

PYC3703

(478720) October/November 2013

COGNITION: THINKING, MEMORY AND PROBLEM SOLVING

Duration 2 Hours

70 Marks

EXAMINERS

FIRST

MR AWR FYNN

PROF HC JANEKE

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SECOND

PROF P KRUGER

Closed book examination

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This paper consists of 17 pages including 2 blank pages for rough work plus instructions for completion of a mark reading sheet

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This paper consists of seventy multiple choice questions which must be answered on a mark reading sheet Your mark out of 70 will be converted to a percentage (that is, a mark out of 100) by the computer

Answer all the questions by selecting the correct (or most appropriate) alternative for each question Note that a correction factor will NOT be applied, so you will not be penalised for incorrect answers

After completing your answers, you must hand in the following

- (i) The mark reading sheet
- (ii) The question paper (All the pages must be handed in)

ENSURE THAT YOU HAVE WRITTEN YOUR STUDENT NUMBER AND COURSE CODE ON BOTH THE EXAMINATION BOOK AND THE MARK READING SHEET

[TURN OVER]

QUESTION 1

Select the correct statement about the history of cognition among the options below

- 1 The issue of how humans acquire knowledge was not considered until about 100 years ago
- 2 The birthday of scientific psychology is usually traced to the first studies of John Watson
- 3 *The development of the computer played a significant role in the development of cognitive psychology during the 1950s*
- 4 Behaviourist researchers are particularly famous for the development of influential theories of human problem solving and decision making

QUESTION 2

Only one of the following students makes a statement with which cognitive psychologists are likely to agree. The other three statements are all problematic. Identify the 'correct' statement among the options below

- 1 Jeanette "In everyday cognition, all information is processed at a deep rather than a shallow level. That's why information is only retained in the short-term memory store for brief periods of time"
- 2 Maria "Decision making is the primary component of all cognitive processes"
- 3 Thabo "In mainstream cognitive psychology, researchers think of cognition as a flow of information, and try to understand how information is represented and processed in the brain"
- 4 Alistair "Cognitive psychologists focus only on manifest, observable behaviour when they study mental processes"

QUESTION 3

Aristotle's empiricist approach to the investigation of the mind and reality was based on the belief that one acquires knowledge through - - - - -

- 1 logical analysis
- 2 introspection
- 3 experience and observation
- 4 spiritual insight

QUESTION 4

Santiago and Ayami both work in the same research lab, but they have very different views of how human knowledge is acquired. Santiago argues that human knowledge is determined almost exclusively by our genetic inheritance whereas Ayami is convinced that almost all knowledge is learned from the surrounding environment. Their disagreement is about a major theme of cognitive psychology, namely - - - - -

- 1 structure versus processes
- 2 nature versus nurture
- 3 biological versus behavioural methods
- 4 rationalism versus empiricism

[TURN OVER]

QUESTION 5

During the 1950s, many psychologists were becoming disillusioned with behaviourism, and cognitive psychology began to emerge. A major reason why they were disappointed with behaviourism is because it - - - -

- 1 assumed that only manifest (i.e. observable) psychological processes can be studied scientifically
- 2 paid too much attention to individual differences and not enough to group behaviour
- 3 failed to develop objective methods of measuring behaviour
- 4 did not pay sufficient attention to the neural and emotional factors governing psychological processes such as judgement and decision making

QUESTION 6

The goal of structuralism was to understand the 'content' of the mind by - - - -

- 1 synthesising constituent parts of perceptions
- 2 analysing perceptions into their constituent parts
- 3 observing responses to various stimuli
- 4 evaluating other schools of thought to provide a 'structure' for the new movement

QUESTION 7

William James is an important figure in the history of psychology because he - - - -

- a) made important contributions that helped to guide the transformation of functionalism into pragmatism,
 - b) formulated the law of effect which was an important milestone in the spread of behaviourism in psychology,
 - c) wrote a very influential book called *Principles of Psychology*,
 - d) was the main theorist and developer of the structuralist movement in psychology
- 1 (a) and (b)
 - 2 (c) and (d)
 - 3 (b) and (c)
 - 4 (a) and (c)

QUESTION 8

Among the following statements that accurately describe Howard Gardner's theory of multiple intelligences, there is a false statement. Identify the *false* statement.

