CHITKARA UNIVERSITY

Sessional Test I
Semester

Roll No: .....

[Total No. of Pages: 02]

Date:
Department: Department of Electronics & Electrical Engineering
Title of the Course: Digital Electronics & Logic design
Course Code: ECL4207

Time: 90 minutes

Max. Marks: 40

Instructions:

For Section A

- There is one question having five parts. Each part is having four distinct options out of which only one choice will be correct. There is no negative marking for incorrect answers.

For Section B

- There are 6 Questions of 2 marks each. There is a choice to attempt 5 questions out of 6.

For Section C

- There are 4 Questions each of 5 marks. There is a choice to attempt 3 questions out of 4.

For Section D

- There are 2 Questions each of 10 marks. There is a choice to attempt 1 question out of 2.

Section-A

(All Questions are Compulsory, Each question carries 01 mark)

1.

a) Switching circuits are commonly known as

(i) Analog circuits (ii) Digital circuits

(iii) Hybrid circuits (iv) None of these

(b) The number of bits required to assign binary roll numbers to a class of 60 students is.

(i) 5 (ii) 7

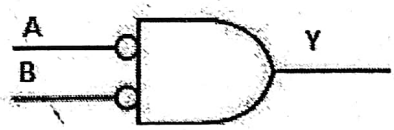
(iii) 6 (iv) 8

(c) 8421 code is

(i) Self-complementing code (ii) weighted code

(iii) Non-weighted code (iv) alphanumeric code

(d) For the gate shown in figure, the output will be HIGH



(i) If both inputs are high (ii) if both inputs are low

(iii) if one of the inputs is low (iv) if one of the inputs is high

(e) The code used for labelling cells of K-map is

(i) Natural BCD (ii) Hexadecimal

(iii) Octal (iv) Gray code

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Section-B

(Attempt any 5 questions, each question carries 02 marks)

2. Perform the subtraction of 436.62 — 745.81 using 9's complement method.
3. Convert the binary sequence 11011001 into gray code sequence.
4. State two laws of De-Morgan's theorem.
5. Express 5C7 Hexadecimal number into equivalent decimal number.
6. Map the expression f = (A+B+C)(A'+B+C')(A'+B'+C')(A+B'+C')(A'+B'+C).
7. Draw the logic circuit diagram for half adder.

Section-C

(Attempt any 3 questions, each question carries 05 marks, sub parts (if any) carry equal weight-age)

8. Expand A +BC' + ABD' +ABCD to minterms and maxterms.
9. Compare TTL and CMOS logic families on the basis of parameters given below:

Family	Propagation delay	Power Dissipation	Noise Margin	Fan In	Fan out
TTL					
CMOS					

10. The inputs to a computer circuit are the 4 bits of binary number ABCD. The circuit is required to produce a 1 if and only if all of the following conditions hold.
    a) The MSB as well as LSB is 1.
    b) When B is 1 and LSB is 0.
    c) When all the inputs are low.

    Obtain a minimal expression for it.
11. Design and implement logic circuit diagram of full subtractor.

Section-D

(Attempt any 1 question, each question carries 10 marks, sub-parts (if any) carry equal weight-age)

12. Using the tabular method obtain the minimal expression for

    $F = \Sigma m (6,7,8,9) + d(10,11,12,13,14,15)$
13. (a) Device a single error correcting code for a 11-bit group 0110 1110 101 (4)

    (b) Test the following hamming code sequence for 11-bit message and correct it if necessary 1010 0101 1101 011 (6)

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CHITKARA UNIVERSITY

2017-2018

Sessional Test I–September, 2017

Semester I

ID No: .....

[Total No. of Pages: 4]

Time: 90 minutes
Max. Marks: 40

Title of the Course: Client Side Technologies
Course Code: CSL4209

Instructions:

For Section A

- There is one question having five parts. Each part is having four distinct options out of which only one choice will be correct. There is no negative marking for incorrect answers.

