THIRD YEAR
SARASWATI COLLEGE OF ENGINEERING, KHARGHAR
DEPARTMENT OF INFORMATION TECHNOLOGY

SUB: CGVR   MARKS: 25

                                                                   DATE: 21/8/12

Q1 are compulsory and solve any 4 out of remaining

Q1. Consider the line AB with co-ordinates A(0,0) and b(4,5) in a 2D plane , obtained a
      matrix of transformation for scaling for the line AB in x-direction by the factor 3 and
      plot the same.   5mk
Q2. Explain the type of co-ordinates system used in computer graphics   5mk
Q3. Explain any four display devices   5mk
Q4. Consider the line co-ordinates (0,0) and (6,4) rasterize the line segment using
       Bresenham's algorithm   5mk
Q5. Difference between bitmap vs vector based graphics   5mk
Q6. For A(x1,y1) and B(x2,y2) as endpoints, use DDA algorithm to draw a line join them 5mk

MID-TERM TEST -1

Subject: CTNC   Date: 23/08/12

1) What are the differences between ASK, FSK, PSK and digital modulation

   technology?   05

2) Explain ISO-OSI layered architecture in brief.   05
3) Compare SDMA, FDMA, TDMA, CDMA.   05
4) What do you mean by Handoff? Explain how proper handoff takes place

   with some Handoff algorithm?   10

   OR

   Explain Code Division Multiple Access Technique. How spreading and

   scrambling takes place? Also explain Direct Sequence Spread Spectrum? 10

THIRD YEAR

SARASWATI COLLEGE OF ENGINEERING, KHARGHAR
DEPARTMENT OF INFORMATION TECHNOLOGY

SUB: CGVR   **TIME:** 10:30 to 11:30   **MARKS:** 25

Note: Question no.1 is **compulsory** .

Q1. Give the line clipping algorithm which uses area codes for the end points of the
     line segment. Test it for a line p1p2 where p1(9,9) and p2(50,20) against the
     window with (Xwmin, Ywmin)= (10,10) and (Xwmax, Ywmax)=(20,20).

                                                                    ---- 10 mrks

Q2. a) Explain Flood Fill algorithm using 8 connected approach. What are its advantages
        over Boundary Fill algorithm ?
        OR   ---- - 6 mrks
     b) Describe various warping techniques .

Q3. a) List various types of computing architecture of VR and explain any one in detail

                                                                    --- 6 mrk

        OR
     b) Give the properties of B-spline curve

Q4. Write a short note on ---a) Fractal   OR   b) Bezier curve   ----3 mrks

SARASWATI COLLEGE OF ENGINEERING, KHARGHAR
DEPARTMENT OF INFORMATION TECHNOLOGY

SUB: CTNC   **MARKS:** 25

Note:- Question no 5 is compulsory
   Solve any 3 questions from remaining 4 questions

Q. 1) What are the various functions of data link layer? Explain with suitable example.   5M

Q. 2) Explain classification of signaling techniques in detail.   5M

Q. 3) What are different types of traffic? Explain Leaky Bucket algorithm in detail.   5M

Q. 4) What do you mean by encryption? Explain Symmetric key and asymmetric key

   algorithm in brief.   5M

Q. 5) Write short notes on :-(any three)   10M
   i) Switching Architectures
   ii) Internet Addressing
   iii) Distance vector routing
   iv) RSA algorithm

SARASWATI COLLEGE OF ENGINEERING
ENVIRONMENTAL STUDIES

MM : 25   TIME :-

DATE :-

Q1 Solve any five   [10]
   (a) Bio- geographical classification of India.
   (b) Write note on Disaster Management.
   (c) Define Ecology and Ecosystem.
   (d) What is acid rain? Give effects of acid rain.
   (e) Valve Education (Short note).
   (f) What is effect of mining on environment?

Q2 (a) Explain soil erosion. Give its causes and types.   [3]
            Or
(b) Discuss rain water harvesting. What are advantages from this technique?

