THE TWENTY-THIRD ANNUAL SLAPT PHYSICS CONTEST
SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE
APRIL 26, 2008
9 – 11 AM

COMPREHENSIVE PHYSICS TEST

$g = 9.8$ m/s/s $\qquad$ $1\text{cm}^3 = $ milliliter $\qquad$ $R = 8.314$ J/mol/K

$e = 1.6 \times 10^{-19}$ C $\qquad$ The Coulomb constant, $k = 8.99 \times 10^9$ N·m^2/C^2

$c = 3.0 \times 10^8$ m/s

Please answer the following questions on the supplied answer sheet. You may write on this test booklet and keep it for your records. Only the answer sheets will be scored

The cash prizes for this exam will be:
First Prize of $150, Second Prize of $75, and Third Prize of $25.

Certificates of Honorable Mention will be presented to the next highest scoring twenty percent of the contestants, and certificates to the top three scoring schools.

Award Ceremony at 12:30 in this room

Need something to do until 12:30:

2nd Annual Greater St. Louis Botball Challenge
Robots from 4 states will be converging on the SIUE Campus this Saturday for the 2nd annual Greater St. Louis Botball Tournament. 18 teams from Illinois, Indiana, Michigan and Missouri middle and high schools will put their robots to the test in a head-to-head competition.

When: Saturday, April 26th (today). Doors open at 8 am, Seeding rounds begin at 9:30 am, Double Elimination rounds begin about 1:30 pm
What: Autonomous robots (no remote control!) will save crew and plants on a space station facing a massive solar flare.
Where: The Meridian Ballroom in the Morris University Center
Who: Everyone is welcome! Come see the robots! Cheer on your favorite school!

1) d	26) b
2) b	27) d
3) e	28) a
4) e	29) a
5) e	30) a
6) d	31) a
7) b	32) c
8) b	33) c
9) c	34) a
10) d	35) c
11) e	36) d
12) c	37) a
13) e	38) d
14) c	39) d
15) d	40) d
16) a	41) d
17) d	42) a
18) c	43) d
19) a	44) b
20) e	45) c
21) d	46) e
22) c	47) e
23) d	48) d
24) c	49) d
25) c	50) c