Below are some sample questions for Midterm 2. As has been announced in class and via a class-wide e-mail, Midterm 2 will ONLY test material from chapters 5, 6, and 7 in the textbook and lecture material since the first midterm. Answers are provided after the questions.

1. Your sister’s black-hand tarantula, named Mortis, keeps escaping from its cage. On the first day, it took Mortis 14 hours to escape by jumping, but by the second week, the black-hand tarantula could only be confined for 30 minutes before it worked its way to freedom. According to Thorndike’s law of effect
   A. the stimulus of the cage has become associated with the desire to be free
   B. the stimulus of the cage has become associated with the jumping necessary to gain freedom.
   C. the black-hand tarantula jumps in order to gain freedom
   D. the black-hand tarantula “operates” on the environment to gain freedom.

2. For 30 ten-minute trials, a rat received a food pellet every other lever press. What kind of schedule was this rat on?
   A. Fixed interval.
   B. Fixed ratio.
   C. Variable interval.
   D. Variable ratio.

3. Modern two-process theory predicts that instrumental responding will decrease if
   A. the central emotional state reflects a negative mood.
   B. the central emotional state was conditioned with an aversive stimulus.
   C. the central emotional state was conditioned with an appetitive stimulus.
   D. the conditioned central emotional state is opposite to the emotions that motivate instrumental behaviour.

4. Pigeons have a baseline gape response of 10-15 mm. In order to shape the gape response for a wider opening, the first reinforcers should be delivered when the pigeon opens its mouth _________.
   A. every time
   B. 10 mm
   C. 15 mm
   D. 16 mm

5. Your roommate is taking a self-paced course that requires three papers over the semester. He expected to finish all three papers in the first two weeks but, after quickly finishing the first paper three weeks ago, he has done nothing. What is this behaviour pattern due to?
   A. The variable ratio schedule of reinforcement.
   B. The variable interval schedule of reinforcement.
   C. The partial reinforcement extinction effect.
   D. The post-reinforcement pause.
6. Sally was pushing the buttons of a video game to earn gold pieces when she heard the bicycle-bell belonging to her cruel older brother, signaling that he was home. According to the modern two-process theory, she will push the buttons
A. more rapidly.
B. less rapidly.
C. at the same rate.
D. more rapidly at first and then less rapidly.

7. What is the major advantage of free-operant methods over discrete trial procedures?
A. The animals learn more quickly.
B. Free operant methods provide the opportunity to observe changes in the likelihood of behaviour over time.
C. Free operant methods can reveal an animal’s preferences.
D. Free-operant methods involve S-S learning, but discrete trial procedures involve S-R learning.

8. You notice that the pigeon in the laboratory you just entered has a particular way of pecking the key in its cage. The pigeon seems to increase its rate of pecking towards the end of a two minute period, when food is made available, and then pecking slows until the end of the next two minute period. What schedule do you surmise the pigeon is on?
A. A fixed ratio schedule.
B. A variable ratio schedule.
C. A fixed interval schedule.
D. A variable interval schedule.

9. What is likely to occur in the testing phase of a transfer experiment?
A. A conditional stimulus that had previously been trained in a compound is presented alone.
B. A conditional stimulus is presented while an organism is engaged in an instrumental behaviour.
C. A conditional response is recorded as an organism makes an instrumental response.
D. An unconditional stimulus is presented while an organism is making a conditional response.

10. What is a positive contingency between a response and an outcome that reduces future responding known as?
A. Positive reinforcement.
B. Negative reinforcement.
C. Positive punishment.
D. Negative punishment.

11. Of the following, what are response rate schedules most likely to occur for?
A. A baker with a cake in the oven.
B. A dancer learning steps to new music.
C. A gambler at a slot machine.
D. A student in a course with pop quizzes.
12. What is the problem with assuming that R-O relationships act alone to produce instrumental behaviour?
A. It is difficult to demonstrate R-O relationships in the laboratory.
B. R-O relationships are theoretical constructs.
C. The R-O relationship does not explain what causes the response in the first place.
D. R-O relationships ignore r_g-s_g mechanisms.

13. Sometimes, removing a stimulus after some response increases the occurrence of that response. What is this an example of?
A. Positive reinforcement.
B. Negative reinforcement.
C. Positive punishment.
D. Negative punishment.

14. A silent stalker python pokes key “A” 10 times a minute. The python pokes key “B” 5 times a minute. According to Herrnstein’s matching law, what is the relative rate of responding to key “B”?
A. 3
B. 2
C. 0.5
D. 0.33

15. In order to determine if one response will reinforce another, what would Premack suggest you need to know?
A. The primary drive level of the subject.
B. The incentive drive level of the subject.
C. The species typical response rate.
D. The probabilities of each response.