Q3 Write an essay on "Biological Diversity"   [3]

Q4 Give cause and effects of ozone layer depletion.   [3]

Q5 (a) Give an account of women and child welfare in India.   [3]
            Or
(b) Discuss the role of information technology in environmental management and
    Human health.

Q6 (a) what is meant by sustainable development?   [3]
            or
   (b) What is an ecosystem? With the help of suitable models
       explain the energy flow in an ecosystem.

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TE IT
Unit test 2

SUB: MPPS   **MARKS:** 25

Q1 is compulsory and Attempt any twp of remaining questions

All Questions carry equal marks of 10 each, except Q 1

1. What is Ergonomics? Explain how Ergonomics is used in manufacturing process?

2. Name three types of layout .Describe any one type of layout with a sketch.

3. Define effective capacity, utilization and efficiency. What is capacity planning?

4. What is Flexible Manufacturing system? Give details.

SUB: OSCD   **TIME:** 10:30 to 11:30   **MARKS:** 25

Note: - Question 1 is compulsory.

   -Attempt any 2 from remaining questions.

1. What is deadlock? What are four conditions necessary to create deadlock? (5 marks)
2. Calculate Hit and Faults using FIFO, OPT and LRU page replacement policies for following page sequences:
   2   3   5   4   2   5   7   3   8
   Assume page frame size is 3.   (10 marks)
3. What are various buffering techniques? Explain each in detail.   (10 marks)
4. a) What is RTOS? Explain types of RTOS.   (5 marks)
   b) Explain Message based IPC.   (5 marks)

THIRD YEAR
SARASWATI COLLEGE OF ENGINEERING, KHARGHAR
DEPARTMENT OF INFORMATION TECHNOLOGY

SUB: DBT   MARKS: 25

Note: Question no **one** is compulsory and solves any **two** from remaining questions

1.Construct an Entity-Relationship diagram for the following students are enrolled in courses. The students are assigned to different batches. For each batch faculty is assigned during courses, students are issued course materials. At the end of each individual courses, student have to take a test, During their studentship, students are required to take many tests. At the end of the course they are awarded certificates.   (5)

2. Explian any five relational algebra with an example?   (10)

3. Write short notes on   (10)
   a) Joins in Tables
   b)Group by, Having and Order by clause in SQL

4. Consider the following relational database:-   (10)
   Customer (Customer_id, customer_name,customer_city)
   Depositor (customer_id, Account_no)
   Account (Branch_name, Account_no, Balance)
   Borrower (loan_no, customer_id)
   Loan (loan_no,amount)
   Write SQL for the following queries:-
   (i)Find customer name who have highest balance at Dadar branch.
   (ii)Find customer id who have both loan and account.
   (iii) Find customer names who have the same branch as Andheri and having
        balance   greater than 15,000/-.
   (iv) Find those branches where the average account balance is more than Rs. 1Lack.

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DEPARTMENT OF INFORMATION TECHNOLOGY

SUB: INS   MARKS: 25

Note: Question no **one** is compulsory and solves any **two** from remaining questions

Q1.Define the three security goals   05
Q2.Distinguish between passive and active attacks Explain any three active
   and passive attacks   10
Q3.Explain the playfair cipher with example   10
Q4.Explain the DES algorithm in details   10

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DEPARTMENT OF INFORMATION TECHNOLOGY

SUB: ITME   MARKS: 25

Note: Question no. **one** is compulsory and solves any **two** from remaining questions

Q1. Explain What do you mean Information System,Explain with example Formal and Informal Information System?   05

Q2. Explain various electronic payment system, Explain Security in electronic payment   10

Q3. Attempt any Two: 10

   (a) Explain with example Data, information and knowledge .
   (b) What do you mean by e-commerce(EC), Explain with ex. Pure and partial EC.
   (c) Explain SOA(Service Oriented Architechture).

