

SSR DEGREE COLLEGE (AUTONOMOUS) NIZAMABAD
I-SEMESTER INTERNAL-I
STATS
QUESTION BANK

I. Choose the Correct Answers

1. How many types of probability distributions we have ()
a)2 b)3 c)4 d)5
2. In this which is not a discrete probability distribution ()
a)Binomial b)Normal c)Poisson d)None
3. In binomial distribution $\mu_3 =$ _____ ()
a)np (q-p) b)npq (p-q) c)npq(q-p) d)None
4. Additive property of geometric distribution ()
a) $p(1-qe^t)^n$ b) $P^n (1-qe^t)$ c) $p (1-qe^t)$ d) $P^n (1-qe^t)^n$
5. The second cumulant of Negative binomial dist ()
a) rq/P^2 b) rq^2/p c) rq/p d)None
6. Parameter of negative binomial dist ()
a)(n,p) b)(r,p) c) λ d)P
7. In poisson dist mean and variance _____ ()
a) $\bar{x} > \sigma^2$ b) $\bar{x} < \sigma^2$ c) $\bar{x} = \sigma^2$ d) $\bar{x} \neq \sigma^2$
8. M.G.F of poisson distribution is _____ ()
a) e^λ b) $e^{\lambda+1}$ c) $e^{\lambda(e-1)}$ d) $e^{\lambda(e^t-1)}$
9. Mean of hyper geometric distribution is _____ ()
a) $\frac{Mn}{N}$ b) $\frac{MN}{n}$ c)MN d)None
10. Poisson distribution is _____ Skewed ()
a)Negatively b)Positively c)Symmetrical d)None
11. Mean of poisson distribution ()
a) λ b) λ^2 c)2 λ d) λ^3
12. Variance of poisson distribution ()
a) λ b) λ^2 c)2 λ d) λ^3
13. Binomial distribution, ()
a)up b)u c)p d) np^2
14. Binomial distribution variance____ ()
a)np b)npq c)nq d)None
15. MGF of binomial distribution ()
a) $p+q)^n$ b) $(q+pe^t)$ c) $(q+pe^t)^n$ d)None
16. Mean of normal distribution ()
a) μ b) σ^2 c) μ_2 d)None
17. Variance of normal distribution ()
a) μ b) σ^2 c) μ_2 d)None

18. Parameters of normal distribution ()
 a) (μ, σ^2) b) (n, p) c) (p, q) d) None
19. Parameters of rectangular distribution ()
 a) (a, b) b) $[a, b]$ c) m, n d) None
20. Parameters of Hyper geometric distribution ()
 a) (m, n) b) M, N, P c) M, n, N d) None

II. Fill in the blanks

- In binomial distribution "P" is indicate as _____
- In poisson dist $\mu_3 =$ _____
- Negative binomial distribution the trials are _____
- P.m.f of geometric dist $p(x) =$ _____
- Recurrence relation for geometric dist $P(x+1) =$ _____
- P.G.F of poisson dist _____
- If $p=4\%$, $n=200$, then mean of poisson dist _____
- M.G.F of Negative binomial dist _____
- The binomial dist, $\phi_x(t) =$ _____
- The mean and variance of binomial dist are 3 and 4 the $p =$ _____
- MGF of poisson distribution _____
- PGF of poisson distribution _____
- CHF of binomial distribution _____
- Mean of Bernoulli distribution _____
- Mean of uniform distribution _____
- Variance of uniform distribution _____
- Mean of negative binomial distribution _____
- Variance of negative binomial distribution _____
- Mean of geometric distribution _____
- MGF of geometric distribution _____

III. Descriptive Questions

- Define Binomial Distribution
- Define Poisson Distribution
- Define Negative binomial distribution
- Define Bernoulli distribution
- Define Hyper Geometric distribution
- Define Rectangular distribution
- Define normal distribution
- Define uniform distribution
- Derive MGF of binomial distribution
- Derive PGF of poisson distribution