1. The transformation of physical energy into neural impulses is known as:

- A. Sensation
- B. Transduction
- C. Percept
- D. Parallel Processing

2. Which of the following statements about perceptual processing is false?

- A. Perception of local and global properties are not independent of each other
- B. In the 'Love poem of Dolphins' engraving, there is a structural and figural interpretation
- C. Local and global structures may not be readily interpretable
- D. Perceptual processing occurs even in the absence of recognition

3. In Sheppard's table illusion, the table appears to change size when rotated. This example provides the most evidence for which characteristic of perception?

- A. Emergent properties
- B. Proximal stimuli
- C. Change blindness
- D. Cognitive impenetrability

4. Which of the following is not an example of why perception is hard?

- A. UNSW Runswift team finds it difficult to work with proximal stimuli
- B. Computer models cannot segment complex, overlapping patterns
- C. Google's Artificial System finds it difficult to process chess pieces and the board
- D. CAPTCHA finds it hard to solve unpredictable scenes

5. In the illusory conjunction with two capital letters separated by coloured geometrical shapes in between, what conclusion can be made?

- A. Separate processing in different visual channels exist
- B. Parallel processes occur at one level
- C. The flanking position creates a binding problem
- D. Attention is equally spread during brief presentations

6. Which area has no photoreceptors?

- A. Fovea
- B. Pupil
- C. Optic disk
- D. Cornea

7. Chromophore is ______. Opsin in cones is ______ and opsin in rods is ______.

- A. the light catching part of the visual pigments of the retina; photopsin; scotopsin
- B. a type of vitamin C molecule; photopsin; scotopsin
- C. the light catching part of the visual pigments of the retina; scotopsin; photopsin
- D. a type of vitamin C molecule; scotopsin; photospin

8. In relation to the dark adaptation process, which of the following is not true when the retina is saturated deep red?

- A. It takes 20-30 minutes in the dark
- B. The opsin and chromophore separate
- C. There is a high concentration of visual pigment
- D. Sensitivity changes from low to high

9. Those with retinitis pigmentosa:

- A. Have a central scotoma
- B. Develop eccentric fixation strategy
- C. Can not process information in the periphery
- D. Have destroyed cones

10. The horizontal and vertical layers of information transmission in the retina is:

- A. Photoreceptors (Horizontal cells) \rightarrow Bipolar cells \rightarrow Ganglion cells (Amacrine cells)
- B. Photoreceptors \rightarrow Ganglion cells (Horizontal cells and Amacrine cells) \rightarrow Bipolar cells
- C. Photoreceptors (Horizontal cells)→ Ganglion cells → Bipolar cells (Amacrine cells)
- D. Photoreceptors \rightarrow Bipolar cells (Horizontal cells and Amacrine cells) \rightarrow Ganglion cells

11. Which of these features DOES NOT belong to photopic vision?

- A. High spatial acuity
- B. Low light sensitivity
- C. 90-100 million rod photoreceptors
- D. Located through the retina and is highest in the fovea

12. Choose the most accurate statement regarding Magno-ganglion cells.

- A. They have smaller cell bodies than Parvo-ganglion cells
- B. They have a slower conduction rate than Parvo-ganglion cells
- C. They represent mostly the central visual field
- D. They prefer transient stimulation (changes over time)

13. An original scene of a parked car is shown. What will be the output if you sample it with neurons with small receptor field sizes?

- A. The fine spatial scale will be shown by the precise location of fine edges
- B. The image will be just a giant blur
- C. The image will have lower spatial frequency
- D. It is impossible to decompose this complex signal into sine-waves

14. Cell A responds well to moving oriented edges and lines of specific orientation, Cell B responds well to oriented edges of specific lengths or oriented edges that are stopped and Cell C responds well to stationary lines of particular orientation and location. What is the correct answer?

- A. A=Simple, B=Complex, C=Hypercomplex
- B. A=Complex, B=Hypercomplex, C=Simple
- C. A=Hypercomplex, B=Simple, C=Complex
- D. A=Complex, B=Simple, C=Hypercomplex

15. In cortical magnification, the amount of cortex devoted to fovea is proportional much more than the amount of cortex devoted to periphery. What does this mean?