- 1 His theory integrates many aspects of intelligence into a single unitary construct
- 2 He defines eight distinct intelligences that are relatively independent of each other
- 3 His theory is a factorial theory, where each of the eight intelligences is a different factor of intelligence
- 4 He views the mind as modular, such that the different intelligences can be distinguished through activities of distinct portions of the brain

[TURN OVER]

QUESTION 9

Lesibo is an apprentice chef at a restaurant, and does some research to learn about the specifics of a new dish he wants to prepare. According to Sternberg's componential theory of intelligence, he is primarily using his - - - -

- 1 metacomponents
- 2 performance components
- 3 knowledge-acquisition components
- 4 creative components

QUESTION 10

One of the most important differences between the multiple intelligences theory of Howard Garner and that of Robert Sternberg is that Sternberg's theory - - - -?

- 1 focuses on three aspects of intelligence – analytic, creative, and practical
- 2 suggests that human intelligence is best conceptualised in terms of a three-stratum model in which 'g' embodies the final stratum
- 3 implies that there is one general intelligence that underlies all cognitive tasks
- 4 does not consider how intelligence relates to experience

QUESTION 11

How would someone determine whether there is a possibility of a problem in the functioning of a patient's medulla oblongata?

- 1 The patient experiences both short-term and long-term memory loss
- 2 The patient is not able to sense pain or pressure
- 3 The patient displays irregular aggression patterns
- 4 The patient experiences heartbeat irregularity and possible breathing problems

QUESTION 12

The optic nerve consists of axons from - - - - cells

- 1 amacrine
- 2 ganglion
- 3 horizontal
- 4 oligodendroglia

QUESTION 13

Which of the following statements best describes the function of the soma (i.e. cell body) of a neuron?

- 1 The soma contains the nucleus of the cell and connects the dendrites to the axon
- 2 The soma is the part of a neuron which receives sensory information and transmits the messages to the brain
- 3 The soma controls the way in which messages are received by the brain from the outlying nerves of the body
- 4 The soma is a small gap in the myelin coating along the axon that increases conduction speed

[TURN OVER]

QUESTION 14

A pharmaceutical company is marketing a new drug that is claimed to control anger and aggression, and which is targeted for patients prone to extreme outbursts of anger and violence. Based on what we know about the functional specialisation of the brain, we can guess that the drug's primary effect will be on the (a) - - - - - and (b) - - - - -, because they are known to play a significant role in anger and aggression.

- 1 (a) basal ganglion (b) hippocampus
- 2 (a) septum (b) amygdala
- 3 (a) thalamus (b) corpus callosum
- 4 (a) primary motor cortex, (b) medulla oblongata

QUESTION 15

Adrian has Alzheimer's disease and has difficulty in remembering important information such as where he lives and what the name of his daughter is. There is evidence from cognitive neuroscience that the memory problems that he experiences is associated with low levels of - - - - -

- 1 dopamine
- 2 serotonin
- 3 glutamine
- 4 acetylcholine

QUESTION 16

Which statement below correctly best describes what Paul Broca found in his observations of aphasic patients?

- 1 There is no localisation of function in the brain
- 2 The left hemisphere is critical to critical to normal speech functions in most people
- 3 The right hemisphere is critical to normal speech functions in most people
- 4 Neither of the two hemispheres are critical to normal speech functions

QUESTION 17

Melanie has a peculiar perceptual deficit. She can sense all parts of her visual field, but the objects she sees do not mean anything to her. This phenomenon is called - - - - -

- 1 visual amnesia
- 2 prosopagnosia
- 3 simultagnosia
- 4 visual-object agnosia

QUESTION 18

The corpus callosum serves to - - - - -

- 1 make certain contralateral transmissions ipsilateral
- 2 regulate the transmission of information along the cerebral cortex
- 3 allow transmission of information between the left and right hemispheres
- 4 transmit information from the left and right hemispheres to the *spinal cord*

QUESTION 19

Optical recognition machines are used by the postal services to 'read' the addresses on letters and to sort them quickly to their correct destinations. Sometimes, these machines cannot read an address, because the writing on the envelope is not sufficiently clear for the machine to match the writing to an example it has stored in memory. Human postal workers are much more successful at reading unclear addresses, most likely because of

