Total No. of Questions : 12]

SEAT No. :

P2342

[Total No. of Pages : 2

[5156] - 51

TYMCA Engg

Principles and Practices for IT Project Management

(2008 Course) (Semester-V) (710901)

Time : 3 Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Answer to the two sections should be written in separate answer books.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to the right side indicatefull marks.***
4) ***Assume Suitable data if necessary***

SECTION - I

Q1) a) Explain concept of management with its importance? **[6]**

b) Give case study on business policy **[6]**

OR

Q2) a) What is the role and importance of management? **[6]**

b) What are social ethics? **[3]**

c) What is business policy? **[3]**

Q3) a) What are the functions of IT in management of customer relationship? **[6]**

b) Write a short note on product design and development. **[6]**

OR

Q4) a) What are applications of IT in project management? **[6]**

b) Give case study of banking? **[6]**

Q5) a) What are the risks associated with mitigation and management? **[6]**

b) How to create project estimation? **[5]**

OR

Q6) a) Give detail note on gantt chart? **[6]**

b) How to establish project priorities? **[5]**

P.T.O.

SECTION - II

Q7) a) How to organize an IT project for resource procurement? **[6]**

b) How to track project progress and financial obligations? **[6]**

OR

Q8) a) How to establish change control an IT project? **[6]**

b) Give note on decision tree? **[6]**

Q9) a) What are team structure and team bonding? **[6]**

b) Explain **[6]**

i) Stress management

ii) Conflict management

OR

Q10) a) Give importance of team? **[6]**

b) What are the strategies for resolving destructive conflict? **[6]**

Q11) a) What is the concept of learning organizations? **[5]**

b) What are the different cyber laws? **[6]**

OR

Q12) a) Explain in detail impact of IT quality management system? **[6]**

b) Give note on six sigma? **[5]**

Total No. of Questions : 12]

SEAT No. :

P2343

[Total No. of Pages : 2

[5156] - 52
TYMCA (Engineering Faculty)
Computer Graphics
(2008 Pattern) (Semester-V)

Time : 3 Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Answers to the two sections should be written in separate books.***
2) ***Answer Q1 or Q2, Q3 or Q4, Q5 or Q6 from section I & Q7 or Q8, Q9 or Q10, Q11 or Q12 from section II.***
3) ***Neat diagrams should be drawn wherever necessary.***
4) ***Figures to the right indicate full marks.***
5) ***Assume suitable data, if necessary.***

SECTION - I

Q1) a) Explain Bresenham's Circle drawing algorithm. **[6]**

b) Explain the concept of anti aliasing and explain how it works **[6]**

OR

Q2) a) Explain the working of **[6]**

i) Touch panels &

ii) Track ball devices

b) Differentiate between the starburst method and bitmap method in 2 column format. **[6]**

Q3) a) Explain the scan conversion algorithm of polygon filling. **[6]**

b) Explain the homogeneous coordinate system & its need. **[6]**

OR

Q4) a) Explain the application of scaling and translation transformations on rectangle. **[6]**

b) Explain filling of a polygon with a pattern. **[6]**

Q5) a) Explain the operations that you can do on a segment table. **[5]**

b) Explain the Cohen-Sutherland algorithm for line clipping with figure. **[6]**

OR

Q6) a) Explain the image transformation on a rectangle done using segment table. **[5]**

b) Explain with figure the Sutherland Hodgman algorithm algorithm. **[6]**

P.T.O.

SECTION - II

Q7) a) Explain application on a rectangle of: **[6]**
   i) Parallel projection
   ii) Perspective projection.

b) Obtain the 3D transformation matrix for scaling about an arbitrary axis. **[6]**

OR

Q8) a) Describe 3D primitives. **[6]**

b) Apply 3-Dimensional transformation matrices on a rectangle for: **[6]**
   i) Translation
   ii) Scaling

Q9) a) Explain warnock's algorithm for hidden surfaces. **[6]**

b) Differentiate between diffuse & point-source illumination. **[6]**

OR

Q10) a) Explain painters algorithm. **[6]**

b) Write short notes on: **[6]**
   i) Reflections.
   ii) Shading algorithms.