- A. There will be a larger peripheral visual field
- B. There will be a larger central visual field
- C. The LGN has 3 layers dedicated to Parvo-ganglion cells
- D. Higher fovea representation creates central crowding where images in the central visual field have much higher resolution

16. What is true of neurons residing in anatomically later regions in the primary visual cortex?

- A. They respond primarily to simple visual features
- B. They only respond to spots of light, oriented edges and moving bars
- C. They respond to more complex and abstract stimulus properties
- D. They have progressively smaller receptive field sizes

17. In relation to visual areas, what is not true?

- A. V1 neurons respond only to real edges
- B. V2 neurons respond well to both real and illusory contours
- C. V5 neurons are critical for perception of visual motion
- D. V4 neurons have complex shape selectivity; colder colours indicate more response from particular cells with various stimuli)

- 18. Patient Boat McBoatman has impaired low-level perception and object recognition. He has a normal visual field, visual acuity, colour vision and other visual features are also unaffected but he cannot copy or recognise basic objects. What type of visual agnosia does he have?
 - A. Apperceptive Agnosia
 - B. Integrative Agnosia
 - C. Prosopagnosia
 - D. Object Agnosia
- 19. Which of these is not a feature of figure-ground segregation?
 - A. Contour Belongingness
 - B. The figure is more noticeable and memorable
 - C. Counter Surroundedness
 - D. The contour separating figure from ground belongs to the figure
- 20. You see two cubes and one of them is presented in front of the other so that it covers a section of one cube. You expect the cubes to be whole but when you turn them around, a huge chunk of the behind cube is missing as if someone took a bite out of the cube. Why did you expect the cubes to be whole?
 - A. This follows the accidental viewpoint and the complexity principle
 - B. This follows the generic viewpoint and the simplicity principle
 - C. The visual system prefers the accidental viewpoint and interpretations
 - D. Expecting the cubes to be whole is a more simpler and unstable way of thinking
- 21. Which of the following statements is not a way in which retinal size can be used as a reliable cue to depth?
 - A. Assume physical size is known
 - B. Assume disparities in retinal size tells us about relative distances
 - C. Assume physical size is constant
 - D. Assume objects smaller in size must be further away
- 22. Which monocular cue requires an inference about the objects and surfaces in an environment before a visual judgement is made?
 - A. Retinal position
 - B. Occlusion
 - C. Motion parallax
 - D. Aerial perspective

23. The horizontal distance between two parallel lines is known as in linear perspective:
A. Covariance
B. Light scattering
C. Convergence
D. Horopter
24. With a change in viewpoint, objects to an observer move distance on the
retina than those
A. Closer; a greater; further away
B. Further away; a greater; closer
C. Closer; less of a; further away
D. None of the options
25. From the tutorial, with the Hermann grid probe, how can lateral inhibition explain why
there were illusory grey spots at the intersections of the grid?
A. Less inhibition
B. High activity
C. Decrease in neuron firing rate
D. Less of the surround is excited by the white lines
26. Which of the following statements about accommodation is incorrect?
A. It is the impression of depth generated from binocular disparity
B. It is used as a cue to depth for close objects
C. It is responsible for the unpleasant sensations people experience when using VR devices
D. There is an increase in thickness of objects that are closer
27. Maurice is playing with his toy, Iggle Piggle. When he closes his left eye, Iggle Piggle is
displaced to the right and when he closes his right eye, Iggle Piggle is displayed to the left.
This occurs even though Iggle Piggle has not moved. This is known as:
A. Zero/uncrossed disparity
B. Zero/crossed disparity
C. Non-zero/crossed disparity
D. Non-zero/uncrossed disparity

has a narrower width of distribution, the optimal depth should be:

28. If the probability of depth for cue A is a wider width of distribution than Cue B which

A. More shifted towards cue A, the more reliable cue

- B. More shifted towards cue B, the less reliable cue
- C. More shifted towards cue A, the less reliable cue
- D. More shifted towards cue B, the more reliable cue

29. Why does ocular accommodation not tell us about far objects?

- A. The thickness of the lens becomes too narrow
- B. The lens cannot fix the effect on the retina
- C. The thickness of the lens becomes too wide
- D. Unpleasant sensations arise before far objects can be distinguished

30. Which of the following statements about high spatial frequency patterns is incorrect?

- A. They do not affect ON-centre cells
- B. The firing rate is at baseline
- C. There are more light and dark pairs per unit of space
- D. There are shorter wavelengths

31. What is motion?

- A. Change in time over position
- B. Change in structure over time
- C. Change in position over time
- D. Change in space over time

32. In a space-time representation plot, by taking a horizontal slice, time becomes the vertical axis (y) and direction becomes the horizontal axis (x). The blob of luminance is stationary and does not move anywhere. What kind of shape will the plot look like?