- 1 bottom-up processing
- 2 top-down processing
- 3 their in-depth understanding of the principles of perception
- 4 repeated practice at the task

QUESTION 20

A woman was involved in a motor car accident, and the resident neurosurgeon orders an fMRI (Magnetic Resonance Imaging) to investigate for possible brain damage. The fMRI entails that - - - - -

- 1 the blood flow in her cortex will be measured
- 2 the electrical activity in a series of neurons will be measured
- 3 a scanner will record radiation from tissues in the brain
- 4 a small lesion will be created in a damaged part of her brain

QUESTION 21

Sonia lays in a hospital bed unable to wake up. Scans of her brain show damage to the - - - - -, which is important for regulating overall level of consciousness or arousal.

- 1 corpus callosum
- 2 white matter
- 3 reticular activating system
- 4 medulla oblongata

QUESTION 22

If you stand on railway tracks and stare into the distance, it looks as if the tracks converge because of the following monocular distance cue?

- 1 Relative stability
- 2 Linear perspective
- 3 Texture gradient
- 4 Interposition

[TURN OVER]

QUESTION 23

These long thin photoreceptors work well in situations when the light is dim

- 1 Cones
- 2 Crystalline lens
- 3 Rods
- 4 Ganglion cells

QUESTION 24

What is the main theoretical claim in Gibson's theory of direct perception?

- 1 Perception is essentially a top-down process and cognitive abilities such as perceptual judgments and inference mediate our perception of the world
- 2 Perception is best studied in laboratory situations in order to understand aspects such as figure-ground differences and the effect of texture gradient on perceptual judgments
- 3 Perception is largely a constructive process, which depends on template matching
- 4 The real world provides sufficient contextual information for perceptual recognition, and it is therefore not necessary to appeal to high-level intelligent processes to explain human perception

QUESTION 25

What did Hubel and Wiesel discover about animal visual perception in their important study using single cell recording techniques?

- 1 The cells of the visual cortex just respond randomly to spots of light, and do not take specific position or orientation of visual stimuli into account
- 2 Individual neurons in the visual cortex can be mapped to specific positions on the retina, but these cells all have unspecific responses so that each cell respond to a variety of different positions and orientations of the stimuli
- 3 Hypercomplex cells form cell assemblies which resonate when stimulated and therefore function as a memory store which represents the temporal properties of incoming visual information
- 4 Some cells in the *visual cortex* respond preferentially to lines with a particular orientation and position in the visual field, and these cells therefore function as *feature detectors*

QUESTION 26

In a laboratory where you are doing research on perceptual processes, you show subjects a picture of a small bird swimming in a lake. The picture does not contain enough details for correct identification, but almost all the subjects respond immediately "It's a duck". From their responses you conclude that duck is a - - - - for the subjects

- 1 template
- 2 prototype
- 3 geon
- 4 gestalt

[TURN OVER]

QUESTION 27

According to the - - - - theory of object perception, objects are recognized based on the perception of the distinctive arrangement of various geons (a set of three dimensional geometrical elements) that compose each object

- 1 feature-matching
- 2 prototype
- 3 template
- 4 recognition-by-components

QUESTION 28

The law of - - - - is a Gestalt principle asserting the perceptual tendency to perceive visual arrays in ways that most simply organize disparate elements into a stable and coherent form

- 1 parsimony
- 2 Pragnanz
- 3 organization of elements
- 4 coherence

QUESTION 29

What is the "face positivity" effect in older participants?

- 1 They are better able to recognize faces that are not distorted
- 2 They are better able to recognize faces that are of the same race
- 3 They are better able to recognize faces that show a happy emotion
- 4 They are better able to recognize faces that are all of the same age

QUESTION 30

In a - - - - model of perception, there are a set of characteristic features that tend to be typical of most examples of a concept. It is argued by proponents of this model that not all features are necessary for a given example to be considered an instance of the concept

- 1 template
- 2 prototype
- 3 geon
- 4 gestalt

QUESTION 31

Which of the following perceptual examples would the Gestalt psychologists have been most interested in?

