

i Welcome to the exam of Cognitive Psychology (TIG001)!

The exam consists of 50 multiple choice questions. There is only one correct answer per question. Correct answers get a '1' mark, incorrect or non-answers get a '0' mark.

In order to pass the exam, you need to answer 50% of the questions correctly, meaning that you need to answer 25 out of 50 questions correctly.

In order to pass the exam with distinction, you need to answer 70% of the questions correctly, meaning that you need to answer 35 out of 50 questions correctly.

The exam is in English, a Swedish-English/English-Swedish dictionary is allowed to be used during the exam.

Good luck!

1 Which of the following problems is most ill-defined?

Select one alternative:

- ☐ Samantha is having trouble solving a crossword puzzle.
- ☐ Sheila cannot decide whether to go to a movie this evening or study in the library.
- ☐ Sarah is trying to think of a way to impress her boss.
- ☐ Susan is trying to decide which route to take to the soccer game.

Maximum marks: 1

2 Why is unconscious processing sometimes called “irresistible”?

Select one alternative:

- ☐ Our unconscious is inflexible, making it difficult to adjust or overrule routines.
- ☐ There are no limits to what the unconscious can achieve.
- ☐ It is an attractive topic for psychologists to study.
- ☐ Freud coined the phrase, and it is still in use today.

Maximum marks: 1

- 3 Words perceived as relevant to oneself are remembered _____ compared to words in other categories because _____.

Select one alternative:

- ☐ worse; self-referential information is negatively biased, and thus harder to remember, because of one's past
- ☐ better; self-referential information undergoes increased processing in the brain
- ☐ similarly; all memories are reconstructed similarly regardless of their relationship to oneself
- ☐ better; the autobiographical perspective leads to a reminiscence bump

Maximum marks: 1

- 4 One possible difference between a “sleeping brain” and an “awake brain” relates to the neuronal workspace. Which of the following statements most accurately represents this relationship?

Select one alternative:

- ☐ The workspace encourages the combination and integration of conflicting information when you are asleep, but not when you are awake.
- ☐ When you are awake, the neuronal workspace allows areas of the brain to communicate with each other, which plausibly gives rise to consciousness.
- ☐ Changes in brain activity are monitored by the neuronal workspace when you are asleep, but not when you are awake.
- ☐ When you are asleep, the neuronal workspace allows areas of the brain to communicate with each other, which leads to dreaming.

Maximum marks: 1

- 5 On one trial of an experiment, a participant is shown the sequence *GWXT*. On a different trial, the participant is shown the sequence *PAFE*. On the basis of prior research, we should expect that

Select one alternative:

- ☐ the letter sequences will be equally difficult to perceive because both contain regular bigram patterns.
- ☐ participants will correctly perceive more of the letters in *GWXT* because they are likely to confuse *PAFE* with *PACE* or *SAFE*.
- ☐ the letter sequences will be equally difficult to perceive because neither is a word.
- ☐ *PAFE* will be easier to perceive than *GWXT* because detectors for *PA* and *FE* are likely to be well primed.

Maximum marks: 1

- 6 In Trial 18 of a sentence verification task, participants see the sentence "A robin is a bird." In Trial 42 they see "A penguin is a bird." According to the prototype notion, we should expect faster responses to

Select one alternative:

- ☐ "robin" because participants more readily see the resemblance between "robin" and the bird prototype.
- ☐ "robin" because it is a shorter word.
- ☐ "penguin" because of response priming.
- ☐ "penguin" because penguins are unique birds and thus easily identified.

Maximum marks: 1

7 The existence of task-general resources is illustrated by the demonstration that

Select one alternative:

- ☐ interference between two tasks can sometimes be observed even if the two tasks have few elements in common.
- ☐ similar tasks will not interfere with each other.
- ☐ a heavily practiced task is more likely to cause interference with other tasks than a less-practiced task.
- ☐ some brain lesions disrupt all tasks requiring attention.

Maximum marks: 1

8 Which of the following claims about the role of the neuronal workspace is true?

Select one alternative:

- ☐ The workspace is crucial to mental steps that rely on habit.
- ☐ The workspace prevents activity from occurring in multiple areas of the brain, to avoid confusion.
- ☐ The workspace creates conflicts between different areas of the brain, which must then be resolved through unconscious reasoning.
- ☐ The workspace links other active areas of the brain, allowing for the “executive” to make decisions about current processing.