16. With some difficulty a raccoon was trained to place a single coin in a piggy bank, but when the trainer attempted to train the raccoon to place two coins in the bank, the raccoon rubbed the coins together for minutes on end, and would not drop the coins. What is this an example of?
A. Instinctive drift.
B. Stereotypy.
C. Sensitization.
D. Differential variability.

17. According to molecular maximizing theories of matching, organisms always choose whichever response alternative is most likely to be reinforced at that time.
A. organisms distribute their response so as to maximize the amount of reinforcement they receive over the long run.
B. the local rate of response is calculated over just the time the organisms devotes to that particular response.
D. matching is possible in the absence of momentary maximizing.
18. According to which of the following theories is the instrumental conditioning procedure itself responsible for the creation of the reinforcer?
A. The Premack principle.
B. The drive reduction theory.
C. The response deprivation hypothesis.
D. The differential probability theory.

19. According to behavioural systems theory, what is instinctive drift a product of?
A. Stereotypy.
B. Differential reinforcement of other behaviours.
C. Negative reinforcement components.
D. The components of the system activated by the conditioning procedure.

20. According to melioration theories of matching,
A. organisms always choose whichever response alternative is most likely to be reinforced at that time.
B. organisms focus on aggregates of responses between two keys over a time period.
C. the local rate of response is calculated over just the time the organism devotes to that particular behaviour.
D. organisms distribute their responses so as to maximize the amount of reinforcement they receive over the long run.

21. A screeching banshee monkey spends equal amounts of time lurking in branches waiting to pounce and drinking. In a graph of this behaviour, time spent lurking is represented on the X axis. The Y axis represents the time spent drinking. When lurking is restricted by an instrumental constraint, the slope of the line representing the new instrumental contingency
A. is steeper than the slope of the line through the bliss point.
B. is less steep than the slope of the line through the bliss point.
C. is the same as the slope of the line through the bliss point.
D. cannot be determined by the above information.

22. Which of the following is an example of a response-reinforcer relationship with good contingency but weak temporal contiguity?
A. Poking a bear and getting mauled.
B. Putting a sandwich in the microwave to heat.
C. Mailing three cereal box tops to receive a plastic toy.
D. Being burned on a hot stove.

23. What are concurrent-chain schedules of reinforcement are used to measure?
A. Continuous choice behaviour over time.
B. Choice behaviour with commitment.
C. Partial reinforcement extinction effects.
D. Mechanisms of partial reinforcement extinction effects.
24. According to the behavioural bliss point approach, what does imposing an instrumental contingency do?
A. It establishes a new physiological drive state.
B. It activates dedicated brain regions sensitive to reinforcement.
C. It causes increased attention to sensory reinforcement.
D. It disrupts the most comfortable distribution of responses.

25. Jeff always wears red socks on test days because he believes they allow him to earn good grades. What would B.F. Skinner have attributed this behaviour to?
A. A positive response-reinforcer contingency.
B. Adventitious reinforcement.
C. Interim reinforcement.
D. Terminal reinforcement.

26. In studies of self control, researchers have found that pigeons are more likely to choose a small reward over a large reward if
A. there is a long delay for the small reward and a short delay for the large reward.
B. there is a delay only for the small reward.
C. there is a long delay for both the large and small reward.
D. there is no delay for the small reward and a short delay for the large reward.

27. A red gallow's raven would normally eat carrion for 20 minutes of each hour and preen its feathers for 40 minutes. According to the minimum deviation model, if the raven is required on average to preen for 50 minutes in order to eat carrion for 20 minutes, the raven will most likely distribute its behaviour to
A. preen for 50 minutes to gain access to 20 minutes of eating.
B. preen for only 40 minutes for less than 20 minutes of eating.
C. preen for between 40 and 50 minutes for less than 20 minutes of eating.
D. preen for more than 50 minutes to get as much eating as possible.

28. Which of the following is NOT an alternative explanation to the learned helplessness hypothesis?
A. Animals can perceive the contingency between their behaviour and the delivery of a reinforcer.
B. Animals learn to be inactive in response to shock during the exposure phase.
C. Animals pay less attention to their actions due to inescapable shock.
D. Animals perseverate in their responses following inescapable shock.

29. According to the hyperbolic decay function of value discounting, when the delay is 2, what is the value of the reinforcer?
A. 2
B. 2K
C. M/(1+2K)
D. 2M/(1+K)
30. If you wanted to model an increase in the “price” of a product using an instrumental procedure, you could
A. increase the number of lever presses required.
B. increase the size of the reinforcer.
C. increase the sensory reinforcement of the reward.
D. increase the deprivation time.

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