What is Multiplexer ? Describe 8 to 1 Multiplexer with block diagram, truth table and circuit diagram.

OR

Explain BCD Seven Segment Decoder and Decimal to BCD Encoder with Truth Table and Block diagram.

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I CIA BCAII Semester Test ,Feb - 2018

Internet and Web Technology

Max. Marks: 30 **Duration**: 1 Hour

Instructions to the Candidates

Note:- **Section A** : Consists of three short answer type questions, each carrying 7.5 marks. The candidates are required to attempt any two (7.5x2=15 marks)

Section B : Consists of one descriptive question of 15 marks with an internal choice.

Section A

(1) Define the following terms :

(a) Web Server

(b) Web Client

(c) IP address

(2) What is Internet ? Explain its applications in brief.

(3) How do we create table in HTML ? Discuss any three attributes of table tag.

Section B

(4) What is TCP/IP ? Explain different layers of TCP/IP.

OR

Explain the following tags and their attributes with examples :

(a) <body>

(b) <marquee>

(c) <font>

(d) <img>

(e)

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I CIA BCA II Semester Test ,Feb- 2018

Object Oriented Programming Concepts

Max. Marks: 30 **Duration**: 1 Hour

Instructions to the Candidates

Note:-**Section A** : Consists of three short answer type questions, each carrying 7.5 marks. The candidates are required to attempt any two (7.5x2=15 marks)

Section B : Consists of one descriptive question of 15 marks with an internal choice.

Section A

(2) Explain the cin and cout objects in C ++

(2) Define data types in C++

(3) What is Scope Resolution Operator ?

Section B

(4) What are the important features of Object Oriented Programming ?

OR

Explain the different types of operators in C++ Programming.

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II CIA BCA II Semester Test, April- 2018

Computer Architecture

Max. Marks: 30 **Duration**: 1 Hour

Instructions to the Candidates

Note:- **Section A** : Consists of three short answer type questions, each carrying 7.5 marks. The candidates are required to attempt any two (7.5x2=15 marks)

Section B : Consists of one descriptive question of 15 marks with an internal choice.

Section A

(1) What is edge triggered flip flop? Define any one.

(2) Explain D flip flop using NAND and NOR gate.

(3) Explain T Flip Flop along with its circuit diagram and truth table.

Section B

(4) What are Registers? Explain SISO and PISO shift registers with suitable diagram.

OR

What are counters? Explain BCD and Decade counter in detail.

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II CIA B.C.A. II Semester Test, Feb. 2018

Digital Electronics & Circuits

Max. Marks: 30 **Duration**: 1 Hour

Instructions to the Candidates/ आवश्यक निर्देश :–

Note:- Each paper consists of two major questions with internal choice. Students are required to answer any one question from each paper.

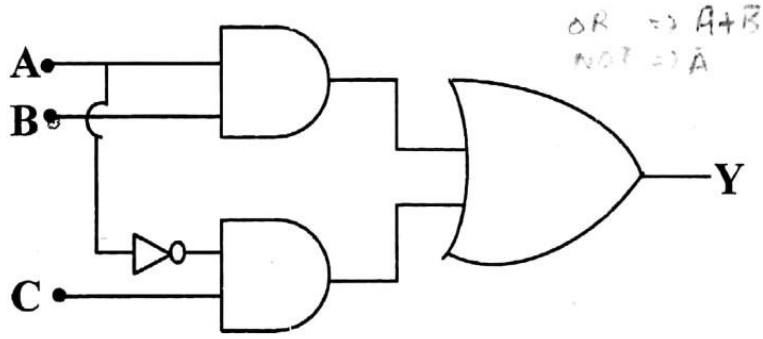
सुचना– प्रत्येक प्रश्नपत्र में एक प्रमुख प्रश्न पूछे जायेगें। परीक्षार्थियों को कोई एक प्रश्न करना अनिवार्य है।

Q.1 (a) Realize Exclusive – OR Gate operation, using basic Logic Gates (NOT, OR, AND).

(b) Synthesis of Basic Logic Gates by using NAND Gate.

OR

(c)



Write down Boolean (Logic) expression for this given logic circuit and make truth table also.

(d) Synthesis of Basic Logic Gates using NOR Gate.

Q.2 (a) Represent the following expressions on K-map.

(i) $\Sigma M(3,5,2,7,6)$

(ii) $\pi M\ (0,1,4)$

(b) Simplify this logic expression using K-map.

$y = \bar{A}\bar{B}C + \bar{A}BC + ABC + A\bar{B}\bar{C}$

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II CIA BCA II Semester Test, April, 2018

Object Oriented Programming Concepts

Max. Marks: 30 **Duration**: 1 Hour

Instructions to the Candidates

Note:-**Section A** : Consists of three short answer type questions, each carrying 7.5 marks. The candidates are required to attempt any two (7.5x2=15 marks)

Section B : Consists of one descriptive question of 15 marks with an internal choice.

Section A

(1) Define Constructor and illustrate types of constructor with an example.

(2) Define Accessibility/Visibility Specifiers and show its functionality through a program.

(3) Define Destructor with an example.

Section B

(4) Define these terms with suitable example:

a. Class

b. Objects

c. Function Overloading

OR

What are Friend Function and Friend Class? Explain with suitable example.

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II CIA BCA II Semester Test , April - 2018

Digital Electronics Circuits

Max. Marks: 30 **Duration**: 1 Hour

Instructions to the Candidates

Note:- Paper consists of two descriptive questions with internal choice, each carrying 15 marks.

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(1) What are Logic Families? Describe RTL gate.

OR

Describe the characteristics of logic families.

(2) Describe a circuit of ECL logic family.

OR

Give full form of MOSFET and explain PMOS.
(P-channel MOS)

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Internet and Web Technology

Max. Marks: 30 **Duration**: 1 Hour

Instructions to the Candidates

Note:- **Section A** : Consists of three short answer type questions, each carrying 7.5 marks. The candidates are required to attempt any two (7.5x2=15 marks)

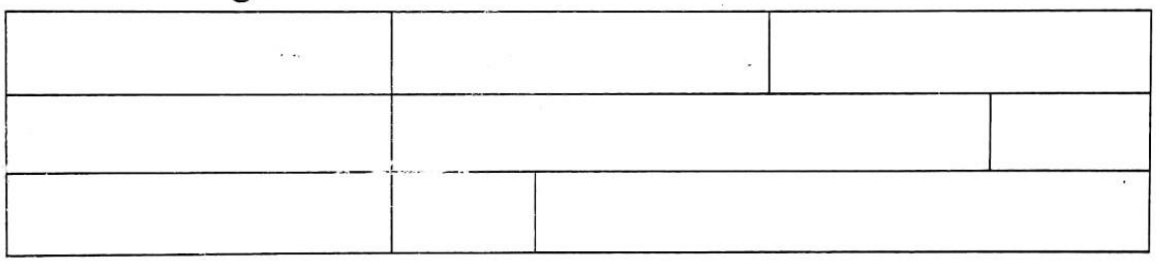
Section B : Consists of one descriptive question of 15 marks with an internal choice.

Section A

(1) Explain font attributes used in CSS with example.

(2) How do we use DIV Tag? Explain with suitable example.

(3) Create following frame in HTML:



Section B

(4) What is CSS? What are the different types of Style Sheets in CSS? Explain with examples.

OR

How to create Forms in HTML? Explain following form elementes with suitable examples.

(a) Text fields

(b) Radio buttons

(c) Checkboxes