- 1 Why a person with one eye can judge distance and see depth
- 2 Why we organise groups based on similarity and proximity
- 3 Why we see the colour blue as an afterimage after seeing the colour yellow
- 4 Why we perceive something smaller as being farther away

[TURN OVER]

QUESTION 32

Squash is a game which is closely related to tennis. A squash player who decides to learn tennis, initially has some difficulty in remembering the rules of tennis. This is because of (a) - - - - which means that (b) - - - -

- 1 (a) retrograde amnesia (b) old and new memories interfere with each other
- 2 (a) backward masking (b) a new task replaces a previous one
- 3 (a) retroactive interference (b) new memories interfere with the recall of old ones
- 4 (a) proactive interference (b) old memories interfere with the recall of new ones

QUESTION 33

According to the predictions of the levels of processing model of memory which of the following processing strategies should result in the best recall?

- 1 Deciding if a word has a particular pattern of consonants and vowels
- 2 Deciding if a word rhymes with another given word
- 3 Deciding if a word has similar meaning to another given word
- 4 All should result in similar recall performance

QUESTION 34

This component of the working memory is important for processing both spatial information and images

- 1 Central executive
- 2 Episodic buffer
- 3 Phonological loop
- 4 Visuospatial sketchpad

QUESTION 35

Louise put a light bulb on a lamp, turned it on, and looked at it directly. Immediately after that, she looked away and she could still "see" the bulb shining brightly. This visual persistence is an example of the type of information held in the - - - - store

- 1 echoic
- 2 visual
- 3 episodic
- 4 iconic

QUESTION 36

Participants in a cognitive psychology experiment are asked to recall material that have been presented verbally to them. Which of the following types of error in their recall would be most indicative of acoustic rather than semantic confusion?

- 1 Some participants confused the two words *bold* and *brave*
- 2 A few participants recalled *table* when the item in the list was actually *desk*
- 3 Many participants recalled the word *hand* instead of the item *hound* that was in the list
- 4 All of the above

[TURN OVER]

QUESTION 37

Which of the following is not an example of a memory recognition test?

- 1 Is the person that you said was a good speaker in the group over there?
- 2 If I show you a list of names, will you be able to tell me who was at the meeting?
- 3 What's an eight-letter word for "work out" that begins with "E"?
- 4 Is this how you spell "parallel" PARALLEL?

QUESTION 38

This model based on neuroscientific results, suggests that episodic and semantic memories are in fact distinct from one another given that they activate different parts of the brain

- 1 Hemispheric Specialisation Model
- 2 Asymmetrical Hemispheric Specialisation (AHS Model)
- 3 Hemispheric Encoding/Retrieval Asymmetry (HERA Model)
- 4 Intrahemispheric Activation Model

QUESTION 39

At a party, Joan was introduced to Steve just as she arrived. Joan then went off to speak with a different group and was introduced to each of them as well. After hearing the new names, Joan could not remember Steve's name. This description illustrates - - - - -

- 1 retroactive interference
- 2 proactive interference
- 3 decay of information
- 4 reconstructive forgetting

QUESTION 40

A typical serial position curve shows that recall of words in a list is best for items (a) - - - - - of the list and poorest for items (b) - - - - -

- 1 (a) at the end (b) in the middle
- 2 (a) at the end (b) the beginning
- 3 (a) the beginning (b) in the middle
- 4 (a) the beginning (b) at the end

QUESTION 41

How do we transfer information from short-term memory to long-term memory? Select the most appropriate answer from the options below

- 1 By deliberately attending to information in order to comprehend it
- 2 By making connections or associations between the new information and what we already know
- 3 By rehearsing the information
- 4 All of the above

[TURN OVER]

QUESTION 42

In a PDP (also called neural network or connectionist) model of memory, information is stored in a (a) - - - - - in the form of various patterns of (b) - - - - - and the information is (c) - - - - - the brain

- 1 (a) schema (b) propositional representations (c) distributed across
- 2 (a) script (b) analogue representations, (c) stored locally in
- 3 (a) network (b) connections (c) distributed across
- 4 (a) propositional format (b) activation (c) stored locally in

QUESTION 43

Which of the following students' statements best describes Alan Baddeley's view of working memory (short-term memory)?