Q11) a) What are the properties of B-Spline curve? Describe the procedure to generate B-Spline curve. **[6]**

b) Explain frame by frame animation. **[5]**

OR

Q12) a) What is fractal surface? Explain fractal generation in detail. **[6]**

b) Explain any 2 basic primitives of GKS **[5]**

Total No. of Questions : 12]

SEAT No. :

P2344

[Total No. of Pages : 2

[5156] - 53
TYMCA (Engg)
Advanced Databases
(2008 Course)

Time : 3 Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Answers to the two sections should be written in separate books.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Assume suitable data, if necessary.***

SECTION - I

Q1) a) Describe Linear Search Algorithm for selection operation. **[5]**

b) Explain materialized and pipelined evaluation with suitable example. **[6]**

OR

Q2) a) Explain the basic steps in query processing with suitable diagram. **[5]**

b) Explain block nested loop join algorithm with its cost estimation. **[6]**

Q3) a) What is need of distributed database systems? Explain advantages & disadvantages of distributed database systems. **[6]**

b) Describe any two parallel database architectures in detail with suitable diagrams. **[6]**

OR

Q4) a) Explain pipelined parallelism and independent parallelism with example. **[6]**

b) Explain the following terms: **[6]**

i) Heterogeneous Distributed Database

ii) Replication

iii) Fragmentation.

Q5) a) Explain type and table inheritance with suitable example. **[6]**

b) Describe array and nested table with suitable example. **[6]**

OR

Q6) a) Explain object identity and reference with suitable example. **[6]**

b) Explain persistent programming languages. Explain persistence in C++. **[6]**

P.T.O.

SECTION - II

Q7) a) Explain star schema for the multidimensional databases in detail with suitable diagram. **[6]**

b) What is data warehouse? Explain its applications with suitable examples. **[5]**

OR

Q8) a) What are the different OLAP operations? Explain any two OLAP operations with suitable diagram and example. **[6]**

b) "Data warehouse support to decision support system". Justify with suitable example. **[5]**

Q9) a) What do you mean by market basket analysis? Explain association rule mining and its applications in detail with suitable example. **[6]**

b) What is clustering? What are different clustering techniques? Explain different applications of clustering. **[6]**

OR

Q10) a) What is classification? Explain Bayesian classification with suitable example. **[6]**

b) Write a note on **[6]**

i) Outlier

ii) Text Mining.

Q11) Explain the following terms: **[12]**

a) Synonym

b) Web Crawler

c) Precision

d) Recall

OR

Q12) a) Explain characteristics and architecture of web search engines. **[6]**

b) Explain in detail popularity ranking. **[6]**

Total No. of Questions : 12]

SEAT No. :

P2345

[Total No. of Pages : 2

[5156] - 54
TYMCA
Engg Enterprise Resource Planning
(2008 Course) (Semester-V)

Time : 3 Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Answers to the two sections should be written in separate answer books.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to the right side indicate full marks.***
4) ***Assume suitable data if necessary.***

SECTION - I

Q1) a) What do you mean by integrated system. Explain with suitable example. **[6]**

b) Explain the usefulness of ERP in competitive strategies formation. **[6]**

OR

Q2) a) Write down the various benefits of ERP to organization. **[6]**

b) What do you mean by scope of ERP system? Explain with example. **[6]**

Q3) a) How organization structure is relates with ERP implementation? **[6]**

b) What do you mean by user resistance? How to handle it? **[6]**

OR

Q4) a) Why there is user resistance in ERP implementation? What are the ways to handle it. **[6]**

b) What do you mean by change management? Explain with suitable example. **[6]**

Q5) a) What do you mean by ERP architecture? Explain with suitable diagram. **[6]**

b) Explain the critical success factors for ERP implementation. **[5]**

OR

Q6) a) What are the reason of failure of ERP. Explain the remedies. **[6]**

b) Write down the comparative study any two popular ERP system. **[5]**

P.T.O.

SECTION - II

Q7) a) Explain off-the-shelf Vs development of ERP system. **[6]**

b) Explain the selection criteria of ERP package. **[6]**

OR

Q8) a) Explain in-house Vs Outsourcing of ERP solution. **[6]**

b) Explain various design and customization issues of ERP. **[6]**

Q9) a) Explain the role of ERP system in global business context. **[6]**

b) Explain service oriented architecture of ERP solutions? **[6]**

OR

Q10) a) Explain the BPR in context of implantation of ERP systems? **[6]**

b) What is data warehousing? How it is related to ERP. **[6]**

Q11) a) Explain Sales and Marketing module of ERP **[6]**

b) Explain the Finance and Costing module of ERP. **[5]**

OR

Q12) a) Explain the HRM and production modules of an ERP. **[6]**

b) Explain the Quality control module of ERP. **[5]**

Total No. of Questions : 12]

SEAT No. :

P2346

[Total No. of Pages : 2

[5156] - 55
Third Year M.C.A. (Engineering Faculty)
Software Testing
(2008 Pattern) (Semester-V) (Elective - II)

Time : 3 Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) *Answer 3 questions from section-I and 3 questions from section-II.*
2) *Answers to the two sections should be written in separate books.*
3) *Neat diagrams must be drawn wherever necessary.*
4) *Assume suitable data if necessary.*

SECTION-I

Q1) a) What is software measurement? Explain its classification in detail. **[8]**

b) Explain representation theory of measurement. **[4]**

OR

Q2) a) What is data? Explain how to collect, store and extract data. **[8]**

b) Explain four principles of investigation. **[4]**

Q3) a) Explain in detail Halstead software science. **[8]**

b) Differentiate time and space complexity. **[3]**

OR

Q4) a) Explain object oriented metrics in detail. **[8]**

b) Explain Goal Question Metric paradigm. **[3]**

Q5) a) What are the steps involved in preparation of test plan? Explain the steps. **[8]**

b) Explain organization structure for testing teams. **[4]**

OR

Q6) a) Explain different type of defects. What is defect repository? Also explain how defect repository provides support to developer/tester. **[6]**

b) What is Test case and Test suit? Explain it in detail. **[6]**

P.T.O.

