

**Ψ UNSW  
PSYCHSOC  
PSYC1011  
Practice Examination  
2021**

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DATE: \_\_\_\_\_

**1. Which of these fields did not contribute to the birth of cognitive science?**

- a. Computer science
- b. Linguistics
- c. Philosophy
- d. Biology

**2. Which of these is an example of latent learning?**

- a. Rats being able to navigate a maze faster due to the presence of treats at the end.
- b. A parrot listening to its owner speak for weeks then demonstrating a perfect imitation of their voice for a treat.
- c. A puppy learning to bark less due to being reprimanded by their owner each time.
- d. A pet being able to perform a trick at home but being unable to replicate it in a competition environment.

**3. Which of the following best describes cognitive psychology in relation to the movements preceding it?**

- a. Cognitive processes such as attention, memory and perception were not recognised until after the Cognitive Revolution.
- b. The decades leading up to the Cognitive Revolution were dominated by the field of Introspection.
- c. Cognitive psychology can be seen as a modified continuation of behaviorism with a greater emphasis on how the mind processes information.
- d. Cognitive psychology replaced all Behaviorist research traditions.

**4. Which of the following is NOT true regarding attention?**

- a. Eye-tracking studies are often used to measure overt attention rather than covert attention.
- b. Overt attention involves paying attention without moving your eyes, whereas covert attention involves moving your eyes.
- c. Studies suggest people displaying overt attention are equally as likely to miss an object as those displaying covert attention.
- d. Inattention blindness can occur even when overt attention is being demonstrated.

**5. Inattention blindness occurs primarily as a result of \_\_\_\_\_**

- a. A failure to update representations between views in our memory.
- b. The mind tuning our attention to prioritise certain visual cues over others.
- c. The mind's inability to process visual information when attention is preoccupied.
- d. Working memory being encoded inaccurately when turned into long-term memory.

**6. When looking for his friend in a crowded room, David remembers he was wearing a green scarf, so he begins to scan the room only looking for the colour green. Which type of attention is David primarily utilising?**

- a. Feature-based attention
- b. Spatial attention
- c. Overt attention
- d. Primitive attention

7. **What are all of the components of external attention?**
- Modality, location, features & objects, time
  - Long-term memory, working memory, selecting responses
  - Modality, time, selecting responses, location
  - Features & objects, location, time
8. **The Stroop Effect (1935) demonstrates how we struggle to use our attention to give the appropriate response when we're presented a complex stimulus. What process(es) does this show?**
- Controlled processes
  - Feature-based attention
  - Controlled and automatic processes
  - Automatic processes
9. **Alice is having lunch with her friend and they are talking about a new song that was just released. Her friend plays the song for her. According to Alan Baddeley's Model of Working Memory, which buffer is Alice using at this moment?**
- Visuospatial sketchpad
  - Central executive
  - Episodic buffer
  - Phonological loop
10. **Eric has a crush on Patricia and he thinks that no one knows about it yet. Suddenly, one of his friends comes up to him and says that they know who he's crushing on. Eric panics and doesn't remember if he told his friend about it. What is Eric struggling with?**
- External source monitoring
  - Internal source monitoring
  - Flashbulb Memories
  - Anterograde Amnesia

11. **Chris' boss is giving him some instructions for his upcoming project. After he receives his instructions, Chris stops for a second and realises that he only remembers the first instruction, so he turns back to his boss and asks him to repeat the instructions. What does this show?**
- Recency effect
  - Primacy effect
  - Serial position effect
  - Echoic memory
12. **Through her research on false memories, Elizabeth Loftus suggested that our memory is suggestible, malleable and flawed. Which of these is NOT an example of this concept?**
- A victim identifying the wrong perpetrator in a simultaneous line-up.
  - A student constantly thinking that they lost their laptop charger makes them think that they actually lost it.
  - A bus driver remembering many routes between different suburbs.
  - A tourist remembering the day they went to Luna Park slightly differently in comparison to the video that they recorded on the day.

- 13. Roediger & Karpicke (2006) investigated whether retrieval practice or studying in preparation for a test improved students' performance. What were their findings?**
- a. Retrieval practice along with studying helped students remember a greater proportion of idea units throughout all retention intervals tested.
  - b. Retrieval practice along with studying led to a slight decrease in the proportion of idea units throughout all retention intervals tested.
  - c. Studying alone only increased the proportion of idea units in the shortest retention interval.
  - d. Studying alone did not increase the proportion of idea units that students could recall throughout all retention intervals tested.