Maximum marks: 1

9 In which of the following situations would we expect the fastest response time?

Select one alternative:

- ☐ The stimulus being presented to the participant is very different from the stimulus used as the warning signal.
- ☐ The stimulus being presented to the participant is identical in form to the stimulus used as the warning signal.
- ☐ The stimulus being presented to the participant is identical in form to the warning signal but is different from the stimulus that the participant expected.
- ☐ The stimulus being presented to the participant is the stimulus that the participant expected.

Maximum marks: 1

10 Facial recognition depends on

Select one alternative:

- ☐ perception of the overall configuration of the face.
- ☐ identification of the shapes of specific features, such as the nose or the eyes.
- ☐ seeing the person from the appropriate distance.
- ☐ recognizing the face's geons.

Maximum marks: 1

- 11** An important difference between categorization via exemplars and categorization via prototypes is that when using exemplars

Select one alternative:

- ☐ categorization depends on a judgment of resemblance.
- ☐ categories are represented in the mind by a single relatively concrete illustration of the category.
- ☐ one categorizes objects by comparing them to a mentally represented standard.
- ☐ the standard used in a particular category can vary from one occasion to the next.

Maximum marks: 1

- 12** Modern psychology turned away from behaviorism in its classic form for many reasons, including the fact that

Select one alternative:

- ☐ humans' behavior can be changed by learning.
- ☐ classical behaviorism failed to consider the mental processes underlying cognition.
- ☐ psychology rejected behaviorism's emphasis on humans' subjective states.
- ☐ humans are more similar to computers than to other species studied in the laboratory.

Maximum marks: 1

- 13** A participant is asked, "In the list of words I showed you earlier, was there a word that rhymed with 'lake'?" The participant is likely to be well prepared for this sort of memory test if they

Select one alternative:

- ☐ paid attention to the sounds of the words when trying to memorize them.
- ☐ relied on perceptual fluency when studying the words.
- ☐ used maintenance rehearsal when trying to memorize the words.
- ☐ paid attention to the appearance of the words when trying to memorize them.

Maximum marks: 1

- 14** Evidence suggests that interference

Select one alternative:

- ☐ probably explains more forgetting than decay does.
- ☐ occurs for all memories.
- ☐ in combination with repression explains virtually all of forgetting.
- ☐ accounts for the forgetting of semantic memories but not autobiographical memories.

Maximum marks: 1

- 15** When compared to the statement “A canary is an animal,” the reaction time for “A bird is an animal” will be

Select one alternative:

- ☐ equal.
- ☐ faster.
- ☐ slower.
- ☐ unknown; there is not enough information to make a decision.

Maximum marks: 1

- 16** An experimenter reads a list of 30 words to a group of participants at the rate of 1 word per second. This is immediately followed by a free recall test. A second group of participants hears the same 30 words presented at the faster rate of 2 words per second. We should expect that the group hearing the slower presentation will show improved memory performance for the

Select one alternative:

- ☐ entire list.
- ☐ words at the list's end, but there will be no improvement for the words earlier in the list.
- ☐ words at the end of the list and diminished performance for the pre-recency portion of the list.
- ☐ pre-recency portion of the list, but there will be no impact on the recency effect.

Maximum marks: 1

- 17** Categorization is influenced by resemblance, but it is also influenced by factors other than resemblance. Which of the following is evidence for the importance of these other factors?

Select one alternative:

- ☐ Many categories have a hierarchical structure.
- ☐ Resemblance is typically determined by relatively superficial perceptual features, but sometimes categorization depends on deeper essential properties of the category.
- ☐ Learning about new categories often happens automatically, even when the learner does not notice that it is happening.
- ☐ Resemblance plays a key role in the use of prototypes but plays no role in the well-documented use of exemplars.

Maximum marks: 1

- 18** All of the following are tips that you should give a friend who you are encouraging to use analogies more often when problem solving, EXCEPT

Select one alternative:

- ☐ search your memory for content related to the deep structure of the problem, not its surface details.
- ☐ focus on the exact phrasing of the problem, as it will often suggest a solution to the problem.
- ☐ attend to the deep structure of the problem.
- ☐ try to see the mapping between problems you already know and the problem that you're trying to solve.

Maximum marks: 1

19 Priming based on specific expectations about the identity of the upcoming stimulus results in

Select one alternative:

- ☐ a faster response time if the expectations are correct but slower response time if the expectations are incorrect.
- ☐ engagement of the same processing streams as stimulus-based priming.
- ☐ a faster response time if the expectations are correct but no effect on response time if the expectations are incorrect.
- ☐ no effect on response time if the expectations are correct but slower response times if the expectations are incorrect.

