EPHE 245 Motor Learning

MIDTERM TWO

There are FOUR questions for each of the SIX intermediate lessons. The exam invigilator will randomly select TWO of the FOUR questions for each of the SIX introductory lessons. You will select ONE or the TWO randomly selected questions for each of the SIX introductory lessons. So, you will write a total of SIX short answers, ONE for each of the SIX introductory lessons.

At the end of this exam you will self-grade yourself for each of your six answers based on QUALITY (out of 4), QUANTITY (out of 2), EXAMPLES/DIAGRAMS (out of 2), and COMMUNICATION (out of 2).

Lesson Seven

- 1. What the difference between reinforcement and supervised learning?
- 2. What does it mean when we say a choice has "value"?
- 3. What is a prediction error?
- 4. Relate prediction errors to providing feedback and learning.

Lesson Eight

- 1. What is observational learning and how does it differ from reinforcement and supervised learning?
- 2. What is the mechanism that underlies observational learning?
- 3. What are mirror neurons?
- 4. How do mirror neurons facilitate motor skill acquisition?

Lesson Nine

- 1. What is a motor schema?
- 2. How are schemas used in skill production?
- 3. How are schemas used in learning?
- 4. Explain the relationship between variable practice and motor schemas.

Lesson Ten

1. In terms of skill production, what do the primary motor cortex, SMA, and PMC do?

2. What is the role of sensory feedback (primary sensory cortex, posterior parietal cortex) in skill production?

- 3. What role does the cerebellum play in movement production?
- 4. What role does the basal ganglia play in movement production?

Lesson Eleven

- 1. What is specificity of practice?
- 2. How does specificity of practice related to processing of sensory information?
- 3. Provide an example of a learning situation that violates the specificity of practice hypothesis.

4. What are the differences between sensory/motor specificity, context specificity, and processing specificity?

Lesson Twelve

- 1. What is mental practice?
- 2. Discuss Figure 11.11. What are the results?
- 3. Why does mental practice work?
- 4. Review the second reading. What does it tell you about mental imagery works?

EXAM TWO GRADING RUBRIC

Student Name:

QUESTION 1								
Quality				0	1	2	3	4
Quantity				0	1	2	5	-
Examples / Diagrams					1	2		
Communication					1	2		
TOTAL				0	1	2		l
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QUESTION 2				•				
Quality				0	1	2	3	4
Quantity					1	2	3	4
Examples / Diagrams								
Examples / Diagrams					1	2		
Communication TOTAL				0	1	2		
-								
QUESTION 3								
Quality				0	1	2	3	4
Quantity					1	2		
Examples / Diagrams					1	2		
Communication				0	1	2	1	
TOTAL				Ť	1 *		1	I
QUESTION 4								
Quality					1	2	3	4
Quantity					1	2		
Examples / Diagrams				0	1	2		
Communication					1	2		
TOTAL								
QUESTION 5				0	1	2	3	4
Quality							3	4
Quantity				0	1	2		
Examples / Diagrams				0	1	2		
Communication					I	2		
TOTAL								
QUESTION 6								
				0	1	n	3	4
Quality				0	1	2	5	4
Quantity				0	1	2		
Examples / Diagrams				0	1	2		
Communication TOTAL				0	1	2		1
	0	1	2	3			4	
Quality	Unacceptable	Missing key material	Average	Above Average		e	Outstanding	
Quantity	Unacceptable	Not enough material	Acceptable					
Examples / Diagrams	None	Could use more	Acceptable					
Communication	Unacceptable	Difficult to follow	Acceptable	1				