- 14. Which of the following statements is NOT an example of implicit memory?**
- a. Peter remembers the day at the zoo when he was 8 years old.
  - b. Leanne knows how to use the microwave to heat food.
  - c. Jessica dislikes Vietnamese food because she vomited after her grandma cooked it for her
  - d. Before completing the cloze passage, Anna was given a set of words that she could use to complete it.

- 15. Matthew is listening to a song and its calming instrumentals take him back to when he used it to help him fall asleep. Even though this made him feel calm, he is reminded of the stress that he went through when completing his last assignment. What is Matthew exhibiting?**
- a. Flashbulb memory & retrieval cue
  - b. Spreading activation & retrieval cue
  - c. Flashbulb memory & context dependent memory
  - d. Spreading activation & mood dependent memory

- 16. Which of these processes in non-associative learning is more frequently stimulus specific?**
- a. Habituation
  - b. Sensitisation
  - c. Habituation and sensitisation are both highly stimulus specific
  - d. Habituation and sensitisation are never stimulus specific

- 17. Holt et al. (2005) studied hippocampus activity in response to a fearful face in two groups of adults. The results showed a sustained activation of the hippocampus in response to a fearful face in the Schizophrenia population, but not in the control group (adults not diagnosed with Schizophrenia). This can be explained by:**
- a. Sensitisation occurring in the control group, but not in the Schizophrenia group.
  - b. Sensitisation occurring in the Schizophrenia group, but not in the control group.
  - c. Habituation occurring in the control group, but not in the Schizophrenia group.
  - d. Habituation occurring in the Schizophrenia group, but not in the control group.

- 18. Which of these can be explained by sensitisation?**
- a. Males being less aroused by a female they have had sex with in the past.
  - b. A person becomes more dependent on a drug the more doses they take.
  - c. A mother tuning out the sound of her crying baby.
  - d. Aplysia snail demonstrating no siphon withdrawal response when their tail is shocked.

**19. The smell of vanilla naturally makes Shaily happy. Grace learns of this and begins wearing a vanilla scented perfume. Even though Shaily didn't like Grace before, she now smiles whenever she sees her. In this classical conditioning example, which element is the conditioned stimulus (CS)?**

- a. The scent of vanilla
- b. Shaily smiling when smelling vanilla
- c. Grace's presence
- d. Shaily's positive feelings towards Grace

**20. In stage 1 of an experiment, dogs learn the association that a circle predicts food. In stage 2, they learn that a circle predicts food but an oval does not. In stage 3, the circle and oval start to become closer in similarity to each other. After a final stage where the two stimuli look nearly the same, what will be the likely result of the experiment?**

- a. The dogs will salivate at both circle and oval stimuli.
- b. The dogs become better at discriminating between the stimuli at each phase.
- c. The dogs become subdued from their confusion.
- d. Experimental neuroses will be induced in the dogs.

**21. Applying knowledge of Mineka's experiment on vicarious learning in monkeys and their fear responses to snakes, which of the following is NOT true?**

- a. Some associations can be made easier than others.
- b. We can learn associations between two stimuli even if we don't experience them ourselves, such as through watching a recording.
- c. After conditioning, monkeys in the two groups displayed the same level of disturbance behaviours (indications of fear) to both snakes and flowers.
- d. Before conditioning, lab-born monkeys demonstrated less fear of snakes than wild-born monkeys.

**22. In a conditioned taste aversion experiment, which concept explains why rats who have been exposed to a taste for 10 days before it is paired with an illness show less aversion to the taste than rats who receive the taste and illness together only once?**

- a. Latent inhibition
- b. Vicarious learning
- c. Trace conditioning
- d. Contiguity

**23. Which is true regarding the role of contingency in associative learning?**

- a. Contingency refers to the way a CS and US must occur at similar times for an association to be learnt.
- b. Contingency is always more important than contiguity.
- c. The stronger the contingency, the better the learning.
- d. Knockout mice learn associations from ambiguous contingency rates in the same way as normal mice.

