

Ola Electric -Research Engineer Test (AI & Data Science) in IITR:

45 minutes test -2 sections:

Sec-1 : Statistics -16 MCQs

Sec-2 Data Science-14 MCQs

Sec-1

Q1) what is Mode?

Q2) given data: 34,15,21,30,31,32. Find Stand Dev.

Q3) Correlation bw no. of study hours & grades will be?(No data was given)

Options: +ve,-ve,0 ,none

Q4) given variance of $x_1, x_2, x_3, \dots, x_n = 6$. Find var of $x_1+k, x_2+k, x_3+k, \dots, x_n+k$.

Options: $6+k, 6-k, 6, 0$

Q5) Correlation bw Age of Husband and Age of Wife . (No data was given)

Options: +0.85,-0.85,+1,-1

Q6) given class intervals, and their frequencies in a table. Some frequencies were given and some were unknown as f_1, f_2, f_3 . Total sum of frequencies=100. And mean =15.72. And $f_1:f_2=3:2$ and $f_1+f_2+f_3=50$. Find f_1 ?

Q7) Covariance pe theoretical ques tha

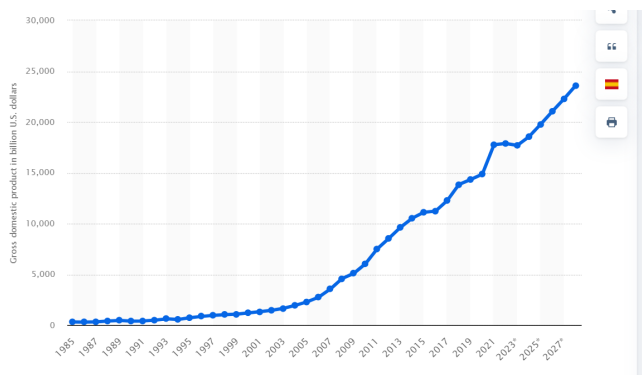
Q8) If covariances of data is 0. Then eigen values in covariance matrix will be same as:

Options: variance, covariance, 1, none

Q9) GDP of china vs Year ka ek graph given tha. What mathematical relationship it follows:

Options: Sigmoid, Exponential, Logarithmic, Logistic.

is type ka hi graph tha almost:



Q10 Ek graph given tha . It was a straight line parallel to y axis, passing through points (5,1),(5,2),(5,3) & (5,4). Find correlation bw x & y.
Options: +1,-1,0,0.5

Q11) Which of the following cannot be value of correlation coefficient:
Options: +1,-1,0,-1.5

Q12) In supervised clustering, given K clusters, N_k points belonging to each cluster and total N points. Find time complexity of computing K centroids. Aisa kuch tha.
Options: $O(N*K)$, $O(N*N*k)$, $O(N*N+k)$, is tarah k kuch options the

Q13) Given 10000 data points, unpe decision tree build krenge to ensemble kitne points pe hoga and jo split data pe hoga vohi same split leaves pe bhi hoga kya, is type ka kuch ques tha.
Options: (100,yes) , (100,no), (1000,yes) , (1000,no) ye simplified way me likha hai.

Although ye 12 nd 13 ques ML k hain, but stats section me puche hue the :)
Baaki ques yaad nhi , hypothesis testing pe the

Rest kaafi calculations thi paper me , in the short time

Sec-2 Data science : isme koi ML ka sawal nhi tha, only p-test,z-test,Confidence interval,Chi-square test pe hi ques the mostly, was weird and too calculative

Q1) Given recall=60% and precision = 90%. Find False Positive rate.

Q2) what is Type-II error. Options : FP,FN,TP,TN

Q3) Data was given for x and y in table. A linear regression was there. Point which is $2*\sigma$ away from mean was labelled is called outlier. Find z-score of the outlier among given data points.

Itne hi yaad hn

Similarly as hi ques the saare outlier,z-score,related . many were weird and lengthy .So in statistical tests ko acche se pad lena in depth and their formulas and usage.

ML algos se ques nhi puche ,hardly 1-2 the. Probability se koi bhi ques nhi tha. It was a pure statistics test ,I would say. Deep Learning,NLP se ek bhi ques nhi tha.