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PSYCHOLOGY

Unit 4 Trial Examination
Total writing time: 1 hour 30 minutes

QUESTION AND ANSWER BOOK

Structure of book

<i>Section</i>		<i>Area of study</i>	<i>Number of questions</i>	<i>Number of questions to be answered</i>
A	1.	Memory	15	15
	2.	Learning	15	15
	3.	Research Methods	15	15
B	1.	Memory	6	6
	2.	Learning	6	6
	3.	Research Methods	6	6

Directions to students

Materials

Question and answer book of 27 pages with a detachable Multiple Choice Answer Sheet inside the front cover. You should have at least one pencil and an eraser.

The task

Please ensure that you write your **name** in the space provided on the cover of this book and in the space provided on the Multiple Choice Answer Sheet.

Answer **all** questions.

Section A questions should be answered in pencil on the Multiple Choice Answer Sheet provided.

Section A is worth 45 marks.

Section B questions should be answered in ink or ball point pen in the spaces provided in this book.

Section B is worth 45 marks.

All written responses should be in English.

At the end of the task

Place the Multiple Choice Answer Sheet inside the front cover of this book.

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Phone: 61 + 3 9385 3999 Fax: 61 + 3 9386 6722 E-mail: stav@stav.vic.edu.au Website: <http://www.stav.vic.edu.au>
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NOVEMBER 2002

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PSYCHOLOGY

Unit 4 Trial Examination

MULTIPLE CHOICE ANSWER SHEET

STUDENT NAME:	
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INSTRUCTIONS:**USE PENCIL ONLY**

- Write your name in the space provided above.
- Use a **PENCIL** for **ALL** entries.
- If you make a mistake, **ERASE** it – **DO NOT** cross it out.
- Marks will **NOT** be deducted for incorrect answers.
- **NO MARK** will be given if more than **ONE** answer is completed for any question.
- Mark your answer by placing a **CROSS** through the letter of your choice.

1.	A	B	C	D
2.	A	B	C	D
3.	A	B	C	D
4.	A	B	C	D
5.	A	B	C	D
6.	A	B	C	D
7.	A	B	C	D
8.	A	B	C	D
9.	A	B	C	D
10.	A	B	C	D
11.	A	B	C	D
12.	A	B	C	D
13.	A	B	C	D
14.	A	B	C	D
15.	A	B	C	D

16.	A	B	C	D
17.	A	B	C	D
18.	A	B	C	D
19.	A	B	C	D
20.	A	B	C	D
21.	A	B	C	D
22.	A	B	C	D
23.	A	B	C	D
24.	A	B	C	D
25.	A	B	C	D
26.	A	B	C	D
27.	A	B	C	D
28.	A	B	C	D
29.	A	B	C	D
30.	A	B	C	D

31.	A	B	C	D
32.	A	B	C	D
33.	A	B	C	D
34.	A	B	C	D
35.	A	B	C	D
36.	A	B	C	D
37.	A	B	C	D
38.	A	B	C	D
39.	A	B	C	D
40.	A	B	C	D
41.	A	B	C	D
42.	A	B	C	D
43.	A	B	C	D
44.	A	B	C	D
45.	A	B	C	D

SECTION A – Multiple choice questions**Specific instructions for Section A**

This section consists of 45 questions, each with four possible answers. Only **one** answer for each question is correct. Select the answer you believe is correct and indicate your choice on the multiple choice answer sheet by crossing the corresponding box.

If you wish to change an answer, erase it cleanly and cross your new choice in the appropriate box. **No** mark will be given if more than one answer is completed for any question.

You should attempt **all** questions.

Each question is worth **one** mark. Marks will **not** be deducted for incorrect answers. The questions are arranged in the three areas of study for this unit. When you have completed the answers for one area of study, go straight onto the next area of study.

AREA OF STUDY 1 – Memory**Question 1**

The process of transforming incoming information into a meaningful form is referred to as

- A. retrieval.
- B. storage.
- C. encoding.
- D. organization.

Question 2

The information processing model of memory suggests that

- A. there are three levels of memory - sensory, short term and long term memory.
- B. there are different locations in the brain and central nervous system that process the different forms of information.
- C. the brain acts like a computer. It decides what information is to be processed (remembered) and what information to ignore (forget).
- D. we are programmed to act in certain ways. For example, sensory memory is primed to respond to movement and change.