- A. The starting point will be left to right
- B. The starting point will be straight down the middle
- C. The starting point will be right to left
- D. The starting point will be right to left to up to down

33. In neural motion detection, what is true?

- A. An output neuron is selective to direction of motion
- B. An output neuron is selective to stationary objects like a ladybug
- C. A summation neuron subtracts the output of the available intensity neurons
- D. Intensity neurons will only send signals if there is an object or in the particular visual receptive field

34. What is NOT an effect of adding adaptation to a delay unit?

A. Multiplication operators only produce output if both inputs are active

- B. It allows for adaptation of units to generate new responses
- C. Previous non-responses to stimuli will keep generating non-responses
- D. It makes the delay more complex

35. Choose the correct statement regarding challenges in sensing motion.

- A. Apparent motion is the impression of smooth motion that comes from object presentation in nearby locations in rapid succession
- B. Correspondence problem is the problem faced by the motion detection system of knowing which features corresponds to other features
- C. Aperture problem is an extension of the correspondence problem where the correspondence becomes ambiguous
- D. All 3 challenges in sensing motion cannot be solved and the visual system cannot possibly combine local motion signals across the visual field

36. What does motion not provide useful information about other visual features?

- A. Object geometry
- B. Object material
- C. Relative positioning of objects
- D. Object parallax

37. Select the most correct statement in relation to high-level motion.

- A. Motion cannot reveal geometry not apparent in static images
- B. Motion can disambiguate material structure
- C. Motion cannot break camouflage
- D. Object position with highly conspicuous visual patterns can become more discernible with motion

38. In a characteristic vector field in optic flow demonstration, what can you expect?

- A. Motion becomes more simple when eye movements are considered
- B. Vection illusion involves perceiving motion while you are not stationary
- C. A radiating pattern of motion is a characteristic of optic flow
- D. Focus of expansion is useful for determining speed of motion

39. How does the vestibular system aid perception?

- A. Structures in the inner ear give information about self-motion and orientation
- B. Owls move their head along with their body and cannot keep their head still during motion
- C. The chance of a pilot experiencing spatial orientation over their careers is 50-60%

D. If two sensory cues are battling out to determine motion, hearing will always win over vision

40. Why is vision relied on more rather than hearing in visual-vestibular interactions between velocity and acceleration?

- A. The vestibular system cannot sense changes in self-motion
- B. The vestibular system is unable to signal constant velocity
- C. Demonstrations on trying to balance on a beam when the room is moving with eyes closed is a very simple and easy task to accomplish
- D. The visual system has the ability to perceive external motion of other objects

41. Which of the following is a limitation of radical behaviourism?

- A. Pavlovian conditioning
- B. Testifiable and falsifiable theories
- C. Stimulus-response contingencies
- D. Introspection

42. Which of the following statements regarding the Cognitive Revolution is correct?

- A. Noisy steps in information processing creates greater possibility for error
- B. Precise, empirically testable predictions are generated
- C. We can postulate hidden mechanisms
- D. Replications of internal mental processes are produced

43. Which statement best underpins the computational metaphor?

- A. Anything that runs on the brain can run on a laptop or Wang tiles
- B. Wang tiles, laptops and neural networks have the same types of information processing
- C. A program given to one universal Turing machines can be rewritten using the language of another Turing machine
- D. The brain is not a collection of circuits

44. Which of the Marr's levels of analysis is incorrect?

- A. Implementation- How is this instantiated as a physical entity?
- B. Algorithm- What processing steps does it follow to do so?
- C. Abstract computation- When does cognition solve the problem?
- D. All options are correct

45. In the first condition, you are presented with letters (Pp, PP, PD, Pd) and asked to select which ones have the same letters, regardless of case. In the second condition, there is a SOA

(Stimulus.Onset Asynchrony), known as a delay, between the first and second letter. Would there be a shorter reaction time in the first or second condition and why?

