Spring 2018
Precalculus' Final Examination
nth Semester
Section 000

Objective: Assess understanding of function behavior and calculus readiness. This exam also aims to provide a comprehensive assessment on concepts and definitions that are necessary to be successful in further Mathematics courses.)

General Instructions: Read carefully each exercise. Fill in your *scantron* with a pencil and circle the correct answer on paper as well. Scratch paper is not allowed under any circumstances. All your work must be done in these pages.

- You have up to 120 minutes.

- Every item on the test awards 2 points for each correct answer, for a maximum possible score of 100 points.

- Non-graphing calculators are allowed. TI-84 or similar, including smart devices, are prohibited.

- One half-page formula sheet printed in black ink and showing the instructor's authorization may be used. Any other form of aid is not allowed.

- Mere suspicion of cheating, sharing calculators or using any unfair means of aid is enough to get your test withdrawn.

- When you are done, turn in the examination, your *scantron* and your formula sheet. Failure to do so will result in an automatic failing grade.

SIDE A

Part I. NETWORK THEORY QUESTIONS.

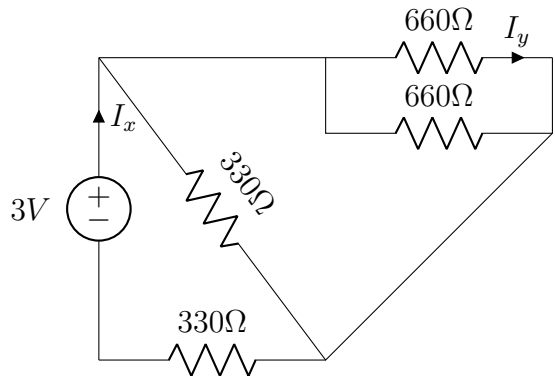1. The current I_y flowing through 660Ω resistance is (Refer Figure 1):

Figure 1: Q.No.1

    A. I_x B. $I_x/2$ C. $I_x/4$ D. $I_x/3$

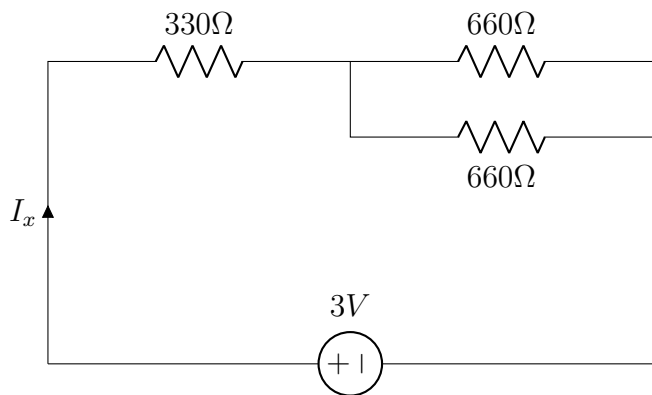2. The voltage across 660Ω resistance is (refer Figure 2): A. $0.65V$ B. $1.5V$ C. $0.72V$

Figure 2: Q.No.2

    D. $0.75V$

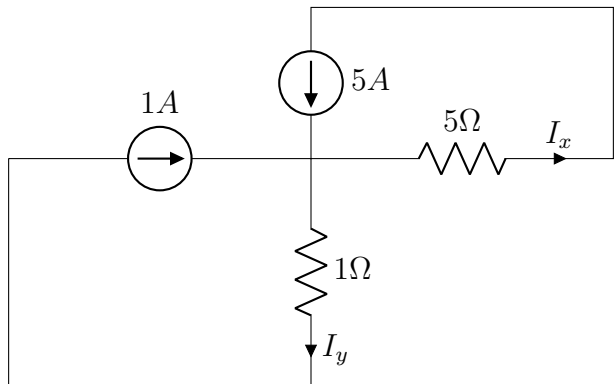3. The current I_x and I_y are (refer Figure 3).   A. $-1A, 5A$ B. $5A, 1A$ C. $1A, 5A$