- 1 Sam "Working memory has seven components, each with its own specialised kind of cognitive activity "
- 2 Lois "Working memory consists of short-term working memory and long-term memory - the same kind of division that has been proposed for iconic memory "
- 3 Kyung "Working memory is an activated portion of long term memory, and moves these activated elements into and out of brief, temporary storage "
- 4 Manuel "Current research shows that there really is no critical difference between working memory and long-term memory "

QUESTION 44

After being given directions to get to the opera, Mark can remember only the part where he is to turn left at the park just before reaching the entrance to the opera house This illustrates the - - - - - effect

- 1 primacy
- 2 recency
- 3 finality
- 4 availability

QUESTION 45

Marianne took a German language course seven years ago in high school and has not read or spoken any German since then She believes that the reason why she barely remembers any German is because she has not used it recently This explanation illustrates the - - - - - theory of forgetting

- 1 interference
- 2 decay
- 3 availability
- 4 interactive

QUESTION 46

According to Bahrick, - - - - refers to a very long-term storage of information. The information contained in this store may include, for example, knowledge of a foreign language and of mathematics acquired years or even decades earlier.

- 1 permanent store
- 2 permastore
- 3 longest-term store
- 4 infinite store

QUESTION 47

This model of memory consists of four main elements: central executive, phonological loop, visuospatial sketchpad, and the episodic buffer (plus additional subsidiary slave systems). This model is known as - - - -.

- 1 primary memory and secondary memory
- 2 the three-store model of recall
- 3 the levels-of-processing framework
- 4 working memory

QUESTION 48

Many cognitive psychologists have asserted that the - - - - effect refers to the activation of a node by a prime to which the node is connected in a network, due to the process of spreading activation.

- 1 activating
- 2 priming
- 3 recall
- 4 recognition

QUESTION 49

- - - - memory refers to a memory of an event that is so emotionally powerful that the person remembers the event as vividly as if it were indelibly preserved on film.

- 1 Traumatic
- 2 Photographic
- 3 Flashbulb
- 4 Iconic

[TURN OVER]

QUESTION 50

Which one of the following circumstances is most likely to encourage the successful use of analogies in problem solving?

- 1 Requiring people to use a mental set
- 2 Having people study the source problem very carefully, rather than simply trying to solve it
- 3 Exposing people to several problems that are structurally similar before they see the target problem
- 4 Encouraging people to compare at least two problems that have different structural features

QUESTION 51

In 'real life', as in the Hobbits-and-Orcs problem, to solve a problem we - - - - -

- 1 sometimes find that the best way to move forward is to move backward temporarily
- 2 should only move forward towards the solution of a problem
- 3 should always use algorithms as they guarantee solutions to problems
- 4 need to see problems in a novel way

QUESTION 52

Which one of the following statements regarding insight is INCORRECT?

- 1 According to the views of the early Gestaltist view, insight involves productive rather than reproductive thinking
- 2 According to the Nothing-Special view, insights are simply important products of normal thinking
- 3 According to the Neo-Gestaltist view, when people are given insight problems, they are unable to accurately predict their success at solving the problem
- 4 Selective-encoding insights involve novel perceptions of how new information relates to old information

QUESTION 53

This notion suggests that we do not have infinite sensitivity when evaluating a number of different opinions. Rather when making decisions, "we are rational, but within limits."

- 1 Opportunity costs
- 2 Subjective probability
- 3 Bounded rationality
- 4 Perspective effects

QUESTION 54

Which of the following is the best definition for the term *problem space*?

