COA 504.2 **Reg.No. ……**

CREDIT BASED FIFTH SEMESTER B.C.A. DEGREE EXAMINATION
OCTOBER 2012
B.C.A
SOFTWARE ENGINEERING (ELECTIVE)

Time: 3 Hrs **Max. Marks: 120**

PART – A

1. Answer any 15 questions from the following: 15x2=30

a.. Define software.

b. Expand KLOC and PDL.

c. List the major components of a software process.

d. Define flexibility and portability of software.

e. What is software metrics?

f. What is corrective maintenance?

g. Define module.

h. What is project control list?

i. What is fan-in and fan-out of a module?

j. What are comments? What is the purpose of using comments in a program?

k. What is most abstract input and most abstract output?

l. Mention the various methods of gathering the information through informal method.

m. What is unit testing?

n. What are test cases? Why they are used?

o. What is acceptance testing?

p. Define static analysis.

q. What do you mean by abstraction?

r. Define fault and failure.

PART – B

Answer any TWO questions from each unit:

UNIT – I

2. a. Explain the various problems to be faced in software engineering.
b. Write the disadvantages of waterfall model.
c. Explain the various phases of a phased development proess. **(6+3+6)**

3. a. Explain the various activities of the software management process.
b. Write a note on prototyping model.
c. Briefly explain the characteristics of software process. **(6+4+5)**

4. a. Explain the SCM life cycle of an item.
b. Explain the iterative enhancement model with the help of a diagram.
c. List various attributes for the quality of the software. **(6+5+4)**

UNIT – II

5. a. Explain the need for SRS.
b. Explain the steps in SDM strategy.
c. Write a note on information hiding. **(4+8+3)**

6. a. List and explain various levels of cohesion.
b. Explain PDL with the help of an example.
c. What are the activities that are undertaken during the critical design review? **(6+5+4)**

7. a. Explain the characteristics of an SRS.
b . Write a note on structure chart.
c. What is data dictionary? Explain it with respect to system design.
(6+5+4)

UNIT – III

8. a. Explain cause-effect graphing with the help of a diagram.
b. Write a note on data flow based testing.
c. Explain the concept of structured programming. **(6+5+4)**

9. a. Explain symbolic execution and execution tree.
b. Explain the programming style for coding.
c. Write a note on control flow based testing. **(6+5+4)**

10. a. Explain i) Equivalence class partitioning
ii) Boundary value analysis
b. Explain the test oracle with the help of a diagram.
c. Write a note on code inspections/reviews. **(6+5+4)**

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COA 504.4 Reg.No.

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CREDIT BASED FIFTH SEMESTER B.C.A. DEGREE EXAMINATION

OCTOBER 2013

B.C.A

DATA MINING

Time: 3 Hrs Max. Marks: 120

PART – A

1. Answer any 15 questions from the following: 15x2=30

a. Define data mining.
b. Define apex cuboid.
c. What is MOLAP?
d. Define the term confidence.
e. Define downward closure property.
f. What is a maximal frequent set?
g. What is unsupervised learning?
h. What is an artificial neural network?
i. State perceptron learning rule.
j. What is partitioning clustering?
k. What is mutation?
l. What is MLP?
m. What is an intrinsic link?
n. What is stemming?
o. What is reference node?
p. What is text mining?
q. What is web usage mining?
r. What is spatial data mining?

PART – B

Answer any TWO full questions from each unit:

UNIT – I

2. a. Explain the different OLAP operations with a neat sketch.
b. What is a fact constellation? Explain it with a neat sketch.
c. What is a data mart? Explain. (5+5+5)

3. a. Explain the different data mining applications.
b. Write a note on star schema.
c. What is a data warehouse? Explain. (5+5+5)

4. a. Compare database management systems with data mining.

b. State the purpose and advantages of OLAP.
c. Explain the drill up and drill down operation with a neat sketch. **(5+5+5)**

UNIT – II

5. a. What is KDD? How is the different from data mining?
b. What is an association rule? Explain the association rule with an example. **(5+10)**

6. a. What are the advantages and short comings of decision tree classification?
b. Write a note on splitting criteria. **(10+5)**

7. a. Explain the enrichment and coding stages of KDD.
b. Compare agglomerative clustering with divisive clustering.
c. What is categorical clustering? **(5+5+5)**

UNIT – III

8. a. Describe the structure of an artificial neuron with activation function.
b. Describe two different architectures of feed forward network. **(5+10)**

9. a. What is web mining? Explain the importance of web mining.
b. What is competitive learning? Describe the competitive learning technique employed in Kohonen's sum.

10. a. What is web usage mining? What do you mean by general access pattern tracking and customized usage tracking?
b. What is a genetic algorithm? Explain. **(7+8)**

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COA 504.2(R) **Reg. No. ……**

CREDIT BASED FIFTH SEMESTER B.C.A. DEGREE EXAMINATION
OCTOBER 2014
B.C.A
SOFTWARE ENGINEERING

Time: 3 Hrs **Max. Marks: 120**

PART – A

1. Answer any 15 questions: **15×2**

a. Define software engineering.

b. What is runaway project?

c. What is adaptive maintenance?

d. What is unit testing?

e. Define software metrics.

f. What is integration testing?

g. Mention any one advantage of prototype model.

h. What do you mean by verification?

i. Write the symbol used to represent process in DFD.

j. What is evolutionary prototyping?

k. Define most abstract input.

l. What is structural testing?

m. What is the goal of testing?

n. What is CMM?

o. What is black box testing?

p. What do you mean by information hiding?

q. What is stepwise refinement?

r. What is the goal of code review?

