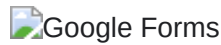


Quiz 3 Module 4

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Sat 2/5/2022 6:49 PM

To: Kowsik Nandagopan D <fmml20210088@ihub-data.iiit.ac.in>



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Quiz 3 Module 4

Quiz 3 for Module 4: Perceptron and Gradient Descent of the Foundations in Modern Machine Learning course.

Email *

fmml20210088@ihub-data.iiit.ac.in

Your FMML Roll Number *

FMML20210088

You have 100 samples of data and your batch size is 16. How many iterations will it take to go through 1 epoch? *

☐ 5

☒ 6

☐ 7

☐ 8

Stochastic Gradient Descent always converges for any dataset. True or False? *

- ☐ True
- ☒ False

Given function $f(x) = |x^2 + 3| - 1$ defined on \mathbb{R} : *

- ☐ The problem is nonconvex, so it not feasible to find a solution.
- ☐ Newtons Method on minimizing gradients will always converge to the global optimum in one iteration from any starting location
- ☐ Stochastic Gradient Descent will always converge to the global optimum in one iteration
- ☒ All of the above
- ☐ None

If number of samples are 1000, then which of the following are suitable sizes for running mini batch gradient descent? *

- ☒ 32
- ☒ 64
- ☐ 1
- ☐ 1000

One epoch in Stochastic Gradient Descent is the same as one iteration. *

- ☒ True
- ☐ False

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