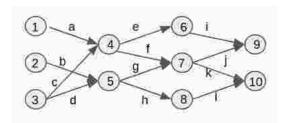
Department of Data Science IIT Palakkad

CS5007: Deep Learning

1400-1450 Quiz 3 (04 Mar 2022) Marks : 10

Instructions

- 1. Write your answers neatly in Blue/Black ink. Do not use pencil / Red ink. If your answer is not legible, you will not get any marks for that.
- 2. Doubts and questions will not be answered during the exam. If you have to make any assumption about unspecified things, write the assumption clearly with justification.
- 3. Answer all parts of a question together. If the parts of a single question are not together, then only the first part will be evaluated. Other parts will not get any marks.
- 4. Write your name and ID number at the top of the answer sheet. Save the pdf with the following naming convention: [name]_dl22_quiz_3.pdf and upload to the designated assignment in LMS. Do not email.
- 5. Write question number clearly for each answer. Draw a line after the answer.
- 6. No hard or soft material are permitted for consultation during the exam.
- 7. There will be partial markings for the questions, so even if you are not able to solve the entire problem be sincere with the steps.
- 1. Consider the following neural network. The output function is softmax. The activation function in the hidden layers is sigmoid. Compute the update equation for c assuming squared loss. You have to show each step clearly with appropriate intermediate variables and a neat final update equation, without that you will not get any marks. You are free to choose your notation, but it should be clearly defined at the beginning.



(10)