

Saraswati Education Society's
Saraswati College of Engineering, Kharghar
Information Technology Department
Academic Year 2014-15(Odd SEM)
Unit Test-1

Class/Sem: BE/VII

Duration: 1Hr

Date: 26/08/2014

Subject: Data warehousing & Mining Business Intelligent

Marks: 25

Note: Q.1 is compulsory and attempt any 2 question from remaining.

Q.1]: Explain major issues in data mining [05M]

Q.2]: What is noisy data? Explain different techniques to remove noise from data [10M]

Q.3]: What is fact less fact table? A manufacturing company has a huge sales network. To control the sales, it is divided in the regions. Each region has multiple zones. Each zone has different cities. Each sales person is allotted different cities. The object is to track sales figure at different granularity levels of region and also to count the number of Products sold. Create both data warehouse schema to take into consideration of above granularity levels for region, sales person and the quarterly, yearly and monthly sales. [10M]

Q.4]: Apply the Apriori Algorithm on the following data with minimum support & confidence=70% [10M]

TID	List of items IDs
T100	I1,I2,I5
T200	I2,I4
T300	I2,I3
T400	I1,I2,I4
T500	I1,I3
T600	I2,I3
T700	I1,I3
T800	I1,I2,I3,I5
T900	I1,I2,I3

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Unit Test-1

Class/Sem: Final Year/ VII

Subject: Digital signal& Image processing

Date: 26/08/2014

Duration: 1 Hrs.

Marks: 25

Note: Q.1 is Compulsory & solves any two from remaining.

Q.1]: Classify the following DT system on linearity, time variance, causality

i]: $Y(n) = 2x(n) + x(n-1)$ ii]: $y(n) = x(2n) + 2$ [05M]

Q.2]: a]: If $x(n) = \{2, -1, 4, 3\}$ & $h(n) = \{-2, 1, 2\}$ find linear convolution using circular Convolution. [05M]

b]: Find DCT of given image. [05M]

2	0	1	0
1	1	0	1
1	0	0	1
2	1	2	3

Q.3]: a]: Given $x(n) = n+1$ & $N=4$ find $X(K)$ using DIT FFT algorithm. [05M]

b]: Compute Hadamard matrix for $N=8$. [05M]

Q.4]: Find the DFT of the given sequence $x(n) = \{1, 2, 3, 4\}$ using the result obtained $X(k)$ & not

Otherwise find the DET of the signal $x_1\{1, 4, 3, 2\}$ [10M]

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Class/Sem: Final Year/ VII

Subject: Simulation & Modeling

Date: 26/08/2014

Duration: 1 Hrs.

Marks: 25

Q.1]: Explain steps in Simulation study?

[10M]

Q.2]: A bank has Drive in Teller & room for one additional customer to wait. The time between Arrival and service time distribution are as:

[10M]

Inter arrival Time	0	1	2	3	4	5
Probability	0.09	0.17	0.270	0.20	0.15	0.12

Service Time	1	2	3	4
Probability	0.20	0.40	0.28	0.12

Q.3]: Poisson Process.

[05M]

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Class/Sem: Final Year/ VII

Subject: Software Testing and Quality Assurance

Date: 27/08/2014

Duration: 1 Hrs.

Marks: 25

Q.1]: Explain system integration techniques. [10M]

Q.2]: Explain role of testing and Define verification and Validation. [05M]

Q.3]: Write a short note on Control flow graph. [05M]

Q.4]: a]: Draw the DFG for binary search. [05M]

Or

Q.4]: b]: Explain test levels with V – model. [05M]

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Class/Sem: Final Year/ VII

Subject: Artificial Intelligence

Date: 28/08/2014

Duration: 1 Hrs.

Marks: 25

Note: Q.1 is compulsory. Answer any 2 out of rest.

Q.1]: Write short notes on the following:

- [a] Intelligence
- [b] Artificial Intelligence
- [c] Rational Agent

Q.2]: What is PEAS descriptor? Explain PEAS descriptor for taxi driver and English tutor.

Q.3]: Explain agent program and agent function for vacuum cleaner world.

Q.4]: Compare DFS and BFS with example.

Q.5]: What are the various steps of knowledge Engineering process with example