Question 3

Which of the following determines what information moves from sensory memory to short term memory?

- A. consolidation
- B. ability to form a trace of the information
- C. working memory
- D. selective attention

Question 4

Which of the following is true of Short Term Memory (STM)?

- A. It has limited storage capacity but can retain information for a considerable length of time.
- B. It is seriously affected by any interruption or interference.
- C. Once information is placed in STM it is stored there permanently.
- D. Information in STM is generally encoded semantically.

Question 5

The retrieval failure theory of forgetting suggests that

- A. information cannot be retrieved because it is stored in the wrong location.
- B. a person uses cues to search memory locations.
- C. procedural and declarative information is stored in different locations.
- D. visual cues give better results than auditory cues.

Question 6

Which of the following statements about storage in Long Term Memory (LTM) is true?

- A. Information enters one of two storage areas, according to whether it is personal or objective knowledge.
- B. Information in LTM is organised chronologically, that is, according to when it was learned.
- C. Information in LTM is stored in terms of the physical qualities of the experience.
- D. Information in LTM is believed to be organised in the form of semantic networks.

Question 7

Being able to remember the dates of important historical events is an example of _____ memory while being able to remember what you did two weeks ago is an example of _____ memory

- A. semantic; episodic
- B. declarative; procedural
- C. semantic; procedural
- D. episodic; declarative

Question 8

Consolidation refers to the

- A. time taken for information to enter short term memory.
- B. ability to see relationships between objects or events and thus store information more effectively in long term memory.
- C. physical changes in the brain which accompany the storage of information in long term memory.
- D. process of speeding up storage in long term memory during sleep.

Question 9

Alana and Toby were reminiscing about their years in primary school. Initially, neither was able to remember all the names of their classmates, but after Alana found a photo of their class they were able to identify most of the children.

Alana and Toby's ability to remember all the names using a photo is an example of

- A. cued recall.
- B. free recall.
- C. names being associated with face recognition.
- D. assisted relearning.

Question 10

Matthew was trying to remember the name of the man who argued that meaning was important in forming memories. He could remember that he was British, that his surname started with B and his most famous story was "The War of the Ghosts". This feeling of knowing something is called

- A. eidetic memory.
- B. semantic network testing.
- C. tip-of-tongue phenomenon.
- D. retrieval failure due to lack of cues.

Question 11

A teacher wishing to demonstrate the relative sensitivity of different measures of retention asked her class to memorise a list of one-syllable words. She then divided the class into two groups. Individuals in Group A were asked to write on a blank piece of paper all the words they could remember. Individuals in Group B were given a piece of paper with a long list of one-syllable words and were asked to circle the ones which they remembered seeing before.

It is most likely that

- A. Group A, using the technique of recall, will remember more words than Group B, who are using the technique of recognition.
- B. Group A, using the technique of recognition, will remember more words than Group B, who are using the technique of recall.
- C. Group A, using the technique of recognition, will remember fewer words than Group B, who are using the technique of recall.
- D. Group A, using the technique of recall, will remember fewer words than Group B, who are using the technique of recognition.

Question 12

Researchers have shown that a possible cause for Alzheimer's disease is

- A. hereditary. It is probably a genetic disorder.
- B. loss of or damage to neurons in the hippocampus.
- C. a drop in the amount of acetylcholine available to neurons.
- D. all of the above.

Question 13

Which of the following statements concerning age-related memory decline is correct?

- A. Age-related memory decline affects all types of information equally strongly.
- B. There is a steady decline in episodic memory.
- C. The more recent the information, the better it is remembered.
- D. Elderly people have greater difficulty in remembering procedures and facts.

Question 14

Therese finds that she can recall very little of the time she spent in Grade 4, when she was 8 years old. This "gap" corresponds with the period around the illness and death of her father. Therese's lack of memory of that time is most likely due to

- A. repression – Therese was unconsciously motivated to block the painful memory of events surrounding her father's death.
- B. infantile amnesia – the relative inability to store information due to immaturity of her hippocampus.
- C. cue-dependent forgetting – Therese no longer lives in the same area as before.
- D. decay of memory traces – Therese wanted to stop thinking about her experiences.

