Department of Computer Science and Engineering
VSSUT, BURLA
Mid semester Examination
INTERNET AND WEB PROGRAMMIMNG
B.Tech , 7th (CSE and IT) Semester

Time: 2:00hr **Full Mark: 20**

Note: Question number one is compulsory and any three from rest. If any data is missing, then assume yourself.

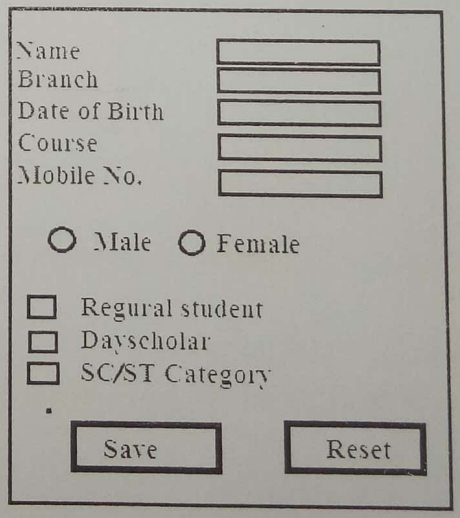
1. a) Explain the general form of an URL? [5X1]
   b) What are the uses of web page editors?
   c) Write HTML code for numbered and bullet list in web page?
   d) Compare HTML and DHTML?
   e) Write the HTML code for creating multiline text box with necessary parameters?

2. a) Differentiate TCP/IP and UDP. With a complete example, explain about how a client server application is implemented using UDP? [2X2.5]
   b) Explain frames and table tags of HTML, with suitable examples.

3. a) Write an external cascading style sheet to define the font, font colour, background and foreground colours and various table tag properties. Also use the CSS to design a web page with tables. [2X2.5]
   b) Write JavaScript to validate a form consisting of Name, Age, Address, Gender (radio button), state and country (Drop and down menu).

4. a) Using a JavaScript create a Web Page, using two images files, which switch between one another as the mouse click over the images. [2X2.5]
   b) Develop a HTML page which accepts, any mathematical expression and evaluate the expression and display result of the evaluation.

5. a) Write HTML code to design a form as shown in the figure. The entire form will be reset when user click on reset button and all the fields are mandatory. [2X2.5]



   b) What is JavaScript? Explain Server side JavaScript and Client side Java for DHTML.

6. Short Notes on(ANY TWO):- [2X2.5]
   a) OSI Model Vs TCP/IP Model
   b) Transmission Infrastructure.
   c) CSS

********** ALL THE BEST**********

VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY
BURLA, ORISSA

Mid Semester Examination – 2018

Semester – 7th
Time – 2 Hours
Subject: ERTS

Branch – CSE
Full Mark – 20
Subject Code: CS15-017

Question no. 1 is compulsory. Answer any three questions from rest.

Q.1. Answer the following questions **[1 x 5 = 5]**

a) What is the significance of watchdog timer in embedded system?
b) Define reentrant function and its characteristics with an example.
c) Describe the priority inheritance protocol.
d) What is interrupt latency and how to reduce it?
e) Define and differentiate mutex lock and spin lock.

Q.2. **[3 x 5 = 15]**

a) Describe the various architecture types applicable to embedded system. [3]
b) What is mutual exclusion and how can it be achieved in an embedded system. [2]

Q.3.

a) What is IPC? Name the different mechanisms provided by OS for IPC and provide a brief comparison those mechanisms. [3]
b) Explain the Dining Philosophers problem with an example. [2]

Q.4.

a) What is an interrupt and differentiate between the various interrupt types. What is an ISR and provide a brief overview of the rules followed by ISR in RTOS? [3]
b) Explain dynamic address relocation with an example. [2]

Q.5. What is a semaphore? Describe its variants and their usage. [5]

********** BEST OF LUCK **********

VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, BURLA

B.Tech. 7th Sem CSE,

MID SEMESTER EXAMINATION, October 2018

Entrepreneurship

Time : 2 hrs Full Marks : 20

[Answer all questions]

1. (a) What are the four important characteristics of an Entrepreneur ? [1X5]
   (b) Why is it important for entrepreneurs to develop financial plans for their companies ?
   (c) How can it be argued that it is a good idea for students to launch businesses while still in college?
   (d) Why is it important for entrepreneurs to develop financial plans for their companies ?
   (e) How easy or difficult is it to start a small business ?

2. (a) Entrepreneurship is not buying and selling. Discuss ? [2]

   (b) What do you mean by Business Plan ? What are the components and steps of preparing a Business Plan ? [3]

3. (a) What are EDIs and Name two EDIs in India ? What are the functions of EDI ? [1+2]
   (b) What are the causes of insufficient development of Entrepreneurial Classes in India ? [2]

4. Generate a Business Idea for solution to any local problem in VSSUT ? Prepare a Business Plan for your idea with the Business Model with expected budget estimate for investment as Capital and revenue generation ? [5]

Veer Surendra Sai University of Technology, Burla
B.Tech
Mid Sem Examination

Semester–7th
Time - 2hrs.

Branch – CSE
Full Mark – 20

Subject – Advanced Computer Architecture

Question no. 1 is compulsory. Answer any three questions excluding question no.1.

Q.1. Answer the following questions [1 × 5 = 5]

a) How to achieve parallelism in uniprocessor system.
b) For which kind of program SIMD and MIMD processors are suitable.
c) Distinguish between mesh and torus.
d) State Amdahl's law and hence find out the overall speed up in the below given scenario: An improvement can speed up 30% of the computation and the improvement makes the portion affected twice as fast.
e) Write an appropriate example explain about the structural hazards in a pipelined processor.