- 1 the amount of physical space on a sheet of paper that a subject uses in solving a particular problem
- 2 all the possible paths to a solution that can be used to solve the problem
- 3 all the possible solutions to the problem that all the subjects in a given study have produced
- 4 the set of correct solutions to the problem

[TURN OVER]

QUESTION 55

----- refers to a phenomenon whereby repeated experience with a procedure (e.g., problem solving in a particular domain) may lead to enhanced performance, requiring little conscious effort or control

- 1 Procedural fixation
- 2 The foreclosure effect
- 3 Entrenchment
- 4 Automaticity

QUESTION 56

Research on the problem solving abilities of experts show that -----

- (a) expertise is defined in terms of problem-solving speed, rather than problem-solving accuracy
- (b) they have large rich schemas containing a great deal of declarative knowledge related to the domain
- (c) true experts can acquire their expertise without extensive practice because they truly seem to be "born" with their skills

- 1 (a) and (c)
- 2 (b)
- 3 (a)
- 4 (b) and (c)

QUESTION 57

Chase and Simon (1973) found that if expert and novice chess players are briefly shown a display of a chess board with pieces on it, and are asked to recall the positions of the pieces, then -----

- 1 experts always perform better than novices on the recall task
- 2 experts perform worse than novices if the positions of the pieces do not make sense in terms of an actual game
- 3 experts only perform better than novices if the pieces make sense in terms of an actual game
- 4 there is no significant difference in the memory abilities of the expert and novice players

QUESTION 58

Suppose that you are trying to solve a difficult problem on a lab report you are writing. You decide to take a break and go for a quick walk. After returning, the solution suddenly occurs to you. This would be an example of -----

- 1 isomorphic thinking
- 2 incubation
- 3 divergent thinking
- 4 functional fixedness

[TURN OVER]

QUESTION 59

What is the main idea behind the 'subjective utility theory'?

- 1 Utilities for a given action may vary from person to person because it depends on each person's subjective weighting of utility
- 2 In making decisions, people use objective criteria for studying probabilities of outcomes, but subjective criteria for evaluating each outcome
- 3 In making decisions, people seek to minimize their minimum gain
- 4 In making decisions, people seek to minimize their maximum gain

QUESTION 60

If Mary studied cognitive psychology, then she will know about Miller's study of the limits of short-term memory. Mary has never heard of Miller's study. Therefore, Mary did not study cognitive psychology. What kind of reasoning does the example exemplify?

- 1 Analogical reasoning
- 2 Conditional reasoning
- 3 A categorical syllogism
- 4 A linear syllogism

QUESTION 61

Satisficing makes it more difficult for people to make fully rational decisions because, in satisficing we - -
- - -

- 1 do not consider all possible options, but rather consider a few until we find one that is satisfactory
- 2 consider the additional variable of an incentive, or reward, in the decision-making process
- 3 limit the number of options we consider in order to minimize pain
- 4 often become irrational and unable to make a well-reasoned decision

QUESTION 62

A family has three children, all of whom are boys. Everyone predicts that their next child will be a girl. Which heuristic does this demonstrate?

- 1 Representativeness
- 2 Availability
- 3 Anchoring and adjustment
- 4 The confirmation bias

QUESTION 63

Which of the following is *false* regarding deductive and inductive reasoning?

- 1 Deductive reasoning involves reasoning from general principles to specific facts or instances
- 2 Syllogisms involve deductive reasoning
- 3 Inductively based conclusions can be proved, but deductively based conclusions cannot be proved
- 4 Inductively based conclusions can be disproved by even one contrary observation

[TURN OVER]

Questions 64

*If I am in Rome, then I must be in Italy
I am not in Rome
Therefore I am not in Italy*

The pattern of reasoning shown in the example illustrates - - - - -

- 1 modus ponens
- 2 denial of the antecedent
- 3 affirmation of the consequent
- 4 modus tollens

QUESTION 65

What is the main conclusion about general reasoning and problem solving strategies that can be drawn from the fact that many people have difficulty in solving the Wason selection task?

- 1 Very few people will try to find support for an hypothesis
- 2 People deal better with abstract than with concrete problems
- 3 People are better at solving inductive than deductive problems
- 4 Most people attempt to find support for a hypothesis, instead of trying to disprove it

QUESTION 66

- - - - - is a process in which we focus on one attribute of the various options, form a minimum criterion for that attribute, and then exclude all options that do not meet that criterion

- 1 Illusory correlation
- 2 Inductive reasoning
- 3 Modus ponens
- 4 Elimination by aspects

QUESTION 67

You are on your way to the exam hall to write your first exam in cognitive psychology. In front of you, you notice a young lady is carrying a copy of Sternberg's *Cognitive Psychology*. Every now and then she stops walking, opens the book to glance at it, and then carries on walking in the direction of the exam hall. You naturally conclude that just like you, she is going to write the cognitive psychology exam. Your deduction can be explained in terms of Patricia Cheng and Keith Holyoak's notion of (a) - - - - -, because it is a (b) - - - - - rather than strictly a (c) - - - - - deduction.

