DAYANANDA SAGAR COLLEGE OF ENGINEERING
(An Autonomous Institute Affiliated to VTU, Belagavi)
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DEPARTMENT OF MATHEMATICS

COURSE: MATHEMATICS FOR COMPUTER ENGINEERS

COURSE CODE: 21MAT31A

MODULE – 5: SAMPLING DISTRIBUTION AND OPTIMIZATION TECHNIQUES

Multiple Choice Questions

Question Number	Question
1.	Sample error of sample mean with μ as the population mean , σ as the standard deviation and sample size n is given by (a) σ (b) σ/n (c) $\sigma/\sqrt{n}$ (d) none of these
2.	A hypothesis is false but accepted, then there is an error of type (a) II (b) I (c) both I & II (d) none of these
3.	Sample is a subset of (a)Data (b) group (c) population (d) distribution
4.	Any numerical value computed from population is called (a)Statistic (b) bias (c) sampling error (d) parameter
5.	Sampling in which a sampling unit cannot be repeated more than once is called (a) Sampling without replacement (b) simple sampling (c) Sampling with replacement (d) none of above
6.	The finite population correction factor is (a) n-N/N-1 (b) N-n/N-1 (c) N-1/N-n (d) none of these
7.	Gradient Descent is an optimization algorithm used for, a) Certain Changes in algorithm b) minimizing the cost function in various machine learning algorithms c) maximizing the cost function in various machine learning algorithms d) remaining same the cost function in various machine learning algorithms
8.	_____ processes all the training examples for each iteration of gradient descent. a) Stochastic Gradient Descent b) Batch Gradient Descent c) Mini Batch gradient descent d) None of the above
9.	Which is the fastest gradient descent? a) Batch Gradient Descent b) Stochastic Gradient Descent c) Mini Batch gradient descent d) none of these
10.	If the cost function is convex, then it converges to a _____ a) global maximum b) global minimum c) local minimum d) local maximum