- A. First condition- both letters are presented and encoded by the brain together
- B. Second condition- the first letter is already encoded, then the second letter is presented and encoded
- C. We cannot compare conditions
- D. Both conditions would have the same reaction time
- 46. Tommy is attending to his son at the playground, taking note of sounds and noises of his son playing and instantly looks towards a specific area of the background when he hears his son shouting his name. What are the three types of attention in this example?
 - A. Focused, external, passive
 - B. Focused, internal, active
 - C. Divided, external, passive
 - D. Divided, internal, active
- 47. You are listening to two sources of words, one going into your right ear, the other into your left ear. You are asked to repeat the words like water, bag, blue, opportunity, blind, eyes, but you stumble and blurt out the wrong word after hearing blind and eyes. Why have you repeated the words wrong?
 - A. When antonyms are presented, your reaction time is increased
 - B. Semantic interference
 - C. Semantic content of attended source does not influence processing
 - D. You process information that is irrelevant to you
- 48. Every signal is processed up to the point where it can separate from the target and then processing stops. What is known as?
 - A. Early selection theory
 - B. Late selection theory
 - C. Attenuation theory
 - D. Semantic interference theory
- 49. What is true of visual/serial/parallel/pop-out search?
 - A. Where's Wally is a good demonstration of a pop-out effect
 - B. In serial search, the more distracting objects we have (set size), the easier it is to find the target
 - C. Set size does impact pop-out effects
 - D. Set size increases difficulty for serial not parallel search

50. In the visual analog of the shadowing task (Rock & Gutman 1981) two coloured shapes (red and blue) are superimposed and you are asked to rate the appeal of the red shape. You are then shown both shapes in isolation and asked if you remember any of the shapes. What is expected to happen?

- A. Shapes in the original red attended colour are remembered
- B. The blue shape will be processed
- C. You will guess almost all of the red shapes
- D. The red shape will not be processed at all

51. 'All bloops can never be blips and Maurice is a bloop. Therefore Maurice can never be a blip.' Which of the following is true?

- A. The conclusion is affirming evidence as the conclusion disagrees with the major premise
- B. The antecedent and consequent are the same in this scenario
- C. The minor premise is "Maurice is a bloop"
- D. The conclusion is affirming evidence as the conclusion agrees with the minor premise

52. 'If Boe Jiden is a motorbike, then he is a vehicle. Boe Jiden is not a vehicle.' This statement is:

- A. Modus ponens- minor premise assets the consequent of the major premise is false
- B. Modus tollens- minor premise assets the antecedent of the major premise is false
- C. Modus ponens-minor premise assets the antecedent of the major premise is false
- D. Modus tollens- minor premise assets the consequent of the major premise is false

53. What strategy did people prefer in Watson's selection task (1968) where if there is 'R' on one side of the card, there is a '2' on the other?

- A. Positive test strategy- Modus ponens with the antecedent (letters) and affirming the consequent (numbers)
- B. Negative test strategy- Modus ponens with the antecedent (letters) and affirming the consequent (numbers)
- C. Negative test strategy- Modus ponens with the antecedent (letters) and modus tollens with the (numbers)
- D.Positive test strategy- Modus ponens with the antecedent (letters) and modus tollens with the (numbers)

54. Tanya was kicked out of her squad for not wearing pink on Wednesday. She was not following a:

- A. Inductive rule
- B. Deontic rule.

- C. Deductive rule
- D. Indicative rule

55. Which of the following conclusions is not supported by Barrouillet's experiments on deductive rules?

- A. Adults are good with arguments about the consequent
- B. Children assume that affirmatory arguments are correct
- C. Deductive arguments differ on how they are processed and the ease of such processing
- D. All of the options are supported

56. Arguments which are deduced and seem plausible with little evidence are known as:

- A. Syllogisms
- B. Premise monotonicity
- C. Circular arguments
- D. Inductive reasoning

57. Which of the following inductive arguments is an example of premise diversity?

- A. Humans have proteins in their DNA. Do you think Bananas have these proteins in their DNA?
- B. Humans and chimpanzees share the same proteins in their DNA. Do you think humans and gorillas share the same proteins in their DNA?
- C. Humans and orangutans share the same proteins in their DNA. Do you think humans and potatoes share the same proteins in their DNA?
- D. Humans and pine trees share the same proteins in their DNA. Do you think humans and willow trees share the same proteins in their DNA as pine trees?

58. Which of the following cannot be an argument from ignorance?

- A. If Hogwarts does not exist, I should have heard proof about its impossibility but I haven't. Therefore Hogwarts does not exist.
- B. We must be real because we cannot prove we are not real.
- C. There is no proof that the Big Bang did not happen. Therefore the Big Bang did happen.
- D. If Mount Throwitback exists, it should be on the world map but it is not. Therefore, Mount Throwitback does not exist.

