Date:28 April 2015   Marks: 60
Duration: 2 hours

Note:
1. Attempt any TWO questions from 1 to 3. Each question carries 15 marks.
2. Attempt any TWO questions from 4 to 6. Each question carries 15 marks.

Data Management

1. Explain with a suitable E-R diagram for a simple process and establish at least 5 Tables for the same demonstrating interconnection of primary and secondary keys between these tables.

2. List at least 5 outcomes expected from a reporting tool and associated database using any suitable business application for a perishable goods industry. report & adhoc report

3. List two top challenges for each of these in terms of (i) storage design, (ii) reporting, and (iii) automated feeds to other data system for data obtained from transcripts(unstructured internal data), forms (structured internal data) and industrial data (structured external data), social networks (unstructured external data). (Total: 12 challenges)

System Software

4. Describe the 'evolution of Operating systems' based on the need for the next generation arising out of short comings of the previous generation.

5. Explain the purpose of an Operating System, its feature and benefit using suitable example.

6. What is virtualization? How platform as a service (PAAS) accomplished by the service provider

~*~

Date: 29April 2015
Duration: 2 hours

Marks: 60

Note:

1. Attempt any Three Questions. Each question carries 20 marks.

~ * ~

1. Describe a Storage Area Network with respect to its (i) design, (ii) architecture, (iii) purpose, (iv) Testing approach, (v) management of SAN on day to day basis.

2. Explain OSI model with suitable diagram and explain how it is different from the TCP Model. What are protocols? Name any two protocols not from the same layer and explain its role?
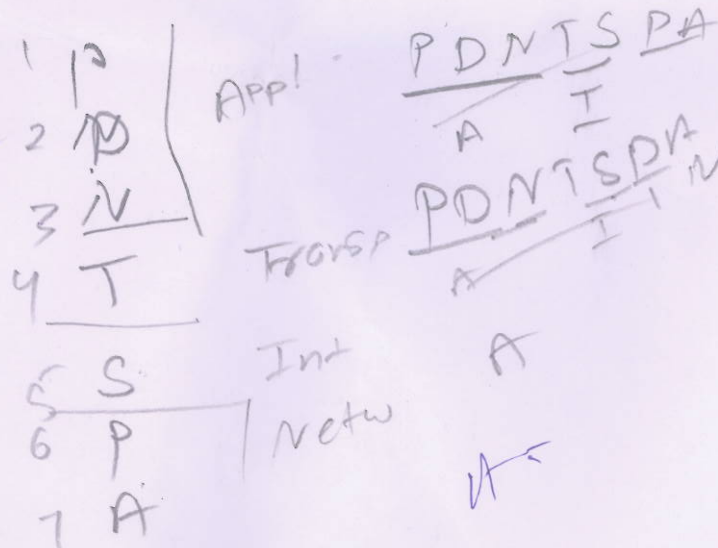
3. Name and describe any three topologies of a networkusing suitable example. Differentiate between Wired and Wireless networks. Considering their strengths, explain the areas where you will recommend implementing them in a typical International University Campus.

4. Explain with suitable high level network diagram, the requirements for a new Data Centre for which you are put as the Head of Operations.

~*~

JAMANALAL BAJAJ INSTITUTE OF MANAGEMENT STUDIES

MIM SEM IV SUBJECT : WEB BASED TECHNOLOGY

MAX MARKS : 60

Instructions: Section I is compulsory. (1 Question x 20 Marks = Total 20 Marks)

Section II - Attempt any 4. (4 Questions x 10 Marks = Total 40 marks)

SECTION I

Q1 Companies like WALMART and IRCTC has adopted Web Portal Technology. Discuss the Web Portal Technology which is used by this Portals and discuss various advantages of the same.

SECTION II

Q 2 a) Discuss AJAX technology

    b) What are advantages of HTML 5.0

    c) What is OWL discuss in detail.

Q 3 a) Blogs are for WEB 2.0 What is Semantic BLOGS. Discuss "Haystacks"OR "SemiBLOG"

    b) WEB 3.0 is based on RDF ,Discuss RDF in detail and one of its application.

    c) WEB 2.0 has Wiki and and Wikipedia .What is semantic WIKIS. Discuss dbpedia. OR "Media WIKI"

Q 4 a) What is the purpose of SEO,How it works.

    b) Online Social Network has also become part of advertising and fund raising.Which WEB technology will be used in WEB 3.0 discuss any .

    c) What is semantic Social Information .Discuss Nepomuk

Q 5 a) Search engine like GOOGLE or ALTA VISTA is part of our day to day search.what is SEMANTIC SEARCH . Discuss Swoogle and SWSE.

    b) Discuss Semantic Library.Discuss in detail BRICKS or LONGWELL

    c) in WEB 2.0 we have community portals .What is Semantic Forums .Discuss SIOC or DataSpacesQ

Q 6a) How is WEB 3.0 is different form WEB 1.0

    b) What are major characteristics of WEB 3.0

    c) How is XML different from WML.

TOTAL MARKS = 60   TIME = 2 hours

INSTRUCTIONS

1. Please answer ALL questions
2. Answer in brief – as explained in the class.
3. Read the questions completely before answering.
4. For programs write pseudo code, actual code and basic output
5. Write in short one- to two sentences/ short notes /long answers in point form.
6. It is NOT required to write whole program for code segment used to explain a concept.

1) Answer following question in one to two sentences – 2 marks each
   i) Explain difference between a WHILE loop and DO-WHILE loop.
   ii) What is the use of operator "static" in Java?
   iii) What keyword is used to define constants in C++ and Java?
   iv) Give two characteristics of polymorphism.
   v) State four distinct differences between Compiler and Interpreter languages
   vi) State few risks associated with using pointers.
   vii) Why does main method in Java have "String[] args"?
   viii) What is a namespace? Give an example
   ix) Give syntax of Switch statement? Does Java have a switch statement?
   x) What function is served by header files in C++?

2) Write programs/function/code in C++ – 5 marks
   a) Write for loop to get input of 20 students and their total marks into an array AND
      another for loop to sort this array in descending order of marks.
      OR
   b) Write a code to demonstrate overloaded constructors of class named "Personnel"
      which may contain following data members name, date of joining, designation,
      salary etc.

3) Write program/function/code in Java – 5 marks
   a) Write a program to take input from user in form of string and parse it into integer
      variable along with relevant exception handling.
      OR
   b) Take input "n" as integer from user and write functions to compute "sum to n
      terms", and "sum of squares to n terms". Use appropriate exception handling.

4) Write short notes on any 2 of the following – 5 marks each
   a) Explain Polymorphism and its use
   b) Explain Reference in C++ and Reference in Java on various parameters.
   c) Explain compiler based languages, Interpreter based languages and how code is
      processed/executed in Java.
   d) Explain typecasting and problem with integer division

5) Answer one of the following (10 marks)
   a) Explain Encapsulation, use of permission labels (public/private/etc...), how
      permissions are modified for objects of derived classes and its application in
      Inheritance. Done.
      OR
   b) Explain Constructors, types of constructors, overloaded constructors and their
      use.

6) Answer any one of the following (10 marks)
   a) Explain use of virtual functions and Abstract classes and its use.
      OR
   b) Explain Overloading, Over-riding and difference between them.