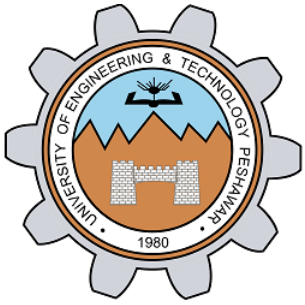

University of Engineering and Technology, Peshawar

Department of Computer Systems Engineering

Final Term Examination Part 1 - Spring 2020 Semester

Course Title: Circuit and Systems 1
Time Allowed: 3 hours

Max Marks: 30
Total Pages: 3 (including this)

INSTRUCTIONS FOR EXAM:

1. Write your name, registration number and page number on the top of every page in your copy (that you are submitting)

2. Your cover page or title page (or the first page) in MS-word should have your name, registration number and the total number of pages (including cover page) that you are submitting

3. Take pictures of all pages that you want to submit and copy them in MS-word file (including software code if you have any)

4. Covert MS-word file to pdf file and submit it in Google Forms file management system. No email submissions will be accepted and no extensions in time will be given under any circumstances.

5. Email the pdf file to your own email address (not Dr. Salman email address) but your own email uetpeshawar domain email address

6. Keep a copy of the pdf file with you as it will be used in viva exams (after 1 week)

7. There are total 3 questions in the final exam. Each answer must be supported by facts and calculations. Please do not skip any calculation (even if it is too simple, still perform the calculations)

8. Save your final file as Yourname_Answers.pdf. If by mistake you upload the question paper again in place of answer sheets, you will get zero marks.

Question 1 - (10 Marks): Use source transformation theory to find the current i_0 in the circuit shown in Figure 1. (Use source transformation theory to covert the current sources in the circuit into voltage sources and then solve the circuit)

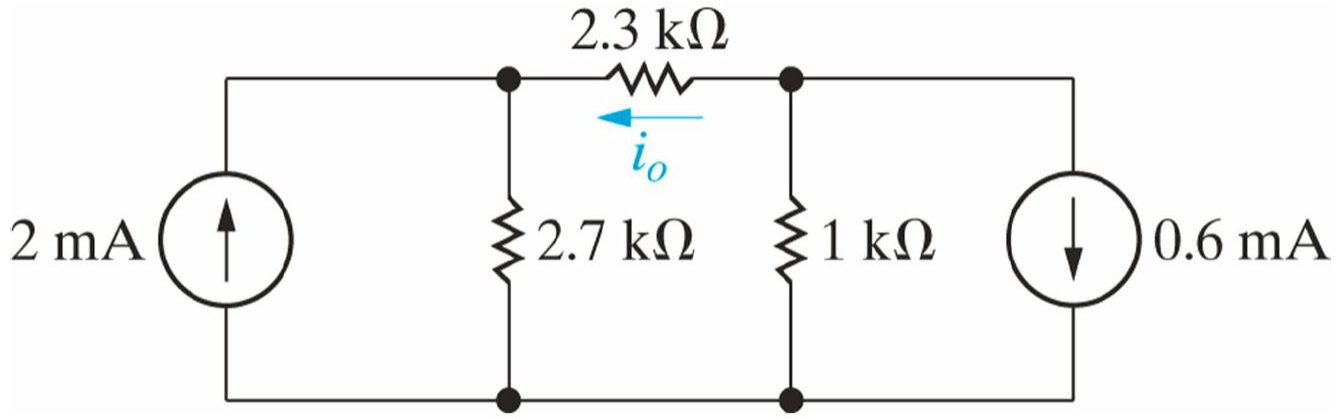

Figure 1: Circuit to consider for Question 1.

Question 2 - (10 Marks): Find the current i in the circuit shown in Figure 2. (The current i is the current across 4Ω resistor)

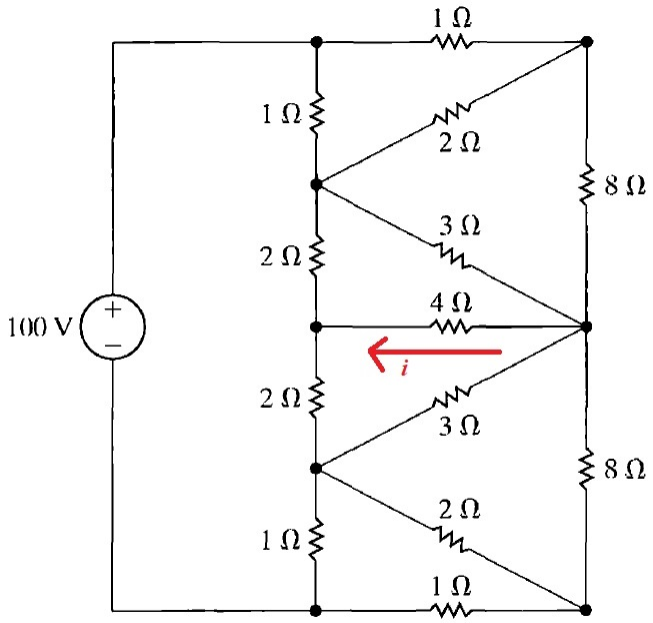

Figure 2: Circuit to consider for Question 2.

Question 3 - (10 Marks): Compute the values of node voltages as shown in Figure 3.

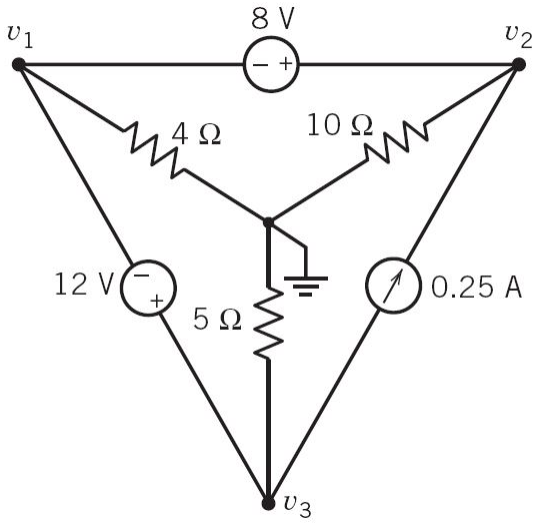

Figure 3: Circuit to consider for Question 3.

The End of Final Term Question Paper
