NORTH SOUTH UNIVERSITY

EEE/ETE141L.5 Quiz

Full marks: 30

Duration: 40 minutes

Name: _____

ID   : _____

1. Choose the correct answer.   **(6*1=6)**

A. According to Ohm's Law, what does doubling the current mean?

a) The resistance increases by halve.

b) The resistance decreases by two times.

c) The resistance increases by two times.

d) The resistance decreases by halve.

B. Which band of a resistor is known as Tolerance?

a) First band.

b) Second band.

c) Third band.

d) Fourth band.

C. Choose the wrong statement about Ohm's Law.

a) Current is directly proportional to voltage across a resistor.

b) In an I vs V graph, the slope gives the value of 1/R.

c) In a V vs I graph, the slope gives the value of voltage.

d) Keeping the temperature constant, the Law is verified.

D. Choose the right statement from the following.

a) We added a potentiometer in multisim from the BASIC group.

b) In multisim, we can change the value of a resistor in one way only.

c) We can delete a component or wire when the RUN mode is on.

d) No ERROR message is shown when a GND is not added to a circuit.

E. Choose the wrong statement about a potentiometer.

a) A POT can be used as a rheostat.

b) Three terminals of a POT are used to make it work as a rheostat.

c) A rheostat can't be used as a POT.

d) The wiper of a POT changes the value of resistance during measurement.

F. Choose the right statement from the following.

a) There are strips of insulator underneath a breadboard.

b) Multiple output power supply can supply voltage from four ports.

c) The current knob of a multiple output power supply should be placed at maximum before turning on the power supply.

d) Polarity must be emphasized before measuring the resistance of a resistor.

2. What is the use of COM of the right side and V~ of the left side of the DMM? (2)

3. Find out the resistance of this resistor along with its correct range. (2)

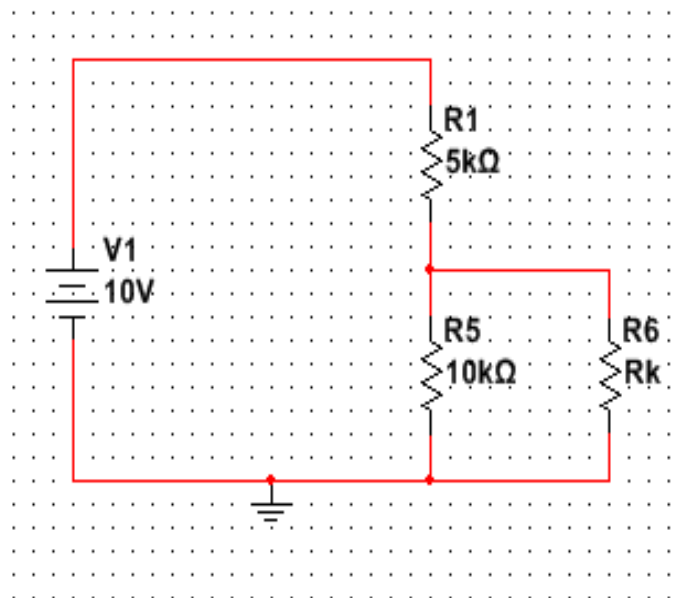**4. A. Find Req from Fig. 1. (USE MULTISIM)** (3+3)