Question 15

The method of loci works as a mnemonic device because

- A. it uses visual imagery. Stronger associations are made because the information is paired with visual information.
- B. the locations used usually have a personal significance. The things to be remembered therefore gain emotional significance.
- C. people can imagine moving from one place to another. This means that information can be retrieved in any order that is required.
- D. the act of walking around a location involves procedural memory. Actions are easier to remember than words.

AREA OF STUDY 2 – LEARNING

Questions 16 to 18 refer to the following information.

Karl von Frisch received a Nobel Prize for his work in ethology, in particular his study of bees. He noticed that bee hives have scout bees that go searching for good sources of sugar/honey. These bees then return to the hive and “dance”. Other bees watching the dance can work out the direction and distance away of the food. Forager bees then collect the food for the benefit of all the bees in the hive.

Question 16

When the scout bees “dance” they move in loops. The orientation of the loop indicates the direction other bees should fly. The size of the loops indicates the distance to be traveled. The “dance” is an example of

- A. a learned response.
- B. a fixed action pattern.
- C. a reflex.
- D. a conditioned response.

Question 17

Von Frisch would put sugar solutions in small trays on tables. He would often put some peppermint oil or lavender oil nearby to simulate the perfume of flowers. By doing this he was able to draw the scout bees to other food stations that had the same smell. The smell of lavender oil would become

- A. an unconditioned stimulus.
- B. a conditioned stimulus.
- C. an unconditioned response.
- D. a conditioned response.

Question 18

Most flowers only produce nectar for a short period of time (up to a month). Von Frisch noted that the scout bees would stop visiting places once the nectar flow had dropped even though the plant was still flowering. This behaviour could be an example of

- A. reinforcement.
- B. the need to find new food sources.
- C. extinction.
- D. discrimination.

Question 19

Skinner studied learning in rats and birds using a Skinner box. Which of the following could **NOT** be studied using a Skinner box?

- A. positive reinforcement
- B. negative reinforcement
- C. punishment
- D. vicarious punishment

Question 20

Police when they are training tracker dogs start by walking away from the dog and dropping a handkerchief about 25 metres away. As the training progresses the trails become longer and the dog has to find its way around buildings. This process of making the task more difficult before the dog receives its reward is called

- A. molding of dog habits.
- B. raising the bar.
- C. higher order classical conditioning.
- D. the method of successive approximations.

Question 21

George is watching the football on the television. His daughter Sally (aged 4) keeps on interrupting. George gets so annoyed that he gives Sally a large bowl of ice cream to keep her quiet. The long term result of George's action is likely to be

- A. Sally associating eating with watching television.
- B. Sally increasing her rate of disruptions.
- C. Sally leaving the room and not disrupting her father.
- D. Sally becoming more interested in watching the football.

Question 22

Which of the following is an example of negative reinforcement?

- A. Jason walked to school and passed a house with an Alsatian dog that barked at him and made him scared. He now walks to school on the other side of the road and is no longer scared.
- B. Belinda is supposed to make her bed and keep her room tidy. In return for this she gets \$5 a week. One week her father said she had not done her chores and so refused to give her the \$5.
- C. Georgina believes she is too fat. She has gone on a strict diet. If she limits her food intake and loses a kilogram in a week, she rewards herself by going to the movies.
- D. Fred swears in front of Ric (his father). Ric warns him about swearing. Fred swears again. Ric becomes very angry and yells at Fred.

Question 23

Charles is a research student using a guinea pig in a Skinner Box. He is researching whether or not guinea pigs can develop a learning set. For his experiment, he can use continuous or partial reinforcement. The main advantage of partial reinforcement is

- A. most animals acquire behaviour quicker using partial reinforcement.
- B. the animal receives less food and so it is more motivated. Less food is also more cost effective.
- C. partial reinforcement encourages a broader behaviour repertoire.
- D. behaviour trained by partial reinforcement is more resistant to extinction.

Question 24

Jack is a very keen fisherman. On most Sundays, Jack can be found standing on a pier with a fishing line into Port Phillip Bay. Fishing is an example of a _____ schedule of reinforcement.