Figure 3: Q.No.3

    D. $5A, -1A$

4. The current I_1 and I_2 of the circuit shown in Figure 4 are giving by: A. $4A, 4A$
   B. $6A, 6A$ C. $4A, 6A$ D. $6A, 4A$

5. Referring to the circuit of the Figure 5, a $35V$ source is connected to a series circuit of 600Ω and R. If a voltmeter of internal resistance 1.2kΩ is connected across 600Ω, it reads $5V$. The value of R is A. 1.2kΩ B. 2.4kΩ C. 1.4kΩ D. 3.4kΩ
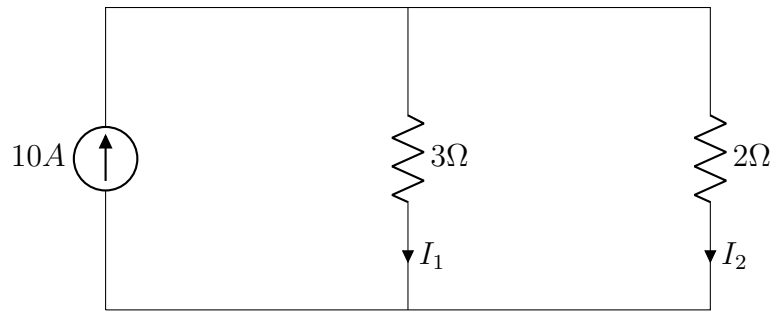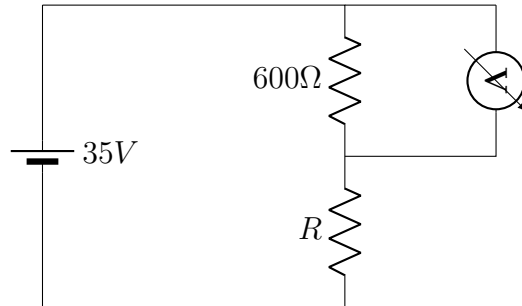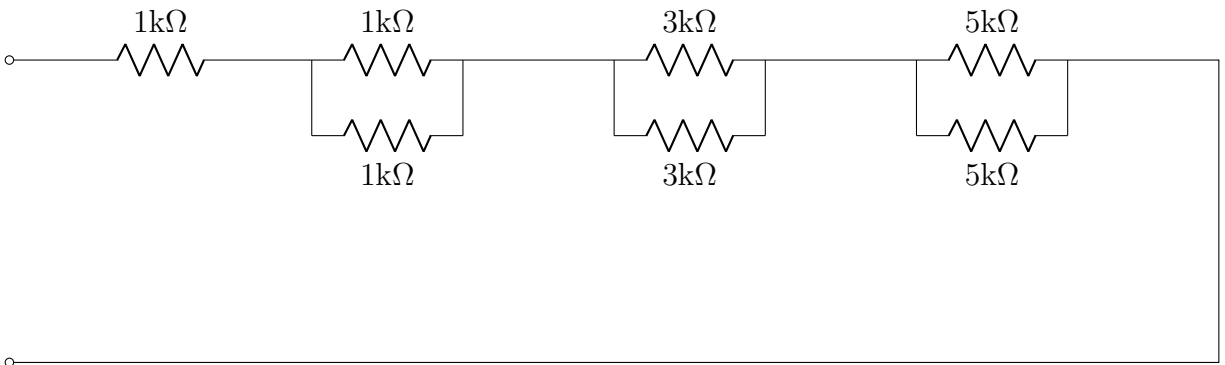
Figure 4: Q.No.4

Figure 5: Q.No.5

Figure 6: Q.No.6

6. The equivalent resistance of the circuit given in Figure 6 is given by   A. $4\,\mathrm{k\Omega}$ B. $10\,\mathrm{k\Omega}$
   C. $5.5\,\mathrm{k\Omega}$ D. $5\,\mathrm{k\Omega}$