Q.2. (a) Analyze the data dependences among the following statements in a given program: [2.5× 2=5]

S1: Load R2, 2500	/2500→R2/
S2: Load R3, M(10)	/Memory(10) →R3
S3: Add R2, R3	/(R2)+(R3) →R2
S4: Store M(2500), R2	/R2→Memory(2500)
S5: Store M((R3)), 2500	/2500→Memory(14)/

Where (Ri) means the content of register Ri and Memory(10) contains 14 initially.

Draw a dependence graph to show all the dependences and write them.

(b) Distinguish between shared address space computer and message passing computer.

Q.3.(a) Draw the schematic diagram of a 4-D hypercube network with proper node numbering, Show the routing path for a message between the following sender-receiver node pair using the routing protocol.

i) Sender node = 0 and receiver node = 15
ii) Sender node = 5 and receiver node = 11 [3]

(b) Distinguish between RISC and CISC processor ? [2]

Q.4.(a) Draw the schematic diagram of a 8 input and output omega network with proper node numbering. Show the routing path for a message between the following sender-receiver pair:

i) Sender node = 7 and receiver node = 2

ii) Sender node = 0 and receiver node = 7 [3]

(b) Show the perfect shuffle and inverse perfect shuffle. [2]

Q.5.(a) Define and explain Bernstein conditions?

(b) Explain the cross bar switch interconnection network. [2.5× 2]

Q.6.(a)Your company has just bought a new Intel core i7 dual core processor and you have been tasked with optimizing your software for this processor. You will run two applications on this dual core, but the resource requirement are not equal. The first application requires 80% of the resources and the other only 20% of the resources. Assume that when you parallelize a portion of the program, the speed up for that portion is 2.

I. Given that 40% of the first application is parallelizable, how much speed up would you achieve with the application if run in isolation ?

II. Given that 99% of the second application is parallelizable, how much speed up would you achieve with the application if run in isolation ?

III. Given that 40% of the first application is parallelizable, how much overall system speed up would you observe if you parallelized it ?

IV. Given that 99% of the second application is parallelizable, how much overall system speed up would you observe if you parallelized it ? [4]

(b) Explain the disadvantages of two-state machine in dynamic branch prediction. [1]

VSS University of Technology, Burla

Mid Sem Examination

Semester – 7th | Branch – CSE
Time - 2hrs. | Full Mark – 20

Subject – Data Mining

Question no. 1 is compulsory. Answer any three questions excluding question no.1.

Q.1. Answer the following questions [1 x 5 = 5]

(i) Briefly outline how to compute the dissimilarity between objects for nominal attributes.

(ii) Explain the min-max normalization with an example.

(iii) Define the term confidence with respect to support count.

(iv) How to calculate the accuracy and sensitivity value from a confusion matrix. Explain with an example.

(v) Explain the k-fold cross validation method.

Q.2. Consider the transactions below. If minimum support is 40%, (a) determine the frequent itemsets using the FP-Tree algorithm. (b) Determine the association rules considering minimum confidence of 60%. While determining the association rules only consider the frequent 3-itemsets and frequent 4-itemsets (if any). **[2.5+2.5]**

Transactions	Items
T1	Bread, Jam, Milk, Butter
T2	Bread, Milk, Butter, Ketchup
T3	Jam, Milk, Ketchup
T4	Bread, Jam, Milk, Butter
T5	Jam, Milk
T6	Jam, Milk, Butter

Q.3. Build a Decision Tree for classification using the training data in the table given below. Divide the Height attribute into 3 ranges as follows: Less than 1.6, 1.6-1.8, Greater than 1.8 **[5]**

Gender	Height	Class
F	1.58	Tall
M	1.58	Medium
M	1.7	Medium
F	1.65	Tall
F	1.85	Tall
F	1.4	Short
M	1.4	Short
M	1.7	Medium
F	1.75	Tall
M	1.82	Tall
F	1.6	Tall

(OR)

Q.3. We wish to train a multilayer perceptron (MLP) with the truth table of an OR gate. Consider this MLP has 2 units in the input layer (corresponding to two inputs of the OR gate), 2 units in the hidden layer and 1 units in the output layer (one unit represents class 0 and the other unit represents class 1). Consider that the input layer to hidden layer weights are initially set as follows: w11=0.4, w12=0.1, w21=0.2 and w22=0.3. Hidden layer to the output layer weights are initially set as follows: W11=0.2, W12=0.2, W21=0.1 and W22=0.1. Consider that the transfer functions for the hidden layer units as well as the output layer units are as follows: $= {}^{1}/_{(1+e^{-I})}$. Assume that the input layer units transfer their inputs without any change and learning rate = 0.5. Consider all the bias at the hidden layer is 0.4 and output layer is 0.2.

Determine the new weights after an input pattern (1 0) is given as the training data. The expected output is 1.

Q.4. (a) Discuss issues to be considered during data integration. [2.5]

(b) Describe the different methods for data cleaning. [2.5]

Q.5. (a) What is data mining? With a neat diagram, explain the steps involved in KDD. [2.5]

(b) Suppose the data analysis includes the attribute age. The age values for the data tuples are 13, 15, 16, 16, 19, 20, 20, 21, 22, 22, 25, 25, 25, 25, 30, 33, 33, 35, 35, 35, 35, 36, 40, 45, 46, 52, 70.

(i) Give the five number summary of the data. [1]

(ii) Show box plot of the data. [1.5]

ALL THE BEST