For Section B

- There are 6 Questions of 2 marks each. There is a choice to attempt 5 questions out of 6.

For Section C

- There are 4 Questions of 5 marks each. There is a choice to attempt 3 questions out of 4.

For Section D

- There are 2 Questions of 10 marks each. There is a choice to attempt 1 question out of 2.

Section-A

(All Questions are Compulsory, Each question carries 01 mark)

1.

a) Which of the following is the correct way to applying style to a document?

(i) Use an external style sheet, either by importing it or by linking to it.
(ii) Directly embed a document-wide style in the head element of the document.
(iii) Set an inline style rule using the style attribute directly on an element.
(iv) All of the above

b) Which of the following is the attribute that specifies additional horizontal space, in pixels, to be reserved on either side of an embedded item like an iframe, applet, image, and so on?

(i) height
(ii) hspace
(iii) hidefocus
(iv) datasrc

c) Which element represents a section of a document that links to other documents?

(i) Navigation
(ii) anchor tag
(iii) nav
(iv) option

d) What is the full form of bdo?

(i) bi-directional overwrite
(ii) bi-directional override
(iii) bi-dimensional overwrite
(iv) None of the above

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e) Which of the following is the value of behavior attribute in marquee tag?

(i) Scrolling (ii) Slide

(iii) Both i and ii (iv) None

Section-B

(Attempt any 5 questions, each question carries 02 marks)

2. Write a code to display following code:
   i. $(a+b)^2 = a^2 + b^2 + 2ab$
   ii. H_2SO_4 , H_2O
3. Write a code to include external style sheet in a web page.
4. Write HTML code to jump from index.html to particular part of detail.html.
5. Apply map tag using ~~three~~ 2 shapes rectangle and circle on an image.
6. Write the code to display reverse of the word: University
7. Move the following text from right to left with background color red.

   "CHITKARA UNIVERSITY, Himachal Pradesh"

Section-C

(Attempt any 3 questions, each question carries 5 marks, subparts (if any) carry equal weightage)

8. Write HTML code to print the following list
   1. Introduction
   2. Project Background
      a. Problem Definition
      b. Deliverable
         i. Hardware
         ii. Firmware Code
   3. System Design
      a. Hardware Implementation
      b. Linear Testing
         i. Gain Error
         ii. Missing Codes

9. Differentiate the following
   1) Cellspacing and cellpadding

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2) Get method and post mehod

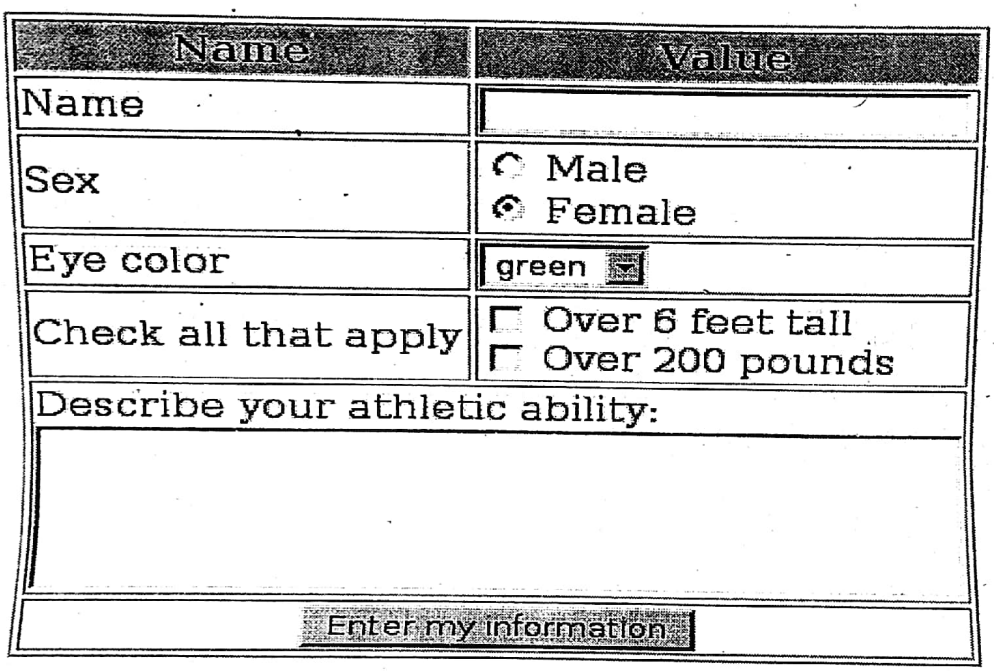
10. Write JS code to find the greatest number from three numbers.