**24. According to Pavlov's stimulus substitution model, before an association is learnt, what does the response center do?**

- a. Respond to various cues in the environment that might be a CS.
- b. Notice a biologically relevant stimulus (US).
- c. Mediate an unconditioned response.
- d. Form neural pathways in the brain.

**25. Riley goes to the casino every day for 2 hours to try to win money from the slot machines. Within the past month that she has gone, she has not won any money. What is influencing her behaviour?**

- a. Autoshaping
- b. Continuous reinforcement schedule
- c. Variable ratio schedule
- d. Contiguity

**26. Anthony has been living in a nursing home for 5 years and is only allowed to have 2 cigarettes a day. One day, his nurse was absent and he found some cigarettes in the cupboard. This allowed him to have a few more cigarettes than usual. When the nurse came back the next day, Anthony kept asking for more cigarettes than usual, regardless of the nurse's refusal to his requests. Why was Anthony so persistent?**

- a. Sensory specific satiety caused outcome devaluation.
- b. Undertraining caused his responses to be less sensitive to the outcome value.
- c. Overtraining caused his responses to be less sensitive to the outcome value.
- d. Contiguity and contingency.

**27. Sullivan (2001) investigated olfactory learning in the development of rats, where the rats responded in an unexpected way despite learning the association between odour and shock. Which of the following best describes an example of the experimental results?**

- a. A kitten constantly looking for their emotionally-absent mother.
- b. A young girl running away from a snake in the grass.
- c. A baby boy staying away from white, fluffy objects after learning to fear them.
- d. An infant trying to eat a banana even though they previously didn't like it when they tried it for the first time.

**28. Why are NMDA receptor agonists not ideal to enhance extinction learning?**

- a. They inhibit learning.
- b. They have a shorter lifespan.
- c. All of the above.
- d. None of the above.

**29. Which of the following is a limitation of extinction learning?**

- a. Extinction learning is not explained by the competing memory hypothesis.
- b. Ambiguity of conditioned stimulus.
- c. The neural pathway between the conditioned stimulus and unconditioned stimulus is erased.
- d. All of the above.

**30. A sheep develops a fear of the sound of shears because it was paired with lightning. The sheep was exposed to the sound of shears multiple times until the shears did not elicit a fear response. However, the sheep then saw lightning right afterwards and when the farmer needed to shear the sheep, the sheep ran away. What occurred in this situation?**

- a. Renewal
- b. Reinforcement
- c. Reinstatement
- d. Spontaneous recovery

**31. Which of the following is the correct order of what occurs in a reflex arc?**

- a. Stimulus → sensory receptor → afferent pathway → integrated centre → efferent pathway → effector organs → response
- b. Stimulus → sensory receptor → afferent pathway → efferent pathway → effector organs → response
- c. Stimulus → sensory receptor → efferent pathway → integrated centre → afferent pathway → effector organs → response
- d. Stimulus → afferent pathway → integrated centre → efferent pathway → response

- 32. Which of the following statements is true about motor and sensory neurons?**
- a. Both motor and sensory neurons are multipolar neurons.
  - b. Sensory neurons send efferent signals; motor neurons send afferent signals.
  - c. Sensory neurons are unipolar; motor neurons are multipolar.
  - d. Sensory neurons send afferent signals; motor neurons send efferent signals.

- 33. What is the phospholipid bilayer and where is it located?**
- a. Maintains negative charge in the cell; axon hillock
  - b. Maintains positive charge in the cell; soma
  - c. Maintains negative charge in the cell; soma
  - d. Maintains positive charge in the cell; axon hillock

- 34. The occipital lobe is \_\_\_\_\_ to the frontal lobe.**
- a. Rostral
  - b. Caudal
  - c. Dorsal
  - d. Ventral

- 35. After an accident, Toby finds himself losing his balance more and walking into people by accident. Which part of his brain has most likely been damaged?**
- a. Cerebrum
  - b. Medulla oblongata
  - c. Hippocampus
  - d. Cerebellum

- 36. Which of these functions is NOT controlled by the frontal lobe?**
- a. Memory
  - b. Impulse control
  - c. Ability to empathise

- d. Problem solving
- 37. During synaptic communication, what causes ligand-gated ion channels to open?**
- a. Nerve impulses arriving at the axon
  - b. A neurotransmitter binding to a receptor
  - c. The electric potential of a cell increasing above the threshold
  - d. Reuptake of neurotransmitters in the synaptic cleft

