

Friday, January 18/13
Physics 122/121

Exam Review

Practice Exam Multiple Choice:

1. C	7. C	13. C	19. D	24. C	29. B
2. A	8. C	14. C	20. C	25. D	30. B
3. B	9. B	15. B	21. A	26. C	
4. C	10. B	16. D	22. B	27. D	
5. C	11. D	17. B	23. B	28. C	
6. A	12. B	18. A			

Practice-Exam.

1. a) 11.0 s
 b) 595 m
 c) 84.3 m/s
 d) $1.86 \times 10^3 \text{ m}$
2. 90.7 N, $42.0^\circ \text{ N of E}$.
3. Omit.
 rel. velocity.

4. a) 413 N
 b) $1.73 \times 10^4 \text{ m/s}$
 c) 828 N ← weight
 $\vec{w} = -828 \text{ N}$
- $7.83 \frac{\text{N}}{\text{kg}} = 7.83 \frac{\text{m}}{\text{s}^2} \downarrow g$

5. $F_f = 153 \text{ N}$, $F_B = 177 \text{ N}$
 $\vec{F}_f = 153 \text{ N, up}$. $\vec{F}_B = 177 \text{ N, up}$.

6.

	V (V)	I (A)	R (Ω)
1	8.10	2.70	3 ←
2	6.90	1.73	4 ←
3	6.90	0.970	7 ←
T	15 V	2.70	5.55

7. $\vec{a} = -7.8 \text{ m/s}^2$
8. $\vec{v}_B = 0.26 \text{ m/s}$, 28° N of W
9. Omit. $\vec{A} = 27 \text{ N}$, $32.0^\circ \text{ W horizontal}$
 $\vec{B} = 67 \text{ N}$, $70.0^\circ \text{ W horizontal}$.
10. $3.9 \times 10^3 \text{ N}$, up ramp

Physics 122/121 Exam

	<u>Level 1</u>	<u>Level 2</u>
Part 1 - MC	30	30
Part 2 - Prob.	9	9
	<hr style="width: 50px; margin: 0 auto;"/>	<hr style="width: 50px; margin: 0 auto;"/>
	110	115

✓ * Formula Sheet

<p>→ <u>Level 2</u></p> <p>→ push/pull</p> <p>→ Incline plane</p> <p>→ 2D collision</p> <p>→ Torque (θ)</p> <p>→ Satellite</p> <p>→ Projectile (θ)</p> <p>→ SHM - Mass on Spring</p> <p>→ Coulomb's Law (3 charges)</p> <p>→ Circuit-Complet</p>	<p><u>Level 1</u></p> <p>→ Vert. circular</p>
--	---

$\left[\frac{\text{km}}{\text{h}} \xrightarrow{\div 3600} \frac{\text{m}}{\text{s}} \right]$	$\text{km} \times \frac{1000}{1} \rightarrow \text{m}$	} Review
$1 \mu\text{C} = 10^{-6} \text{C}$		