Q4. Describe Classification and Types of Information System.   10

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DEPARTMENT OF INFORMATION TECHNOLOGY

SUB: MEIT   MARKS: 25

Note: Question no **one** is compulsory and solves any **two** from remaining questions

Q1. Explain MOM .   05

Q2.Explain RPC Mechanism with advantages.   10

Q3. Explain Classification of servers in client - server model.   10

Q4.Explain Client – server communication with connection-oriented protocol
    Using sockets.   10

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DEPARTMENT OF INFORMATION TECHNOLOGY

Note: Question no **one** is compulsory and solves any **two** from remaining questions

Q1. Explain Model -2 Architecture.   05

Q2. Explain Java EE 5 architecture with modules and container.   10

Q3.Write short note on Sturts.   10

Q4.Explain life cycle and working of Servlet.   10

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DEPARTMENT OF INFORMATION TECHNOLOGY

SUB: SE   MARKS: 25

Note: Question no **one** is compulsory and solves any **two** from remaining questions

Q1. Compare coupling and cohesion.   05

Q2.Enlist and explain the steps requires to perform a cost estimation using   10
     COCOMO model.

Q3.Explain different quality attributes.   10

Q4.Explain in detail   the incremental model with the advantages and disadvantages.   10

SUB: DBT   MARKS: 25

Q 1) All electronics company have sales dept, sales consider four dimension namely item,
    time,branch and location. The schema contain a central fact table sales with two
    measures dollar-sold and unit-sold Design star and snowflake schema.   (5)

Q2) Explain normalization 1NF,2NF,3NF and BCNF with an example?   (10)

Q3) Explain the following Terms.
    a)Data Fragmentation in Distributed Database System.   (5)
    b) Two phase Commit Protocol.   (5)

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DEPARTMENT OF INFORMATION TECHNOLOGY

SUB:INS   MARKS: 25

Note: Q1 is compulsory and solve any **two** questions from remaining

Q1.Explain session hijacking	05
Q2.Explain Denial of service attack in network	10
Q3.Explain different types of firewalls with their limitations	10
Q4.Explain Secure Email System with example.	10

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DEPARTMENT OF INFORMATION TECHNOLOGY

SUB: ITME   MARKS: 25

Note: Question no **1.** is compulsory and solves any **two** from remaining questions.

Q1.Write short note on: (5)
    a) Transaction Processing System(TPS)
    b) Data warehouse and data management.

Q2.Attempt any four question: (10)
    a)Explain with example Data, Information and knowledge.
    b)Compare Old economy and New economy.
    c)Explain with example utility computing.
    d)What is meant by e-commerce(EC)? Explain with example pure EC and partial EC.
    e)What is data ware housing? Discuss benefits and characteristics of data ware
       housing?

Q.3(a) Explain the importance of communication and collaboration technology to process
      knowledge management.   (10)
  (b) Explain various electronic payment system. Explain security in electronic payment?

Q4.(a) What is business model? What are major pressure in Business environment?   (10)
  (b)What is difference between EIS and ESS? Give example of each.

SUB: MEIT   MARKS: 25

Note: Question no **one** is compulsory and solve any **two** from remaining questions.

Q1. What is IUnknown interface in COM?   5
Q2.Explain in detail architecture of CORBA.   10
Q3. State and explain different Object Location Services in CORBA.   10
Q4. a) Explain how DCOM works?   5
    b) What is apartment in COM? Explain types.   5

TEST 2

SUB: PMRC   MARKS: 25

Note: Question no **one** is compulsory.

Q1. Explain architecture of Bluetooth   5

Q2. Explain event handling in J2ME.   10
Q3.Write short note on any two.   10
(A)OBEX
(B)Midlet Suite security
(C)Limitations of CLDC 1.0

SUB: SE   SECTION-A   MARKS: 25

Note: Question no **one** is compulsory and solves any **two** from remaining questions.

Q1. Explain Re-engg.   05
Q2.Explain different types of maintenance with suitable example.   10
Q3. Explain SCM in detail.   10
Q4.Explain different types of system test with suitable example of each. 10