Maximum marks: 1

20 A participant who has just participated in an experiment involving dichotic listening is LEAST likely to remember

Select one alternative:

- ☐ whether input in the unattended channel was spoken by a male or a female.
- ☐ how loud the signal of the attended channel was.
- ☐ the meaning of the words presented on the unattended channel.
- ☐ whether the unattended channel contained music or speech.

Maximum marks: 1

21 The fact that we are unaware of most of our mental processing is a

Select one alternative:

- ☐ good thing, because we can reliably infer what our mental processes are, so there's no need to monitor them.
- ☐ bad thing, because much more information about our underlying mental processes would make reasoning more efficient.
- ☐ good thing, because awareness of all of our processing would likely send us into information overload
- ☐ bad thing, because most tasks would be completed faster if we were aware of these processes.

Maximum marks: 1

22 Attention seems to be necessary for

Select one alternative:

- ☐ eye movements.
- ☐ change blindness.
- ☐ conscious perception.
- ☐ perceptual priming.

Maximum marks: 1

- 23** Dr. Lexicon wants to examine the extent to which being a bilingual speaker—someone who speaks two languages—affects cognition compared to those who speak only one language (monolingual speakers). Which of the following is a method that Dr. Lexicon, a cognitive psychologist, would be likely to use to study these potential differences?

Select one alternative:

- ☐ Cognitive psychologists only use neuroimaging techniques in their research, so Dr. Lexicon will track differences in brain activity between bilingual and monolingual speakers.
- ☐ He will only study children because it is not possible to meaningfully compare child cognition to adult cognition.
- ☐ He will ask his participants to describe their experiences when reading to determine whether bilingual participants read differently than monolingual participants.
- ☐ He will measure how long it takes for participants to say whether a sentence is true or false in their native languages to determine whether knowing two languages slows cognitive processing.

Maximum marks: 1

- 24** A number of techniques have been developed that allow us to examine the activation and the structures of specific brain areas. These techniques are called

Select one alternative:

- ☐ fMRI.
- ☐ psychometric assessment.
- ☐ chronometric techniques.
- ☐ neuroimaging techniques.

Maximum marks: 1

25 People are influenced by perceptual illusions

Select one alternative:

- ☐ because they are unable to resist automatic and unconscious inferences.
- ☐ when they suffer from blind sight.
- ☐ if they are under the age of 12.
- ☐ the first time they see them, but after the first time they are no longer influenced by them.

Maximum marks: 1

26 The development of computers facilitated research in cognition by

Select one alternative:

- ☐ integrating elements of subjective experiences.
- ☐ providing a way to directly confirm the accuracy of participants' introspection.
- ☐ suggesting hypotheses that framed cognition as stages of information processing.
- ☐ turning against behavioral principles.

Maximum marks: 1

27 The tendency to be rigid in how one thinks about an object's function is called

Select one alternative:

- ☐ functional narrowness.
- ☐ functional fixedness.
- ☐ incubation.
- ☐ mapping.

Maximum marks: 1

- 28** The action pathway corresponds with the _____ system, while the identification pathway corresponds with the _____ system.

Select one alternative:

- ☐ evaluation; distance
- ☐ distance; evaluation
- ☐ what; where
- ☐ where; what

Maximum marks: 1

- 29** In an experiment, participants learned materials in Room A and were tested in Room B. If they were asked to think about Room A just before taking the test, participants

Select one alternative:

- ☐ performed worse on the test because this distracting instruction interfered with memory rehearsal.
- ☐ performed the same as those participants who were not asked to think about Room A.
- ☐ performed as well as they would have had there been no room change.
- ☐ performed worse on the test due to dual-task memory disruption.

Maximum marks: 1

30 When making judgments using the representativeness heuristic, participants

Select one alternative:

- ☐ rely on base rates.
- ☐ seem to assume that all members of the category resemble the prototype for that category.
- ☐ generalize from a sample of evidence if the category is homogeneous but not if the category is heterogeneous.
- ☐ are sensitive to the sample size and draw conclusions more easily from a large sample.

Maximum marks: 1

31 Imagine you are shown the word “dog” and asked one of the following questions about that word. Which question will lead to the best memory performance?