- 38. What is a graded potential involving a decrease in voltage called?**
- a. Axosomatic communication
  - b. Axodendritic communication
  - c. Inhibitory Post Synaptic Potential
  - d. Excitatory Post Synaptic Potential

- 39. Which phase occurs first in the production of action potentials?**
- a. Absolute refractory period
  - b. Hyperpolarisation
  - c. Depolarisation
  - d. Repolarisation

- 40. Which glutamate receptors play an important role in learning and memory?**
- a. AMPA receptors
  - b. NMDA receptors
  - c. GABA<sub>A</sub> receptors
  - d. GABA<sub>B</sub> receptors

- 41. Which neurotransmitter is heavily associated with activation of the sympathetic nervous system?**
- a. Epinephrine/norepinephrine
  - b. Acetylcholine
  - c. Glutamate
  - d. Gamma-aminobutyric acid (GABA)

42. A precursor to which of these monoamine neurotransmitters would be the best treatment for a patient with Parkinson's, a movement-related disorder?
- Epinephrine
  - Serotonin
  - Histamine
  - Dopamine
43. Which of the following is a characteristic of tricyclic antidepressants?
- Increases 5-HT signalling
  - Increases both 5-HT and norepinephrine signalling
  - Is loosely bound to the dual D2 + 5-HT2 antagonist
  - Is tightly bound to the D2 receptor antagonist
44. What type of drug can reduce brain metabolism when abused?
- Opiates
  - Depressant
  - Euphoriant
  - Antipsychotic
45. A drug addict exhibits a tolerance for opioids. They used to consume the drugs through tablets but they want to feel the effects of the drug faster. Which route of drug administration are they most likely going to use?
- Oral
  - Topical
  - Intravenous
  - Inhalation
46. Which hormone acts on an endocrine cell to control hormone secretion?
- Thyrotropin releasing hormone (TRH)
  - Thyroid-stimulating hormone (TSH)
  - Thyroid hormone
  - Thyroid gland
47. Which of the following hormones is not produced by the adrenal gland?
- Adrenocorticotrophic hormone
  - Androgens
  - Glucocorticoids
  - Epinephrine
48. One general principle of hormones is that:
- It affects all cells to alter cell function.
  - Each hormone only has one effect on different cells.
  - It uses neural communication.
  - The levels of most hormones vary throughout the day.
49. Which of the following is the correct definition for transduction?
- The process of converting neural energy into physical energy.
  - The process of converting physical energy into neural energy.
  - The stimulation of receptors with energy.
  - The inability to stimulate receptors with energy.
50. Which of the following is NOT true about the visible light spectrum?
- It contains a property that can preserve the geometric structure of the environment.
  - The information in light always corresponds to the surface properties that it reflects off.
  - Scattered light is what we see.
  - Different sources of light emit different spectral distributions of light.



**51. Which of the following is a characteristic of cones?**

- a. They are not important for colour vision.
- b. There are more cones than there are rods in the retina.
- c. They mainly lie in the fovea.
- d. They are dominated at the periphery.

**52. Neurons in which area of the visual pathway are highly selective for the orientation of the stimulus?**

- a. Primary visual cortex
- b. Retina
- c. LGN
- d. Optic nerve

**53. Dana is not able to describe the orientation of the post box slot in front of her, but she is able to reach out and place her card into the slot. This suggests damage to which visual pathway?**

- a. Dorsal 'what' pathway
- b. Dorsal 'how' or 'where' pathway
- c. Ventral 'how' or 'where' pathway
- d. Ventral 'what' pathway

**54. Which of these is NOT a correctly described process in the visual pathway?**

- a. Light enters through the lens and stimulates the retina.
- b. Output from the retina travels primarily to the LGNs.
- c. The left and right LGN only receive information from the visual field of the hemisphere they are positioned in.
- d. The LGN relays visual information to the V1 region of the occipital cortex.

**55. What did Ganchrow et al.'s (1983) study demonstrate about taste?**

- a. Taste preferences can be learnt.
- b. Taste preferences can be innate.

- c. There are different regions on the tongue sensitive to different tastes.
- d. All regions of the tongue are sensitive to all tastes.

