Class / Semester: II Year /IV Semester B.Tech Information Technology

Name of the Subject: MA6453-Probability and Queuing Theory.

Name of faculty member: Dr.S.Maheswari

1. State the conditions under which the Poisson distribution is a limiting case of the binomial distribution and show that under these conditions the binomial distribution is approximated by the Poisson distribution.

2. One-fifth percent of the blades produced by a blade manufacturing factory turn out to be defective. The blades are supplied in packets of 10. Use Poisson distribution to calculate the approximate number of packets containing no defective, one defective and two defective blades respectively in a consignment of 100000 packets. $(e^{-0.02} = 0.9802)$.

3. If the probability of committing an error of magnitude x is given by $y = \frac{h}{\sqrt{\pi}} e^{-h^2 x^2}$; compute the

probable error from the following data: m_1=1.305; m_2=1.301 and m_3=1.295.

4. A certain firm has plant A, B, C producing IC chips. Plant A produces twice the output from B and B produces twice the output from C. The probability of a non-defective product produced by A, B, C are respectively 0.85, 0.75 and 0.95. A customer receives a defective product. Find the probability that it came from plant B.

5. A given lot of IC chips contains 2% defective chips. Each is tested before delivery. The tester itself is not totally reliable. Probability of tester says the chip is good when it is really good is 0.95 and the probability of tester says chip is defective when it is actually defective is 0.94. if a tested device is indicated to be defective, what is the probability that it is actually defective.

Class / Semester: II Year /IV Semester B.Tech Information Technology

Name of the Subject: CS6401/Operating Systems.

Name of faculty member: Mrs.G.Abinaya

1. Explain mainframe system, desktop system, multiprocessor system with its applications.

2. Real time operating system applications

3. Dining philosophers problem in operating system

4. Overlays advantages and disadvantages

5. Explain about RAID structure.

6. Role of intruders - malicious software – Trusted systems

Class / Semester: II Year /IV Semester B.Tech Information Technology

Name of the Subject: CS6402/Design and Analysis of Algorithm.

Name of faculty member: Mr.K.Selvaraj

1. Explain Decrease and conquer techniques.

2. Describe Graph Coloring with an example.

3. Discuss flow shop scheduling.

4. Explain tree vertex splitting.

5. Write short notes on Transform and conquer techniques.

Class / Semester: II Year /IV Semester B.Tech Information Technology

Name of the Subject:EC 6504 Microprocessor and Microcontroller

Name of faculty member: Mr.M.Thangavel

1. Interface an 8-digit 7 segment LED display using 8255 to the 8086 microprocessor system and write an 8086 assembly language routine to display message on the display.
2. Design a microprocessor system to control traffic light. The traffic should be controlled by the following manner.
   a. Allow traffic from west to east and east to west transition for 20 seconds.
   b. Give transition period of 5 seconds (yellow bulb on)
   c. Allow traffic from north to south and south to north for 20 seconds
   d. Give transition period of 5 seconds (yellow bulb on)
   e. Repeat the process
3. Write an assembly language program to control conveyer belt using stepper motor and 8051 controller. Belt moves continuously at rate of 1 step/sec but stops for 5sec. When external interrupt occurs and then continues to move.
4. Interface 8-bit, 8 channel ADC to 8051. Write assembly language program to convert CH0, CH3 and CH7 and store the result in external memory location starting from C000H.Repeate procedure for every 1sec.
5. An 8051 based system requires external memory of four 4 kbytes of SRAM each ant two chips of EPROM of size 2kybytes. The EPROM starts at address 2000H. SRAM address map follows EPROM map. Give the complete interface.

Class / Semester: II Year /IV Semester B.Tech Information Technology

Name of the Subject: CS6403-Software Engineering

Name of faculty member: Mr.V.Matheswaran

1. Requirement metrics
2. Business Use case Model
3. Requirement Elicitation
4. Quality Attribute Workshop
5. Requirements management tools