Select one alternative:

- ☐ Does it fit into the following sentence: “The speeding car swung around the corner, music playing, and screeched to a halt when seeing the _____”?
- ☐ Does it contain an “A”?
- ☐ Does it fit into the sentence, “The _____ enjoyed his dinner”?
- ☐ Does it rhyme with “log”?

Maximum marks: 1

- 32** Participants viewed a series of slides depicting an automobile accident. Immediately afterward, half of the participants were asked, "How fast were the cars going when they hit each other?" The other participants were asked, "How fast were the cars going when they smashed into each other?" One week later, all participants were asked more questions about the slides, including whether they had seen any broken glass in the slides. A comparison of the two groups of participants is likely to show that

Select one alternative:

- ☐ participants who were asked the "smashed" question gave higher estimates of speed and were more likely to remember seeing broken glass.
- ☐ the groups gave similar estimates of speed, but the "smashed" group was more likely to remember seeing broken glass.
- ☐ the minor contrast in wording in how the groups were questioned had no effect on participants' memories.
- ☐ participants who were asked the "smashed" question gave higher estimates of speed, but the groups gave similar responses to the "broken glass" question.

Maximum marks: 1

- 33** Research suggests that, if you see a blue giraffe at the zoo, you'll still recognize it as a giraffe, despite the new color. This point reminds us that

Select one alternative:

- ☐ there are only some types of differences between a prototype and a new case that actually matter, and color is not one of them.
- ☐ to decide whether a new, slightly different case is a member of a category, we need to decide which differences from the prototype (or existing exemplars) are likely to matter.
- ☐ surface differences, like color, can be sufficient to exclude a new case from a category.
- ☐ the use of information about cause and effect is necessary when comparing a new case to an existing prototype (or set of exemplars).

Maximum marks: 1

34 Which of the following is NOT consistent with Gestalt principles?

Select one alternative:

- ☐ People tend to interpret forms in the simplest way possible.
- ☐ People tend to assume that an arrangement of objects was created by a human rather than occurring naturally.
- ☐ People tend to interpret objects that are close together as belonging to the same group and more distant objects as belonging to separate groups.
- ☐ People tend to infer that an object is only partly visible because of another object in front of it, rather than because it is incomplete.

Maximum marks: 1

35 “All dogs are animals. Some animals are pets. Therefore, some dogs are pets.” This example is a(n) _____ syllogism that is likely to be endorsed as _____ due to the belief bias.

Select one alternative:

- ☐ valid; true
- ☐ invalid; true
- ☐ invalid; false
- ☐ valid; false

Maximum marks: 1

36 A problem-solving set**Select one alternative:**

- ☐ is crucial for well-defined problems but cannot help with ill-defined problems.
- ☐ is generally an obstacle to problem solving, so one should seek to approach a problem without a set.
- ☐ can lead the problem solver to ignore options that obviously will not lead to the goal.
- ☐ is an obstacle for non-expert problem solvers but not for experts.

Maximum marks: 1

37 Sarah wonders why she can never remember the names of new acquaintances. In search of an answer, she examines and reflects on her feelings about meeting new people. Sarah is engaged in which process?**Select one alternative:**

- ☐ information processing
- ☐ goal retrieval
- ☐ introspection
- ☐ learning history analysis

Maximum marks: 1

38 Which of the following statements is NOT true of executive control?

Select one alternative:

- ☐ It seems to rely on the prefrontal cortex.
- ☐ It inhibits distracting thoughts.
- ☐ It is needed for habitual responding.
- ☐ It is used to keep current goals active.

Maximum marks: 1

39 Imagine you are putting together a puzzle. You have a broad idea of what the finished puzzle will look like, and you're guided by that idea as you work. Your broad idea is acting as a

Select one alternative:

- ☐ top-down influence.
- ☐ distraction.
- ☐ complication.
- ☐ bottom-up influence.

Maximum marks: 1

40 Recognition errors (like *CQRN* mistaking for *CORN*) lead us to what conclusion about feature nets?

Select one alternative:

- ☐ Feature nets are the only possible explanation for object recognition.
- ☐ Feature nets explain accurate performance, but not errors.
- ☐ The normal functioning of feature nets usually allows us to identify stimuli, but can also lead to errors.
- ☐ Feature nets are an imperfect system, and thus unlikely to accurately represent our cognitive processing.

