Department of Computer Science

M.Sc. CS(SEM-7)

Data Analytics

Assignment-III

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1. Explain simple and multiple linear regression in detail.
2. What is R2 score?
3. Explain least squares method with example.
4. Write the difference between Discrete and Continuous random variable.
5. What is Hyper geometric probability distribution?
6. The number of 5 digits telephone numbers having at least one of their digits is repeated.
7. In how many ways can a committee be formed of 5 members from 6 men and 4 women if the committee has at least one woman.
8. Figure – out the number of ways can 5 women and 3 men be seated in a row so that two men are together?
9. Three men have 6 coats 5 belts and 4 caps. The number of ways they can wear them.
10. The number of three- digit numbers that can be formed with 1,2,3,4 is, when repetition is allowed.
11. Let E and F are events of a experiment such that P(E) = 3/10 P(F) = ½ and P(F|E) = ⅖. Find the value of (i) P(E ∩ F) (ii) P(E|F) (iii) P(E U F).
12. Two dice are rolled, if it is known that the second dice always shows 4, find the probability that the numbers appeared on the dice have a sum 6.
13. Find the probability of getting at least 5 times head-on tossing an unbiased coin for 6 times by using the binomial distribution.
14. There are four fused bulbs in a lot of 10 good bulbs. If three bulbs are drawn at random with replacement, find the probability of distribution of the number of fused bulbs drawn.(binomial)
15. As only 3 students came to attend the class today, find the probability for exactly 4 students to attend the classes tomorrow. (poisson distribution)
16. Consider selecting 6 cards from a pack of cards without replacement. What is the probability that 3 of the cards will be black? (hypergeometric)

17. For some computers, the time period between charges of the battery is normally distributed with a mean of 50 hours and a standard deviation of 15 hours. Rohan has one of these computers and needs to know the probability that the time period will be between 50 and 70 hours. (standard normal distribution)

18. The speeds of cars are measured using a radar unit, on a motorway. The speeds are normally distributed with a mean of 90 km/hr and a standard deviation of 10 km/hr. What is the probability that a car selected at chance is moving at more than 100 km/hr?

19. Write the properties of Normal distributions?

20. Write the difference between Normal distribution and Binomial distribution.