**56. Which of the following is not involved in the transduction of sound?**

- a. Auditory signals cross over to the opposite hemisphere.
- b. The auditory canal amplifies the incoming sound waves.
- c. The stirrup vibrates against the 'oval window' membrane.
- d. Sound receptors inside the cochlea trigger graded potentials in neurons.

**57. Pressure is one of the skin's sensory qualities. Where do signals from the skin travel to let us know that there is pressure on the skin?**

- a. Medulla
- b. Thalamus
- c. Somatosensory cortex
- d. Somatosensory homunculus

**58. Which of the following is one of Gestalt's principles?**

- a. Simplicity
- b. Interposition
- c. Constancy
- d. Depth

**59. The sound of a child squealing can be localised due to:**

- a. its complexity.
- b. inter-aural intensity differences.
- c. inter-aural time differences.
- d. the threshold of hearing.

**60. If Bryan is watching his dog run on the field without moving his eyes, which system of perceiving motion is he using?**

- a. Motion from changes in retinal image over time.
- b. Motion from the combination of the retinal image and signals from the eyes that indicate eye movements.
- c. Both of the above.
- d. None of the above.

**61. Which of these results supports the argument that visual capacities are innate?**

- a. Kittens freeze when being placed on glass
- b. Kittens only saw horizontal stripes and not vertical stripes
- c. Rats demonstrating a freezing response after being exposed to a tone
- d. Monkeys respond with fear when placed on a grid surface

**62. Which of these is a characteristic of bottom-up processing?**

- a. Selecting specific features that meet expectations about the stimulus
- b. Using prior knowledge to interpret sensations
- c. Combining component parts into a more complex form
- d. Stimulus judgement

**63. What term would be used to explain the effect of a neighbouring context reducing perceived contrast?**

- a. Contrast illusion
- b. Surround suppression
- c. Cross-modal concealment
- d. Tilt schema

**64. Which of these characteristics are not considered when determining abnormality?**

- a. Deviation from societal norms
- b. Causes impairment to individual's ability to communicate occupationally
- c. Causes distress to the individual

d. None of the above

**65. Which one of these statements regarding mental disorders is incorrect?**

- a. Abnormal thoughts and behaviours occur in clusters
- b. Emil Kraepelin suggested classifying mental disorders into categories based on empirical observations
- c. The DSM-5 uses a multi-axial approach
- d. Multiple-Personality Disorder is now referred to as Dissociative Identity Disorder

**66. What is the impact of the COMT gene on Velocardio-facial syndrome (VCFS)?**

- a. People containing a COMT gene on chromosome 22 have VCFS
- b. People who are missing a COMT gene on chromosome 21 have VCFS
- c. The COMT gene has no impact on VCFS
- d. People missing a COMT gene on chromosome 22 have VCFS

**67. In Insel et al. (1988) Group 2, Rhesus monkeys had access to food and toys only when Group 1 did. They were then given a benzodiazepine inverse agonist. What were the results obtained for Group 2?**

- a. Group 2 demonstrated learned helplessness
- b. Group 2 demonstrated frustration towards Group 1
- c. Group 2 demonstrated fear
- d. Group 2 demonstrated anger towards the food and toys provided

**68. In Caspi et al.'s (2005) study which patients are more likely to use cannabis?**

- a. Adults a Val/Val COMT genotype and with schizophrenia
- b. Adults with a Met/Met COMT genotype with depression
- c. Adults with a Val/Met COMT genotype with depression
- d. Adults with a Met/Met COMT genotype with schizophrenia

**69. Sam thought to himself "If I can't answer one of the questions, the presentation will be a total failure." What type of distortion is this?**

- a. Emotional Reasoning
- b. Personalisation
- c. Black-and-white thinking
- d. Vividness

**70. Which treatment for mental illness is risky but usually effective?**

- a. Trepanning
- b. Lobotomy
- c. Deep brain stimulation
- d. Pharmacotherapy

**71. Daniel has a fear of butter. His therapist directly gives him a block of butter to touch and eat. What type of exposure technique is this?**

- a. Graded exposure
- b. Flooding
- c. Top-down exposure
- d. Exodusing

**72. Which of the following is a cognitive technique of combating mental illness?**

- a. Olivia takes medication that reduces her fear of driving
- b. Olivia goes on a drive to reduce her fear of driving
- c. Olivia questions her fear of driving to reduce it