11. Write JS code to print even numbers between 1 and 101

Section-D

(Attempt any one question, each question carries 10 marks, subparts (if any) carry equal weightage)

12. (a) Write HTML code to create following form.**(Use table to provide proper structure).**



(b) Write HTML code to create following Table

S.No	Personal Details		
	ID	Name	Age

13. Create web pages to implement following frame

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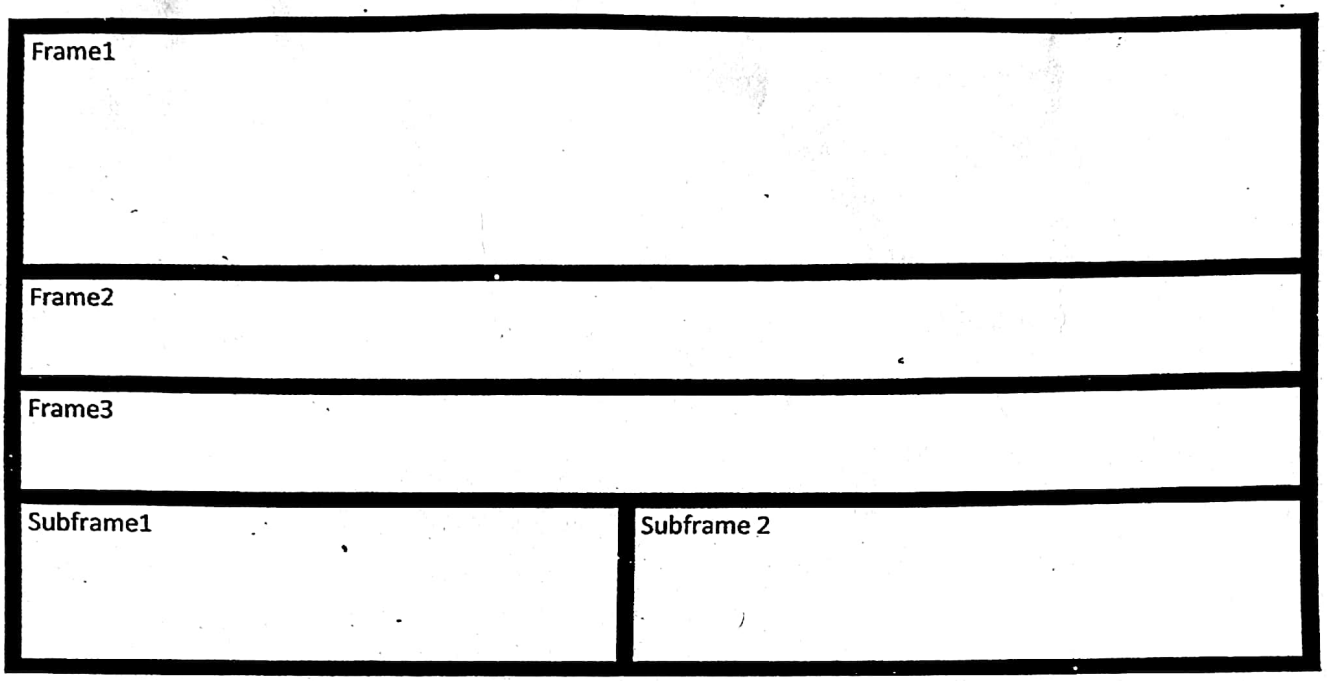

Details of frames:

Frame 1:-Contain the name of the site with red background

Frame 2:-Display image namely "nature.jpeg".