59. People are more likely to believe 10 dentists advocating for the benefits of Charcoal Toothpaste than 1 dentist alone. This effect is known as:

- A. Constraint satisfaction
- B. Superiority

- C. Circular arguments
- D. Epistemic closure

60. Which of the following statements about circular arguments is incorrect?

- A. When alternative explanations are more plausible, they are more convincing
- B. The strength of circular arguments depends on how strongly you accept the system as an explanation for a larger body of facts
- C. Assumes that X is correct to prove that X is true
- D. All of the options are correct

61. Pikachu wants to learn how to use the move Thunderbolt. His Pokemon trainer trains him through intense levelling up, giving him explicit instructions on how to learn the move and after a while he learns how to use Thunderbolt. What kind of memory does this tap into?

- A. Semantic memory
- B. Declarative memory
- C. Procedural memory
- D. Episodic memory

62. What is true of connecting related concepts?

- A. It is only useful to connect associatively related concepts
- B. It is only useful to connect categorically related concepts
- C. It does not facilitate lexical access
- D. It is more useful to lexically connect a dog with a wolf than a dog with a cat

63. How does activation spread in semantic priming?

- A. Through separate semantic features
- B. Through shared semantic features
- C. Through separate procedural features
- D. Through shared procedural features

64. In free recall and frequency effects from episodic memory, which of these is not true?

- A. Examples include short answers or essay questions on an exam
- B. High frequency words are recalled better than low frequency words
- C. Low frequency words are recalled better than high frequency words
- D. We start with a particular context and try to establish and reproduce words in a recall task

65. In recognition and frequency effects from episodic memory, which of these is true?

- A. High frequency words are harder to recognise that low frequency words
- B. Low frequency words are harder to recognise than high frequency words
- C. If you were given the word aardvark, you would most likely remember this over a word like cat because of how uncommon it is
- D. A & C
- 66. Angelina was asked to remember a list of words while working at Maccas. Josh was also asked to remember a list of words while in a severely inebriated state. 5 days later, Angelina was asked to recall the list of words while on a Maccas shift and Josh was asked to recall the list of words after 1 shot of alcohol. Which contexts represent each person?
 - A. Angelina: Intrinsic & Josh: Extrinsic
 - B. Angelina: Intrinsic & Josh: Intrinsic
 - C. Angelina: Extrinsic & Josh: Extrinsic
 - D: Angelina: Extrinsic & Josh: Intrinsic

67. What is the difference between explicit memory and implicit memory?

- A. Explicit memory requires you to explicitly retrieve a memory
- B. Implicit memory requires the retention of information to be inferred from a behavioural response
- C. Explicit memory requires you to activate the episodic trace to trace the word to the context
- D. All of the above

68. In the synonym-generation task [Craik and Lockhart (1972)], what is false?

- A. This is an example of deep encoding
- B. There is minimal processing involved
- C. This is based on finding semantic feature meaning
- D. Activation of semantic features allows you to consider other concepts

69. How does the SAC model relate to both the synonym-generation task and the colour naming task?

- A. Participants only focused on the physical features of the red colour in the colour naming task
- B. There is a lot information getting connected to the episodic trace for the colour naming task
- C. The synonym task has less pathways to the episodic trace
- D. The colour naming task has many different pathways to the episodic trace

70. Choose the most accurate statement in relation to levels of processing and memory.

- A. The levels of processing effect is only present in implicit memory task
- B. The levels of processing effect has no effect in explicit memory task
- C. In explicit memory you need to access the episodic trace
- D. In implicit memory you need to access the episodic trace

71. A proposition is:

- A. The smallest idea that can be verified as true or false
- B. Able to broken down into smaller propositions
- C. Not comprised of several concepts
- D. Only inclusive of a relation

72. Andrew gives a pair of pants to James. Identify the correct answer in this propositional network.

- A. Andrew is the recipient
- B. James is the agent
- C. 'Gives' is the relation
- D. None of the above

73. What did Carpenter & Just (1975) find in their sentence verification task?

- A. They were interested in 'true' responses only
- B. A proposition that is a direct negation of a particular proposition is easier to judge
- C. There was less processing involved when trying to determine if a square was a triangular shape compared to to trying to determine if a square was not a square
- D. It demonstrated that objects cannot be represented proportionally

74. What did Schank and Abelson (1977) NOT find in their restaurant script schema scenario?

- A. There was good recall for deviations from the script
- B. There was poor recall for typical parts of the script
- C. There were intrusions in the script
- D. There was evidence that these scenes cannot link together all these propositions