Fig: 1

B. Find the total resistance of Fig.1 theoretically and compare with the value of 4.A.

5. What should be the value of the % in the slider of the POT of Fig. 2 if you want the value of your R to be displayed in the multimeter? **(2)**
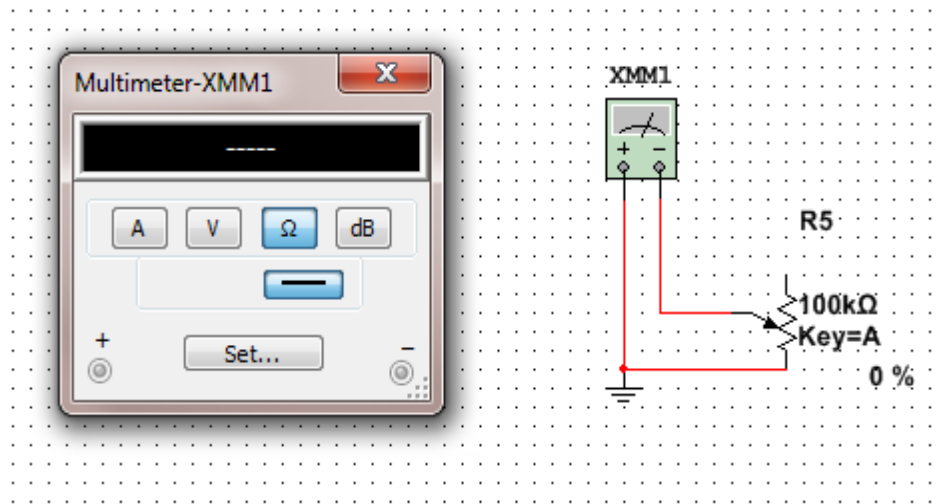

Fig: 2

6. Prove Kirchhoff's current Law using Fig: 3. (USE MULTISIM) **(4)**

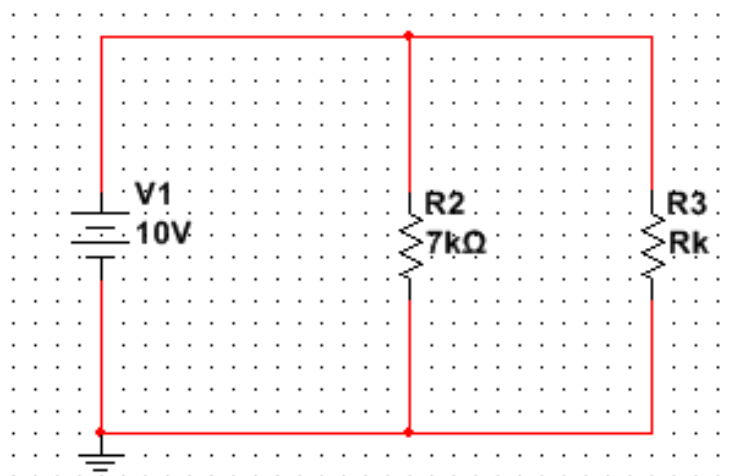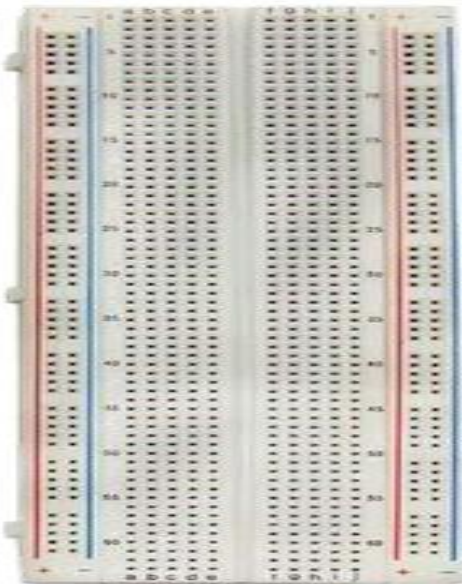**Fig: 3**

7. How would you place R1=3k, R2=4k in the breadboard if you were told to connect those in series? (Show the connection in a free hand diagram) (4)