- d. Olivia remembers her fear of driving to reduce it

**73. Iris believes that she will be poisoned when she drinks tap water, therefore always microwaves it before drinking. Identify the compulsion in this situation.**

- a. Drinking tap water
- b. Drinking microwaved water
- c. Believing that she will be poisoned from tap water
- d. Microwaving tap water to make it sanitary

**74. Which of the following is a positive symptom of schizophrenia?**

- a. Bastila is always angry and decides to shout at her family
- b. Bastila is never hungry
- c. Bastila is unable to make any decisions
- d. Bastila has no motivation to work

**75. Herman believes that someone is making him think that there is no reason to keep living. What symptom of schizophrenia is this characteristic of?**

- a. Auditory hallucinations
- b. Delusions of control
- c. Delusions of reference
- d. Delusions of thought insertion

**76. Which symptom is characteristic of only Bipolar I disorder, but not Bipolar II disorder?**

- a. Occurrence of depressive episodes
- b. Occurrence of manic episodes
- c. Periods of high mood oscillating with low mood
- d. Disorder persists for two or more years

**77. What factor increases the likelihood of developing a depressive disorder?**

- a. Genetic inheritance
- b. Being male
- c. High socioeconomic status

d. Acetylcholine dysregulation

**78. Dominic cannot derive pleasure from any of his favourite activities, and lacks motivation to study. He often contemplates suicide and feels like no one loves him. This occurs for three years and he has been taking daily medication. What disorder is this most characteristic of?**

- a. Major depressive disorder
- b. Bipolar II Disorder
- c. Double Depression
- d. Dysthymia

## Solutions

### *Memory and Cognition (15)*

1. D: Cognitive science is recognised as a multidisciplinary field involving the convergence of: psychology, philosophy, linguistics, anthropology, neuroscience and computer science.
2. B: Latent learning is learning that is not demonstrated until later and can occur without reinforcement. In this example, the parrot's ability to imitate a voice is not shown behaviourally until sufficient motivation is provided.
3. C: Lectures define cognitive psychology as focussing on how the mind processes information. Work on cognition existed even during the reign of Behaviorism (eg. Piaget on cognitive development in children). Behaviourist traditions are still recognised today, therefore it has not been replaced by cognitive psychology.
4. B: Covert attention involves paying attention without moving your eyes, whereas overt attention involves moving your eyes (and can therefore be studied using eye-tracking). Inattention blindness can occur even with overt attention because attention also involves the mind, not just eyes.
5. C: A failure to update representations between views is what causes *change* blindness, whereas inattention blindness is due to the mind's inability to process visual information when attention is preoccupied.
6. A: Feature-based attention involves tuning our attention to prioritise certain features; in this case, the colour green.
7. A: Stated in lecture.
8. C: When we look at the stimulus for the Stroop Effect, we start to read the words in the image (automatic process). However, we need to force ourselves to attend to the colours of the words (controlled process) to ensure that we are giving the correct response. Hence, The Stroop Effect shows how controlled and automatic processes work together.

9. D: The phonological loop encodes auditory information like music.
10. B: Eric is struggling with internal source monitoring, which refers to the ability to distinguish between internal sources (e.g. what I thought vs. what I said). In this case, Eric is not sure if he told his friend about his crush or not, and if his friend knew about it without Eric telling him about it.
11. B: The primacy effect refers to how the first/earliest shared information is more easily recalled than later information.
12. C: Option C is an example of how neuroplasticity can occur from life experiences, hence showing how memory can be improved over time. The other 3 options are either examples of memories being suggestible or malleable in a way that inhibits the individual.
13. C: Stated in lecture, particularly in the graph given.
14. A: Option A is an example of explicit memory, which is linked to a specific time and place. The other options are examples of implicit memory - procedural learning, conditioning and priming respectively.
15. D: Matthew feeling relaxed from the song demonstrates mood dependent memory. Spreading activation is evident when the memory of not being able to sleep reminds him of the assignment that he was stressing about.

### *Animal Learning (15)*

16. A: Habituation is stimulus-specific whereas sensitisation is not highly stimulus-specific (eg. in siphon withdrawal response example mentioned in the lecture)
17. C: Holt et al. 'responses to faces' study is used as an example in habituation lectures, where neural response to a fearful face habituates in adults not diagnosed with any psychopathology conditions (control group), whereas sustained activation of the hippocampus occurs in those with schizophrenia (habituation did not occur).