75. What is not a feature of maintenance rehearsal?

- A. Information only needs to be held for a short period of time
- B. Miller's magic number is 7 ± 2 chunks
- C. People who process slowly can recycle information more quickly
- D. It is easier to reproduce a list of letters that do not rhyme compared to a list of letters that do rhyme

76. What is not a feature of elaborative rehearsal?

- A. When information needs to be stored for longer
- B. Link incoming information to existing information
- C. Attention is required to link an episodic trace to existing information
- D. Attention is not required to link an episodic trace to existing information

77. What is a feature of working memory?

- A. The articulatory loop is essentially elaborative rehearsal
- B. The visuo-spatial sketchpad is modality free and abstract
- C. The episodic buffer is like a mental notebook
- D. The central executive does not account for the homunculus explanation

78. What did Kosslyn (1975) find in their imagery tasks?

- A. It was easier to imagine a cat with an elephant than it was to imagine a cat with a fly
- B. Focusing on features like a cat's claw is easier when compared with an elephant
- C. Both scenarios have equal responses and processing speed
- D. Participants will imagine a cat complete with every single minor feature and detail on the spot

79. Imagine a unicorn playing the piano. What can you NOT expect based on Pylyshyn's experiments in 1978 and 2002?

- A. It is likely you have a pre-stored image of this
- B. We need representation in both image and proposition
- C. You will need to bring in propositional information about this
- D. You will try to fill in the pictorial gaps based on propositions

80. A duck has webbed feet. In Kosslyn's computational model of imagery which section of the model is this referring to?

- A. Propositional files
- B. Skeletal image
- C. Spatial medium
- D. Highest resolution

Answers and Rationales

- 1. B: Transduction is the second stage of Perceptual Processing and is performed by sensory receptors.
- 2. A: Perception of local and global properties are independent of each other because they can be extracted independently and one can easily switch between different levels.
- 3. D: Cognitive impenetrability is correct as the physical layout of the table does not help us perceive that the tables are the same size. Emergent properties are the parts that when summed, make up a whole, and do not relate to Sheppard's table illusion. Proximal stimuli refers to the neural activity that results from sensory transduction of physical stimuli, which is very general and is not the most correct answer.
- 4. C: Google's Artificial System finds it easier to play chess than perceive. It is the only artificial system that can see as well as humans.
- 5. A: Attention is diffusely spread in the middle area and the processing of separate attributes has not been integrated during the brief presentations which shows that separate processing in different visual channels does exist.
- 6. C: The Optic disk has no photoreceptors or light sensitivity as there is nothing to absorb the light in this part of the retina.
- 7. A: Cchromophore is a Vitamin A molecule and is the light catching part of the visual pigments of the retina. Opsin in cones is known as photopsin and opsin in rods is scotopsin.
- 8. B: After the photopigment is bleached, the opsin and chromophore recombine to regain sensitivity and respond to light.
- 9. C: The other characteristics are to do with macular degeneration.
- 10. D: The Vertical processing layer is photoreceptors → bipolar cells → ganglion cells. The vertical layer has horizontal cells and amacrine cells in the middle processing layer along with the bipolar cells.
- 11. C: Photopic vision primarily contains 4-5 million cone photoreceptors, 90-100 million rod photoreceptors belong to scotopic vision.
- 12. D: Magno-ganglion cells have larger cell bodies, rapid conduction rate and represent the peripheral visual field so D is the only accurate one.
- 13. A: The image will not be just a giant blur, you can still see fine edges of the objects, the scene will have a higher spatial frequency and it is possible to decompose complex signals into sine-waves.
- 14. B: This is the only correct one and the one that is in order; this a tricky one so please refer to your notes.