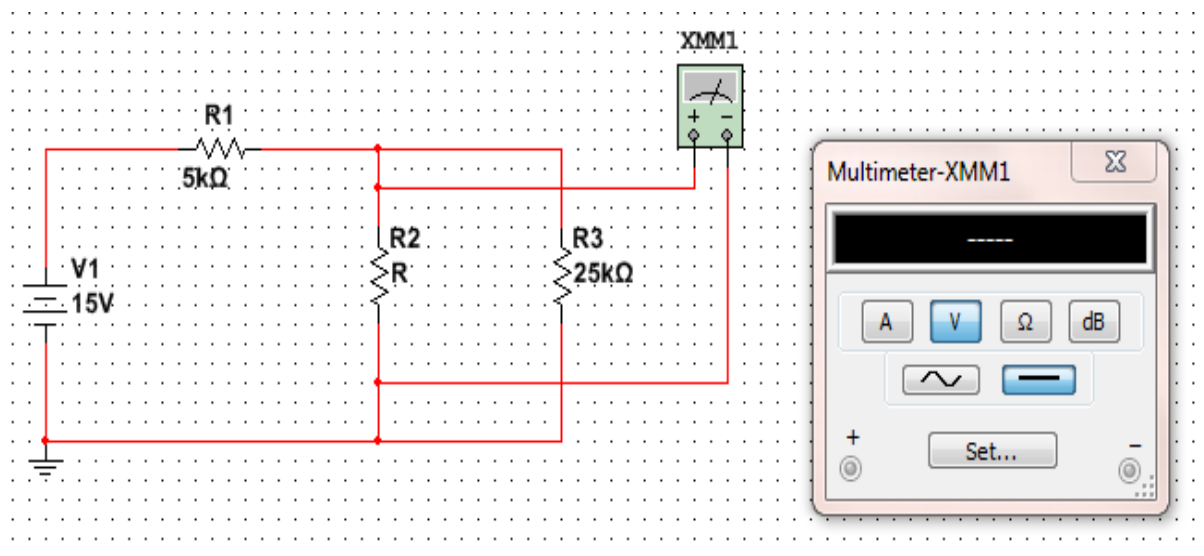**8. Find the value of XMM1 of Fig: 4 if you put the value of R2 as you R. (USE MULTISIM)** (4)

Fig: 4

No.	Student ID	Name	R
1	1612658042	Nasir Ahmad	14
2	1631136042	Md. Ibna Anas Shamrat	16
3	1731407042	Md. Mehedi Hasan	18
4	1831453642	Sadmim Sharker Ridoy	20
5	1831780642	Siam Al Qureshi	22
6	1831856642	Ainul Hoque Shohag	24
7	1831896642	Sarif Md. Tanjil Hossain	26
8	1911417642	Md Maruf Chowdhury	28
9	1912110642	Tasnim Jannat	30
10	1912630642	Shahriar Anik	32
11	1912662642	Abdullah Al Amin	34
12	1921081642	Abdullah Nafis Chowdhury	36
13	1921132042	Al Mehedi Hasan	38
14	1921198042	Gazi Shoaib	40
15	1921304042	Shiblu Rahman Shikat	42
16	1921449642	Sayem Ahmed Sajil	44
17	1921495042	Mollah Albab Al Razi Bin Azad	46
18	1921585042	Rubaiyet Arefin Oishi	48
19	1922215642	Tanjilul Islam Niloy	50
20	1931102042	Shah M Tasrif Zaman	52
21	1931406642	Saifuzzaman	54
22	1931461642	Emon Sarker	56
23	2011059642	Tahsin Tabassum Ali	58

24	2011062642	Tabassoom Rahman	60
25	2011731642	Kanta Saha	62
26	2011898042	Nusaiba Hossain	64
27	2011939642	Zarif Khan	66
28	2012692042	Md. Hasibul Alam Chowdhury	68
29	2013322642	Anika Hossain Sharna	70
30	2014012042	Ibrahim Mohammed Sofi Uddin	72
31	2022319642	Imtiaz Khan	74
32	2112427643	Kazi Miraz	76
33	2112483625	Farhan Labib Rashid	78
34	2122365643	Md. Tartif Ahmed Shaad	80
35	2122404643	Raqib Redwan Ahsan	82
36	2013499045	Mehedi Hasan	84