

MODEL QUESTIONS

Unit V- Applications of Physics in computing

1. Discuss Binomial distribution with an example.
2. Discuss Poisson's probability distribution with an example.
3. Discuss normal distribution with an example
4. What is Monte Carlo simulation method? Discuss the steps involved in this method.
What are the advantages of this method?
5. Discuss ODD rule in animation. How base distance and distance between each frame are determined using odd rule multipliers for i) an object speeding up and ii) an object slowing down
6. Discuss different parts of jump involved in jumping animation. Explain how physics of mechanics is involved in making character jumping animation.

Numericals

1. In an experiment, a GM counter is used to record the beta particles emitted per second by 1g of ^{90}Sr . If, on an average, 4 particles are emitted per second, what will be the probability that 2 beta particles will appear?
2. A box contains one blue and six pink balls. The ball is picked up from the box and is put back into the box. All the balls are mixed thoroughly in the box. Using Poisson's distribution, determine the probability of picking blue ball exactly 3 times.
3. The jumping animation sequence consists of 6 frames with push height 0.5m and stop height 0.6m. Calculate the stop time.