- 15. B: There is not a larger peripheral visual field, the LGN has 4 layers dedicated to PG cells and higher fovea representation creates peripheral crowding.
- 16. C: Neurons in later regions respond to more than just simple visual features like spots of light, etc. and have progressively larger, not smaller receptive field sizes.
- 17. D: A,B,C are all true, V4 neurons do have complex shape selectivity BUT WARMER, not colder colours indicate more responses from particular cells.
- 18. A: All of these are relevant to apperceptive agnosia, prosopagnosia is face blindness, object agnosia is impaired object recognition and integrative agnosia is impaired element object recognition.
- 19. C: C is made up, A,B,D are all real features of figure-ground segregation.
- 20. B: A is completely wrong, it's the opposite of B, C is also wrong, it's the opposite and D is half correct, while it is more simple, it is not more unstable, it is more stable.
- 21. D: Only when objects are assumed to have the same physical size will the objects smaller in size be further away. It could however be the same object in different sizes at the same distance.
- 22. C: Objects may have parts/chunks removed rather than the objects being behind one another. In this situation occlusion would not occur because the objects are not actually behind each other. Hence a limitation of occlusion is that inferences must be made before a visual judgement.
- 23. C: In linear perspective, convergence is the horizontal distance between two lines.
- 24. A: With a change in viewpoint, objects closer to an observer move a greater distance on the retina than those further away.
- 25. C: Neurons have more inhibition at intersections. There is lower activity/decrease in firing rate at intersections because of lateral inhibition more of the surround is excited by white lines.
- 26. A: The impression of depth generated from binocular disparity is known as stereopsis which is different to accommodation.
- 27. D: This is a non-zero disparity as the two eyes have slightly different views of the environment. When he closes his left eye, Iggle Piggle is displaced to the right in the right eye's image and when he closes his right eye, Iggle Piggle is displayed to the left in the left eye's image. This is known as uncrossed disparity.
- 28. D: Cue B has a narrower width of distribution which indicates that the depth that is most probable given a measurement X, will fall within a narrow range, hence B is the more reliable cue. The optimal depth is always shifted towards the more reliable cue, in this case, B.
- 29. B: Only with close objects can we change the thickness of the lens to change the blur. With far objects it does not have an effect on the retina that the lens can fix. Unpleasant sensations only arise when accommodation and vergence are in tandem.

- 30. A: ON-centre cells are selective for spatial frequency because their firing rate changes as spatial frequency is changed. The other statements about high spatial frequency patterns are all correct.
- 31. C: C is the only correct answer, the others are all made up/untrue.
- 32. B: B is the only correct answer, if the blob of luminance is stationary, the starting point will be straight down the middle, like a square split in two to make 2 rectangles, not a square split into left /right triangles, tricky question so refer to notes.
- 33. D: Output/summation neurons are NOT selective to direction/motion/stationary objects and do not subtract, they take the summation of both outputs from intensity neurons.
- 34. A: While A is true, this concept is not relevant to temporal offset units.
- 35. D: Three explanations of the challenges in sensing motion are all correct, D is incorrect.
- 36. D: Motion provides useful information about object geometry/material/position/relative positioning of objects.
- 37. B: B is the only correct answer, the other three answers are opposites.
- 38. C: Motion becomes more complex with eye movements, vection illusion is perceived while stationary and focus of expansion is useful for determining heading direction.
- 39. A: Owls have the ability to keep their head still during motion (see video in lecture,) chances of pilots experiencing spatial disorientation is 90-100% and when vision and hearing are battling out, vision eventually wins, not hearing.
- 40. B: B is the only correct answer, the vestibular system can sense changes in self motion, trying to balance on a beam with eyes closed is near impossible and while the visual system can perceive motion of other objects, it is not an accurate in the context of the question, and rather has the ability to perceive self motion.
- 41. C: Stimulus-Response contingencies impose strong constraints on behaviourism. For example, you apply behaviourist ideas to complex mental processes such as language production, there will be shortcomings.
- 42. D: Innocent inferences, not replications, about internal mental processes are made. The other statements are all correct.
- 43. B: At a fundamental level what best underpins the computational metaphor is the fact that these are all information processing machines and carry out the same types of information processing. The other statements are correct but not the best answer.
- 44. C: Abstract computation referes to *what* problem cognition solves. It has nothing to do with *when* the problem is solved.
- 45. B: If there was a delay/SOA between first letter and second letter, you can start saving time so you process it faster. Encoding for the first letter is out of the way. SOA starts when the second letter is presented e.g. first letter for 500ms, then second letter, then reaction timer starts.
- 46. A: It is focused, because he is attending to his son, external because he is paying attention to auditory perceptual environment and passive (tricky) only because he heard