SECTION-II

Q7) a) Explain the need of test plan in software testing. **[5]**

b) What is meant by testing defects? Explain it in detail **[7]**

OR

Q8) a) Distinguish between White Box testing and Black box Testing. What is use of structural testing? **[6]**

b) Explain different types of static analysis tools. **[6]**

Q9) a) Write short note on : **[6]**

i) Validation Testing

ii) Unit Testing

b) What is domain testing? Explain its use. **[5]**

OR

Q10) a) Explain the need of adhoc testing? **[5]**

b) Write short note on: **[6]**

i) Integration Testing

ii) Specification based testing

Q11) a) What are the challenges and best practices encountered in problem resolution? **[6]**

b) Explain Testing the shipment unit. **[6]**

OR

Q12) a) Explain the different tools and repositories present in problem reporting phase. **[6]**

b) Write short note on: **[6]**

i) Challenges in software maintenance.

ii) Best Practices for software maintenance.

Total No. of Questions : 12]

SEAT No. :

P2347

[Total No. of Pages : 3

[5156] - 56
TYMCA (Engg. Faculty)
Neural Network and Fuzzy Logic (Elective - II)
(2008 Course) (Semester-V)

Time : 3 Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) **Answers to the two sections should be written in separate answer books.**
2) ***Answer any three questions from each section.***
3) ***Neat diagrams must be drawn wherever necessary.***
4) ***Figures to the right side indicate full marks.***
5) ***Assume suitable data if necessary.***

SECTION - I

Q1) a) Define learning rule? Demonstrate-using an example to conclude the comparison between the supervised and unsupervised learning algorithm? **[6]**

b) What is the significance of transfer function? List the different types of transfer functions? If the input to a single input neuron is 2.0, its weight is 1.3 and its bias is 3.0.,what is the output of the neuron if it has the following transfer function. **[6]**

i) Hardlimit

ii) Linear

OR

Q2) a) Explain why a single-layer perceptron cannot solve the XOR problem. Use an X_1 vs. X_2 plot to show that a straight line cannot separate the XNOR states. List the several aspects to keep in mind when selecting an appropriate neural network structure. **[6]**

b) Explain the major difference between a conventional (serial) computer and a neural network. **[6]**

P.T.O.

Q3) a) Give the comparison between the radial basis-function network and the multilayer perceptron? Train the home made robot using recurrent back propagation algorithm. **[6]**

b) Explain in detail the procedure for designing the neural network using Competitive learning? **[6]**

OR

Q4) a) What is an Activation function? Explain Sigmoidal function in detail. **[6]**

b) Define Bias, Weight, Learning rate and Momentum factor. **[6]**

Q5) a) What do you mean by error back propogation? How weigts are updated during training process? Discuss the significance of learning constant and momentum term in back propagation training. **[7]**

b) State the generalized delta learning rule for Fed Forward Neural Network. **[4]**

OR

Q6) a) Discuss the training procedure of Kohenan policy? How to build prior Information in neural networks? **[7]**

b) Explain Back-Propagation algorithm in detail. **[4]**

SECTION - II

Q7) a) Draw the block diagram of fuzzy logic. Explain in brief the basic concepts of fuzzy logic control. **[6]**

b) Fuzzy logic provides an alternative solution to non-linear control because it is closer to the real world. Give reasons. **[6]**

OR

Q8) Explain the operation of fuzzy set with suitable example. **[12]**

Q9) a) Write short notes on **[6]**

i) Advantages of fuzzy logic control over the artificial neural networks

ii) Limitation of the recurrent back propagation algorithm

b) Discuss conditional fuzzy proposition and unconditional fuzzy proposition. **[6]**

OR

Q10) a) Write short notes on **[6]**

i) Adaptive Resonance Theory.

ii) Hopfield Networks

b) What are the rules based format used to represent the fuzzy information? **[6]**

Q11) a) What are fuzzy implications? Explain with example. **[6]**

b) Explain Categorical and Qualitative reasoning in detail. **[5]**

OR

Q12) a) Compare between probability theory and possibility theory. **[6]**

b) Explain theory of approximate reasoning. **[5]**