

Summer2014		
Rnumber	Exam1	Exam2
R00296499	87	100
R00450847	100	87
R00451366	100	100
R00497452	100	87
R00671146	100	100
R00671670	100	100
R00838754	100	100
R00846648	100	87
R00857859	100	100
R00869505	100	100
R00895512	100	100
R00918606	87	87
R00926737	100	100
R00930302	100	87
R00931942	100	100
R00957322	100	100
R00992757	100	100
R01001345	100	100
R01009853	100	87
R01010199	100	87
R01015329	87	
R01038967	100	95
R01070373	100	100
R01082320	100	95
R01106408	100	100
R01118694	100	100
R01125414	100	100
R01207322	100	87
R01309865	100	87
R01343012	100	100

Summer 2014, Exam 2, QQ 1-3

#1. Choose the correct statement.

- An electron tends to go from a region of low potential to a region of high potential
- The potential of a negatively charged conductor must be negative
- If $E = 0$ at a point P then V must be zero at P
- If $V = 0$ at a point P then E must be zero at P
- None of the above are correct

#2. Points R and T are each a distance d from each of two particles with charges of equal magnitude as shown. The work required to move a particle with a negative charge q from R to the center of symmetry of the figure is:

- 0
- kqQ/d^2
- $2kqQ/d$
- $0.8kQqd$

#3. A conducting sphere with radius R is charged until the electric potential just outside its surface is V . The Electric field of the sphere at its surface is:

- zero
- \sqrt{VR}
- $\sqrt{VR^2}$
- \sqrt{VR}
- $\sqrt{VR^2}$

Summer 2014, Exam 2, QQ 4-6

#4. A capacitor charge Q doubles as a result of filling the space between its plates with a dielectric. Choose the correct statement.

- The capacitor was disconnected from the battery in the process of filling
- The capacitor was connected to the battery in the process of filling
- The dielectric permittivity of the dielectric is 4
- The capacitor energy decreased
- None of the above

#5. Two protons are fired 0.2 cm apart. Another proton is shot from infinity and stops midway between the two. What is its initial speed?

- 0
- 0.5 cm/s
- 15 m/s
- 50 m/s
- 30000 km/s

#6. Two capacitors connected in series have the equivalent capacitance of 0.75 mF. However they have the equivalent capacitance of 4 mF when connected in parallel. What are the capacitances of these two capacitors?

1mF & 3mF