- his son calling out his name; it normally would be active but because his son screamed his name, it becomes passive attention.
- 47. B: This is called semantic interference, the other answers are incorrect.
- 48. C: This statement describes attenuation theory only.
- 49. D: Where's Wally is not a pop-out effect, Wally certainly does not pop out and demonstrates visual search, in serial search, higher set size equals increased difficulty, set size makes no difference for pop-out effects.
- 50. A: You were asked to rate red first so you will generally remember the shapes, you will not process the blue shape very well, you won't guess the red shapes since you actually remember them and the red shape is the shape that will be processed.
- 51. C: The conclusion is affirming evidence as the conclusion agrees with the major premise. The antecedent and consequent are different. The minor premise is a specific fact"Maurice is a bloop".
- 52. D: This is a valid argument by denial- the consequent is denied, hence modus tollens.
- 53. A: People preferred the positive test strategy- picking cases that confirms the rule. They selected the antecedent/letters with modus ponens and the number '2' (affirms the consequent) which affirmed the rule.
- 54. B: A deontic rule is 'if this then you should that'- if it is Wednesday, then you should wear pink.
- 55. A: Adults are better with arguments about the antecedent.
- 56. D: Inductive arguments rely on limited evidence to make a (general or specific) conclusion seem more *plausible*.
- 57. C: People are more willing to endorse an inductive argument when the premises are dissimilar.
- 58. A: Arguments from ignorance follow this structure: X must be true just because you can't prove that X is false. If there was no proof of Hogwarts not existing, then we should assume that it does exist, according the the argument from ignorance.
- 59. D: When there are more ratings for the benefit of charcoal toothpaste, that represents high levels of epistemic closure.
- 60. A: When alternative explanations are less plausible, they are more convincing.
- 61. C: This is procedural memory because Pikachus learns and knows 'how' to use Thunderbolt and his trainer gave him explicit instructions on how to perform the task, the other answers are wrong; declarative = what, episodic = past episodes, semantic = facts and knowledge.
- 62. A: A is the only correct answer, you connect associatively not categorically related concepts, like a cat and dog because they commonly occur together - think of household pets, you either think a cat or a dog not a dog or a wolf - and it does facilitate lexical access.

- 63. B: Procedural features answers are made up and semantic priming causes activation through shared semantic features.
- 64. C: C is the false statement here, all other statements/answers are correct of free recall.
- 65. D: It is both A & C because it's harder to recognise high frequency words (like cat or dog) compared to low frequency words (like aardvark or okapi), B is incorrect.
- 66. D: D is only correct, remember that extrinsic is environmental and intrinsic and mood and mental state based.
- 67. D: D is correct, it's all of the above, explicit memory requires being explicitly asked to retrieve a memory, the definition of implicit memory is listed above and explicit memory requires you to literally explicitly trace the word back to the context.
- 68. B: There is actually a lot of processing involved, minimal processing involves the shallow encoding colour naming task.
- 69. A: A is the only correct answer, in the colour naming task, there is minimal information and has less pathways to the episodic trace, and the synonym task has many pathways to the episodic trace because you are trying to generate as many concepts as possible but you only consider the best synonym/concept for the task.
- 70. C: C is only correct answer, the level of processing effect is present in ONLY EXPLICIT memory task not implicit memory, and has NO EFFECT in implicit memory task (not the explicit memory task) and in implicit memory, you don't need to access the episodic trace because it is based on pre-activation of concepts.
- 71. A: A proposition the smallest idea that can be verified as true or false, CANNOT be broken down into smaller propositions, IS comprised of several concepts and includes a relation and an argument.
- 72. C: Andrew is the agent, the relation is 'give/giving' and James is the recipient.
- 73. B: B is the only correct answer, it was easier to negate the proposition that the square was not a square than it was to negate the proposition that the square was triangular, also, they were interested in 'false' responses only, there was more processing involved and that the experiment demonstrated that objects can be represented proportionally.
- 74. D: D is the only incorrect answer, A, B, C are all correct.
- 75. C: C is false, people who speak more quickly or process quickly can recycle information more quickly eg Chinese numbers are shorter > can recycle and process other Chinese words and numbers more quickly, all of other answers are correct.
- 76. D: All other answers are correct, ATTENTION is required.
- 77. D: D is the only correct answer, the central executive is a convenient but unsatisfactory explanation but does not include the homunculus problem, the articulatory loop is essentially MAINTENANCE not Elaborative rehearsal, the visuo-spatial sketchpad is like a mental notebook (not episodic buffer) and the episodic buffer is modality free / abstract.

- 78. B: B is the only correct answer, cats were imagined easier with flies because they are not extremely different in size, there were different processing speed levels and participants will imagine a cat in its full detail but won't imagine all of its details like claws, whiskers, toe beans, UNLESS SPECIFICALLY ASKED.
- 79. A: A is the false answer, you most likely won't have a pre-stored image of this because that would be weird, B, C, D are all correct and are all taken from the final Imagery lecture of Marcus's section in his explanations.
- 80. A: A because all other answers are false, refer to the diagram.