PART – B

Answer any TWO questions from each unit:

UNIT – I

2. a. Briefly explain software problem.
b. Explain phased development process in Software Engineering approach. **(7**

3. a. Explain the components of software process.
b. Explain different characteristics of software process.
c. What are the limitations of waterfall model? **(4+8+3)**

4. a. With a neat diagram, explain spiral model.
b. Explain the major components of SCM. **(7+8)**

UNIT – II

5. a. What is SRS? Explain the need for SRS.
b. Explain requirement process with a diagram.
c. Write a note on data dictionary. **(5+6**

6. a. Explain functional abstraction and data abstraction.
b. What is coupling? Explain different types of coupling.
c. Explain structure chart with an example. **(4+5+6)**

7. a. Explain pre-conditioning and post-conditioning with an example.
b. Explain PDL with an example.
c. Write a note on
i) Design walkthrough ii) Critical Design Review. **(5+4**

UNIT – III

8. a. Explain the general rules for writing a readable code.
b. Write a note on internal documentation.
c. Explain the concept of information hiding. **(6+5+4)**

9. a. Write a note on symbolic execution and execution tree with an example.
b. Define Error, fault, failure.
c. What are test oracles? Explain. **(7+3**

10. a. Write a note on top-down and bottom-up approaches for testing.
b. Explain boundary value analysis.
c. Explain the concept of equivalence class partitioning. **(5+5**

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COA 504.4 Reg.No. .....

CREDIT BASED FIFTH SEMESTER B.C.A. DEGREE EXAMINATION
OCTOBER 2014
B.C.A
DATA MINING

Time: 3 Hrs Max. Marks: 120

PART – A

1. Answer any 15 questions from the following: 15x2=30

a. What is a data mart?
b. Define base cuboid.
c. What is ROLAP?
d. What is metadata?
e. What is a frequent episode?
f. Define the term support.
g. What is supervised learning?
h. Define clustering.
i. What is RBFN?
j. What is a rough set?
k. What is a genetic algorithm?
l. What is a perceptron?
m. What is page rank?
n. What is index node?
o. What is a transverse link?
p. What is sequence mining?
q. What is cocitation?
r. What is multimedia data mining?

PART – B

Answer any TWO full questions from each unit:

UNIT – I

2. a. What is a data cube? Explain with an example.
b. What is a Snowflake schema? Explain with a neat sketch.
c. Compare ROLAP with MOLAP (5+5+5)

3. a. Describe the warehouse architecture with a sketch.
b. Explain the roll up and roll down operations.
c. Explain the application areas of data mining. (5+5+5)

4. a. State the difference between DBMS and Data Mining.

b. Explain dimensional modeling with a suitable example.
c. Explain the verification model. **(5+5+5)**

UNIT – II

5. a. What is numerical clustering? How is it different from categorical clustering?
b. Explain the various stages of KDD with a neat sketch.

(5+10)

6. a. What is a decision tree? Explain the decision tree with the help of an example.
b. Write a note on splitting criteria? **(10+5)**

7. a. Explain the apriori algorithm with an example.
b. Explain the hierarchical clustering. **(10+5)**

UNIT – III

8. a. What is an MLP? Explain it with a neat sketch.
b. What is unsurpervised learning? Explain.
c. Explain web structure mining. **(5+5+5)**

9. a. What is a neural network? Explain the perception model with activation function.
b. Write a note on text mining.
c. Explain the genetic algorithm life cycle. **(5+5+5)**

10. a. Write note on RBT with example.
b. Explain mutation will a suitable example.
c. Explain the application of neural networks. **(5+5+5)**

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COA 504.4 Reg. No. .....

CREDIT BASED FIFTH SEMESTER B.C.A. DEGREE EXAMINATION
OCTOBER 2016
B.C.A
DATA MINING

Time: 3 Hrs. Max. Marks: 120

PART – A

1. Answer any ELEVEN questions from the following: 11×2=22

a. Define data mining.
b. Define base cuboid.
c. What is machine learning?
d. What is KDD?
e. What is clustering?
f. Define the term support.
g. What is decision tree?
h. What is RBFN?
i. What is splitting criterion?
j. Define temporal data mining.
k. What is neural network?
l. What is a perceptron?
m. What is a traverse link?
n. What is index node?
o. What are support vector machines?
p. What is multimedia data mining?
q. What is information extraction?
r. Define web structure mining.

PART – B

Answer any TWO full questions from each unit:

UNIT – I

2. a. Explain datawarehouse architecture with neat diagram.
b. Explain various stages of KDD.
c. Compare ROLAP with MOLAP. **(5+5+5)**

3. a. Explain 2 different types of datamarts.
b. Explain the roll up and roll down operations.
c. Explain the application areas of data mining. **(5+5+5)**

4. a. Differentiate DBMS and Data Mining.
b. Explain issues and challenges in datamining.
c. Explain the verification model. **(5+5+5)**

UNIT – II

5. a. Explain a priori algorithm with an example.
   b. What is numerical clustering? How it is different from categorical clustering. **(10+5)**

6. a. What are the advantages and short comings of decision tree classifications?
   b. Write a note on splitting criteria. **(10+5)**

7. a. Explain the partition algorithm with an example.
   b. Explain the categorical clustering algorithms. **(10+5)**

UNIT – III

8. a. Explain artificial neuron with activation function.
   b. Explain MLP? **(10+5)**

9. a. What is meant by Perceptron Learning Role?
   b. Explain web content mining with a neat diagram. **(5+10)**

10. a. Write a note on Text Mining.
    b. Explain crossover with a figure.
    c. Explain the application of neural networks. **(5+5+5)**

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