Maximum marks: 1

41 Which of the following statements most accurately describes visual illusions?

Select one alternative:

- ☐ Illusions will not occur if you know how to avoid them.
- ☐ Illusions are mostly beneficial to perception.
- ☐ Cognitive principles that generally help us can cause illusions in some cases.
- ☐ Illusions can occur for shape and size, but not for color or brightness.

Maximum marks: 1

42 Studies of mental rotation indicate that

Select one alternative:

- ☐ imagined rotation in depth is faster than imagined rotation in two dimensions.
- ☐ participants are able to imagine the rotation of a two-dimensional display but are unable to imagine rotation in depth.
- ☐ the greater the degree of rotation required, the more time is needed to imagine the rotation.
- ☐ participants seem able to compare objects in mental imagery without bothering to imagine these objects rotated into alignment.

Maximum marks: 1

43 Many of us overestimate our own popularity. This could be because we surround ourselves with people who like us, rather than with people who do not. Therefore, it is easier for us to think of the names of people who like us than it is to think of the names of our enemies. This overestimation of popularity seems to derive from using

Select one alternative:

- ☐ the effort heuristic.
- ☐ the availability heuristic.
- ☐ the representativeness heuristic.
- ☐ the affect heuristic.

Maximum marks: 1

- 44** A physician has just read an article about a recently developed drug. Which of the following is LEAST important in determining whether the physician will remember the article later?

Select one alternative:

- ☐ The physician quickly saw that the new drug might have multiple uses, so she thought about several circumstances in which she might use it.
- ☐ The physician expected to need the information later and therefore used a maintenance memorization strategy that had helped her memorize material in the past.
- ☐ The physician read the article carefully to determine whether it was persuasive.
- ☐ The physician realized how suggestions within the article could be integrated with other things she already knew.

Maximum marks: 1

- 45** Which of the following would NOT be considered an advantage of parallel processing in the visual system?

Select one alternative:

- ☐ Information is processed only once, making it efficient.
- ☐ It is faster than serial processing.
- ☐ Multiple areas can process the information simultaneously.
- ☐ Different systems can work together to negotiate an accurate interpretation.

Maximum marks: 1

46 As a general rule, the intention to learn

Select one alternative:

- ☐ usually leads to worse learning than incidental learning.
- ☐ has no direct effect on learning.
- ☐ leads all people to adopt the same memory strategies.
- ☐ has a direct effect on learning.

Maximum marks: 1

47 Geraldo, a lawyer, has read about a case (*Jones v. Arizona*) that he thinks will help one of his clients. Geraldo wants to make sure that he remembers to discuss the case with his client, and also wants to remember to bring up the case in his opening statement in court. His best approach is likely to be to

Select one alternative:

- ☐ reread the summary of the case several times.
- ☐ repeat to himself, over and over again, "Don't forget Jones v. Arizona."
- ☐ put the case book containing Jones v. Arizona on his desk with all of the other books and hope he finds it when his client arrives and when he writes his opening statement.
- ☐ build multiple retrieval paths between the new case and the situations in which he wishes to use it.

Maximum marks: 1

- 48** A participant is asked to memorize a series of word pairs, including the pair “heavy–light.” The participant is asked a series of questions: “Was ‘lamp’ one of the words you saw? Was ‘candle’ one of the words? Was ‘spark’ one of the words? Was ‘light’ one of the words?” The participant answers “no” to each of these questions, because

Select one alternative:

- ☐ the learning context led the participant to think in terms of opposites, while the test context led the participant to think in terms of semantic associates.
- ☐ the learning context does not provide adequate support for perceptual encoding.
- ☐ the learning context does relatively little to encourage deep processing.
- ☐ what was memorized was the idea of “light” as a description of weight, not “light” as illumination.

Maximum marks: 1

- 49** Bartlett asked British participants to read stories from Native American folklore, and he later asked them to recall details of the stories. His findings reveal which important idea about memory?

Select one alternative:

- ☐ Apparently forgotten details can often be remembered with appropriate cues.
- ☐ The strength of connections determines how well a story will be remembered.
- ☐ Memory errors are often the result of attempts to understand what one is learning.
- ☐ Memory is remarkably good, even for complex stories.

Maximum marks: 1

50 When selecting a course of action framed in terms of either losing lives or saving lives following an epidemic of a serious disease, people typically choose

Select one alternative:

- ☐ the least risky option.
- ☐ the riskier option for saved lives and the less risky option for lost lives.
- ☐ the riskier option.
- ☐ the riskier option for lost lives and the less risky option for saved lives.

Maximum marks: 1