18. B: Sensitisation involves an increase in the initial response after repeated exposure to the stimulus. In this case, the brain finds the drug more rewarding with more exposure.
19. C: The conditioned stimulus is a neutral stimulus that did not initially elicit the unconditioned response (smiling and happiness), but does after being paired with the unconditioned stimulus (perfume).
20. D: From Pavlov's experiment where experimental neurosis was induced in dogs, mentioned in lecture.
21. C: Monkeys who watched a recording of a monkey acting fearfully to a snake and calmly to a flower (SN+/FL-) were much more afraid of the snake than monkeys in the other group, who watched a video of a monkey acting fearfully to a flower and calmly to a snake (FL+/CS-). This demonstrates that some associations can be made easier than others.
22. A: Latent inhibition is a reduction in learning caused by pre-exposure to the CS. For rats in the second group, the taste is always paired with the illness, whereas for rats in the first group, it is only paired with illness on one of the eleven days, so they will show less aversion.
23. C: A CS and US occurring around a similar time is contiguity. Contingency and contiguity are equally important, and knockout mice are worse at learning associations from ambiguous contingency rates.
24. C: Stated in lecture.
25. C: A variable ratio schedule ensures that the animal is always responding at the same rate as it doesn't know when the outcome is going to occur. This is evident in people with gambling addictions, such as Riley. In this case, Riley's consistent response is playing on the slot machines every day and the outcome that she is waiting for is winning money from the slot machines.
26. C: Ostlund & Balleine's (2009) examined 2 groups of rats (undertrained and overtrained) on their responses to food, the undertrained group pressed the devalued lever less frequently and the overtrained group pressed both levers about the same number

of times as those in undertrained. This shows that for the overtrained group, the response occurs despite how good or bad the outcome is. In Anthony's case, there was an outcome devaluation for cigarettes. However, since he was 'trained' to consume small amounts of alcohol and cigarettes for a long period of time, his behaviour when the nurse came back reflects the response from the overtrained group in the experiment.

27. A: In the mentioned study, the baby rats exhibited a good memory of a bad event after learning the association between the odour and shock (from 5 trials). Hence, they approached the arm with the odour more frequently. A is the most correct example of this as options B and C show young children avoiding an undesirable outcome. D shows an infant approaching the stimulus, however, since it has only eaten the banana once, it may not have properly learnt the association between eating the banana (response) and a bad taste (outcome).
28. B: NMDA receptor agonists work to the point of burn out, so it reaches a point where it no longer works and doesn't enhance learning.
29. B: The limitation of extinction learning was found in Dunsmoor et al.'s (2015) study, where there is an ambiguity of the conditioned stimulus during extinction learning.
30. C: Reinstatement is one of the 3 Rs of extinction and it refers to the recovery of responding when a subject is tested after a non-signalled US presentation. After extinction, only the unconditioned stimulus is presented. This is followed by the presentation of only the conditioned stimulus, which elicits a fear response out of the sheep.

#### *Psychobiology (18)*

31. A: Displayed in a diagram
32. D: Stated in lecture.
33. C: Stated in lecture.
34. B: Caudal/posterior refers to the back of the brain.