Frame3:-Display content of web page "imagedetails.html". The page contains details of image displayed in frame2.

Subframe1:-Show content of page "list1.html".List1.html contains following list where every element in this list is a hyperlinked in such a way that when user click on it the details will be displayed in **subframe2**

1. HTML
2. CSS
3. JS
4. Jquery

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CHITKARA UNIVERSITY

Sessional Test I –September, 2017

Semester III

ID No: 1610991080

[Total No. of Pages: 03]

Time: 90 minutes

Max. Marks: 40

Department: Computer Science & Engineering
Title of the Course: Computer Networks
Course Code: CSL 3203

Instructions:

For Section A

- There is one question having five parts. Each part is having four distinct options out of which only one choice will be correct. There is no negative marking for incorrect answers.

For Section B

- There are 6 Questions of 2 marks each. There is a choice to attempt 5 questions out of 6.

For Section C

- There are 4 Questions of 5 marks each. There is a choice to attempt 3 questions out of 4.

For Section D

- There are 2 Questions of 10 marks each. There is a choice to attempt 1 question out of 2.

Section-A

(All Questions are Compulsory, Each question carries 01 mark)

1.a) If the number of data bits are 9 then number of redundancy bits required to correct the given number using hamming code.

(i)6 (ii) 7

(iii) 4 (iv) 3

b) In Slotted ALOHA ,vulnerable time period is ----

i)Tp (ii)Tp/2

iii)2 Tfr (iv)Tfr

c) Size of a Logical address in IPV4 is....

(i) 4 Bytes (ii) 32 Bytes

(iii) 16 Byte (iv) 8 Byte

d) Which type of addresses will change from hop to hop

(i) Physical Addresses (ii) Logical addresses

(iii) Port addresses (iv)B & C

e) The Hamming Distance between 010 and 011 is

(i) 1 (ii) 2

(iii) 3 (iv) 4

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Section-B

(Attempt any 5 questions, each question carries 02 marks)

2. How Stop and Wait ARQ is different from Stop and Wait for noiseless channel?
3. Why Fiber Optic cable is considered to be more efficient and secure in Guided Transmission media?
4. What must be the minimum Hamming distance in a block code, to detect and correct 5 errors?
5. Assume that stop and wait ARQ system, the bandwidth of a line is 1 mbps, and 1 bit takes 20 ms to make a round trip. What is the bandwidth delay product? If the system data frames are 1000 bits in the length, what is the utilization percentage of the link.
6. Demonstrate briefly how does byte stuffing and bit stuffing deals with data link layer design issues.
7. Define two Protocols ,that work upon Hop to Hop layer in the TCP/IP Model?

Section-C

(Attempt any 3 questions, each question carries 5 marks, subparts (if any) carry equal weightage)

8. Examine which network topology is used for critical networks and How it is more efficient from other topologies? Explain its pros and cons.
9. Construct the message to be transmitted using the CRC polynomial if the data is 11001001 and the divisor is x^3 + 1 .Also show the receiver's end calculation.
10. Compare and contrast the GO-Back-N ARQ protocol with Selective-Repeat ARQ. Explain the reason for moving from the stop –and –wait ARQ protocol to GO-Back-N ARQ protocol .
11. Construct the Hamming code for the 15- bit sequence 110101100011001. Also correct the error in data unit (if any).

Section-D

(Attempt any one question, each question carries 10 marks, subparts (if any) carry equal weightage)

12. Discuss OSI Reference model and compare it with TCP/IP reference model.
13. (a) Is the vulnerable period in Pure ALOHA different than Slotted ALOHA ?If yes ,Explain the reason.

    (b) A slotted ALOHA network transmit 400-bit frames using a shared channel with 400kbps bandwidth. Find the throughput if the system produces 600 frames/sec. (3 Marks)

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