- 1 (a) pragmatic reasoning schemas, (b) logical, (c) pragmatic
- 2 (a) mental models, (b) pragmatic, (c) logical
- 3 (a) pragmatic reasoning schemas, (b) pragmatic, (c) logical
- 4 (a) mental models, (b) logical, (c) pragmatic

[TURN OVER]

QUESTION 68

Assume you have no spoon and that you use a pencil to stir your coffee. This shows that you do not suffer from - - - - -

- 1 a flexible mental set
- 2 incubation
- 3 functional fixedness
- 4 selective-comparison insights

QUESTION 69

Searle's Chinese Room Argument is intended to show that - - - - -

- 1 computers will never be able to converse in Chinese
- 2 weak artificial intelligence methods may not be adequate for simulating human intelligence
- 3 symbol manipulation may be sufficient for the creation of humanlike intelligence in robots
- 4 symbol processing of the kind performed by computers is not sufficient for language understanding

QUESTION 70

Select the best description of the Turing test from the explanations provided by the students below

- 1 John "The Turing test is used to evaluate computer expertise in specific areas of knowledge. The test is performed to see how well an artificially intelligent program compares with a human expert in solving problems relating to the area of knowledge"
- 2 Thande "The Turing test involves a computer interacting with a Chinese speaker in order to determine whether the computer can translate English sentences correctly into their Chinese equivalents"
- 3 Marianne "The goal of the Turing test is to determine whether a computer can emulate a human so well that any human conversing with the computer would believe that he or she is talking to a human being and not to a computer"
- 4 Joseph "Allan Turing devised the Turing test in order to establish two things, whether a computer can be programmed to (a) produce grammatically correct sentences, and (b) simulate a psychotherapist"

[TOTAL · 70]

ROUGH WORK

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ROUGH WORK

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PART 1 (GENERAL/ALGEMEEN) DEEL 1

STUDY UNIT e.g. PSY100 X
STUDIE-EENHEID by PSY100-X

1

PAPER NUMBER
VRAESTELNOMMER

2

INITIALS AND SURNAME
VOORLETTERS EN VAN

3

DATE OF EXAMINATION
DATUM VAN EKSAMEN

4

EXAMINATION CENTRE (E.G. PRETORIA)
EKSAMENSENTRUM (BY PRETORIA)

5

STUDENT NUMBER
STUDENTENOMMER

6

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UNIQUE PAPER NO
UNIEKE VRAESTEL NR

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Vir gebruik deur eksamenopsiener

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- 1 USE ONLY AN HB PENCIL TO COMPLETE THIS SHEET
- 2 MARK LIKE THIS ➡
- 3 CHECK THAT YOUR INITIALS AND SURNAME HAS BEEN FILLED IN CORRECTLY
- 4 ENTER YOUR STUDENT NUMBER FROM LEFT TO RIGHT
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- 6 CHECK THAT THE UNIQUE NUMBER HAS BEEN FILLED IN CORRECTLY
- 7 CHECK THAT ONLY ONE ANSWER PER QUESTION HAS BEEN MARKED
- 8 DO NOT FOLD

BELANGRIK

- 1 GEBUIK SLEGS 'N HB POTLOOD OM HIERDIE BLAD TE VOLTOOI
- 2 MERK AS VOLG ➡
- 3 KONTROLEER DAT U VOORLETTERS EN VAN REG INGEVUL IS
- 4 VUL U STUDENTENOMMER VAN LINKS NA REGS IN
- 5 KONTROLEER DAT U DIE KORREKTE STUDENTENOMMER VERSTREK MET
- 6 KONTROLEER DAT DIE UNIEKE NOMMER REG INGEVUL IS
- 7 MAAK SEKER DAT NET EEN ALTERNATIEF PER VRAAG GEMERK IS
- 8 MOENIE VOU NIE

PART 2 (ANSWERS/ANTWOORDE) DEEL 2

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Specimen only