35. D: The cerebellum is essential for fine motor control, including movement and balance.
36. A: Memory is controlled by the temporal lobe (by the hippocampus).
37. B: Stated in lecture.
38. C: Decrease in voltage = IPSP, Increase in voltage = EPSP
39. C: Action potentials occur in three phases of depolarisation, repolarisation and then hyperpolarisation (in this order).
40. B: Stated in lecture.
41. A: Stated in lecture.
42. D: Dopamine is involved in reward and movement. Parkinson's can be treated with L-DOPA, a precursor to dopamine which is then converted in the brain.
43. B: Tricyclic antidepressants: Inhibited reuptake of 5HT (serotonin) and NE (norepinephrine) lead to more 5HT and NE signalling
44. C: Stated in lecture.
45. C: Intravenous is a route of drug administration that allows rapid absorption into the bloodstream.
46. B: In the Hypothalamic-Pituitary-Thyroid (HPT) axis, the hypothalamus releases thyrotropin releasing hormone (TRH) into the anterior pituitary. This causes the release of the thyroid-stimulating hormone, which acts on the thyroid gland (i.e. tells it to release thyroid hormone).
47. A: The cortex of the adrenal gland only produces steroid hormones such glucocorticoids, mineralocorticoids and some androgens (sex steroids). The medulla of the adrenal gland only produces amine hormones such as epinephrine and norepinephrine.
48. D: The general principles of hormones are: they only affect cells that possess receptor protein that recognises the hormone to alter cell function, the levels of most hormones vary throughout the day, and each hormone has multiple effects on different cells and behaviours.
49. B: Transduction refers to the process of converting physical energy into neural energy
50. B: The information in light does not always correspond to the surface properties that it reflects off due to illumination. The light that we see is the product of illumination and surface reflectance.
51. C: Stated in lecture, particularly in the diagram of 'number of receptors per square millimetre' against 'angle'.
52. A: V1 neural firing is strongly affected by the orientation of the stimulus. V1 is also known as the primary visual cortex.
53. D: similar to patient DF, can't make decisions about 'what', but can make precise effective moments.
54. C: the left LGN receives information about the right visual field (opposite) and vice-versa.
55. B: Stated in lecture.
56. D: Sound receptors inside the cochlea trigger action potentials instead of graded potentials in neurons.
57. C: Mechanoreceptors transduce pressure from particular regions of skin. These go to their receptive fields, where signals then connect with spinal interneurons for rapid reflex actions and travel to the somatosensory cortex via the medulla and the thalamus. The somatosensory homunculus is the representation of the sensitivity of body parts.
58. A: Gestalt's 6 principles are figure-ground, similarity, proximity, good continuation, simplicity, closure.
59. B: The head can block high frequencies from lateral sound sources more effectively than low frequencies, which is why intensity differences are mostly useful for localising high frequency sounds.
60. A: The perception system that involves the motion from changes in retinal image over time means that the image of cat moves across retina over time, while Bryan continues looking straight ahead.
61. A: The evidence of visual capacities being innate (ie from 'nature' not 'nurture') is demonstrated by the visual cliff experiment. in which infant children noticed a depth discontinuity between two

different surfaces and were scared to go onto the glass. This was also shown in kittens.

- 62. C: Options A and B are characteristics of top-down processing while Option D is not related to bottom-up or top-down processing
- 63. B: Surround suppression can be defined as both the central regions have the same physical contrast, but surrounding context of the same orientation reduces the perceived contrast

*Abnormal Psychology (15)*

- 64. D: In the lectures; all of these options are necessary to determine abnormality
- 65. C: Previous versions used multi-axial approach (5 Axes) but this has been scrapped in DSM-5
- 66. B: Stated in the lectures; People with Velocardio-facial syndrome (VCFS) are missing the COMT gene on chromosome 21
- 67. C: Stated in the lecture.
- 68. A: Stated in the lecture (on a graph)
- 69. C: Black-and-white thinking is viewing a situation in only two categories (extremes) instead of on a continuum. When Sam is thinking that this presentation will either be a success or a failure, she is viewing it as all or nothing rather than thinking that the mistake is just a small bump in his presentation.
- 70. C: Trepanning and lobotomy are dangerous techniques that are usually ineffective, or cause more damage than repair. Pharmacotherapy is generally safe (when monitored) and effective. Deep brain stimulation is relatively new and has much risk, but is generally effective.
- 71. B: Flooding has occurred as the feared stimulus (butter) is presented in full exposure, without gradation
- 72. C: Questioning one's fears/maladaptive thoughts is a cognitive method of reducing them. A is a physiological treatment, B is a behavioural technique and D is not a technique to reduce fear.
- 73. D: Compulsions are behaviours that address one's obsessions; microwaving water alleviates the fear from the obsession that tap water is poisonous

- 74. A: Positive symptoms are the presence of abnormal behaviour - all other options are negative symptoms
- 75. D: Thought insertion occurs when an individual believes that someone else/an external force is inserting a thought into their head, as is the case for Herman.
- 76. B: Manic episodes are characteristic of Bipolar I disorder, whereas hypomanic episodes are characteristic of Bipolar II disorder
- 77. A: depressive disorders can be inherited through genes
- 78. C: Double depression occurs when an individual experiences major depressive episodes for two or more years (unlike dysthymia, which is experience hypodepressive episodes for two or more years)