- A. fixed ratio
- B. variable ratio
- C. fixed interval
- D. variable interval

Question 25

Harlow used rhesus monkeys to show that they could learn how to learn. He believed that learning how to learn was an example of positive transfer. Positive transfer means that

- A. once an animal has been trained on partial reinforcement they are more adept at learning new tasks.
- B. animals use skill and knowledge gained from other tasks in new novel ways when facing new situations.
- C. mastery of one task may aid mastery of a second task.
- D. solving problems has its own intrinsic reward. Monkeys will solve problems even if food or rewards are not provided.

Question 26

Justin is a student teacher. Mr Thompson, his supervisor, is explaining that you need to punish some students for some forms of bad behaviour. Which piece of advice is in conflict with the principles of learning theory?

- A. Apply punishment quickly. The punishment should occur just after the undesirable behaviour.
- B. Explain to the student why the behaviour is undesirable and why they are being punished.
- C. Make the punishment severe so that other students will not be tempted to copy the behaviour.
- D. Be aware that punishment often generates negative emotional responses (fear, anger or resentment).

Question 27

Bandura believed that observational learning could help people with phobias. In 1969, Bandura did a series of experiments where people who had a snake phobia either saw a videotape or watched a live model handling a snake. In both cases, the phobia lessened and people became more comfortable. Live modeling was more successful than the videotape. Which aspect of Bandura's work is most important in explaining this success?

- A. A live model is harder to ignore than a person on video. The phobic has to pay attention to the behaviour of the model.
- B. The model's behaviour is easy to remember. The model is largely stationary. One hand is always near the head so that the model can direct the head away from the body and legs.
- C. The model shows no fear and there are no negative consequences (for example, being bitten). This means that the model's coping behaviours are being reinforced.
- D. The phobic is expected to copy the behaviour of the model. Actually touching a snake will reduce a person's fear.

Question 28

Kohler performed many experiments with chimpanzees trying to demonstrate insight learning. In one experiment, bananas were placed outside a chimpanzee's cage. Kohler expected that the chimpanzee would use a broom handle inside the cage to pull the bananas close enough to the cage to be eaten. Instead the chimp walked around the cage with its arms in the air and its eyes upwards looking for inspiration. The chimp solved the problem by breaking a limb off a dead tree put inside the cage to encourage climbing. Kohler still classed this as an example of insight learning because

- A. the chimpanzee had done some preparation. The chimp had worked out the nature of the problem.
- B. there was incubation. The chimp had shown that it was exploring possibilities.
- C. there was an "ah-ha" experience where the chimp solved the problem.
- D. there was a solution. Using the broom handle would have been the quickest and easiest solution. Damaging the climbing tree has real negative consequences for the chimp.

Question 29

Which schedule of reinforcement results in behaviour with the greatest degree of resistance to extinction?

- A. fixed ratio
- B. variable ratio
- C. fixed interval
- D. variable interval

Question 30

John, Paul, George and Ringo all work for Shale Oil. They are being transferred to Thailand. None of them have been to Thailand before. John took an internal course called “Thailand - a cultural orientation.” Paul decided to prepare himself by taking a course “How to do business in Thailand - some model behaviours.” George took both courses. Ringo was too busy and took no courses.

Based on the work of Harrison (1992), the person who will be best prepared for his transfer is

- A. George.
- B. John.
- C. Paul.
- D. Ringo.

AREA OF STUDY 3 – Research Methods**Question 31**

The usual reason why an experimenter uses deception in research is that

- A. the experiment will cause some distress and the experimenter does not want the participant to withdraw.
- B. the participant is a university or school student studying Psychology and is therefore not naïve.
- C. the research is testing morals or values that could be embarrassing or upsetting (for example, abortion).
- D. if participants have too much information they will change their way of behaving and influence the results.

Question 32

Researchers try to use random samples in their studies because

- A. you want a broad range of responses from participants.
- B. it enables you to eliminate any special characteristics that the participants may possess.
- C. it helps you eliminate any experimenter effects.
- D. most inferential statistics are based on the assumption that the samples are randomly selected.

Question 33

The use of placebos make it is easier to

- A. control the participants expectations.
- B. eliminate extraneous variables.
- C. identify the effect of the independent variable.
- D. observe changes in the dependent variable.

Questions 34 and 35 refer to the following information.

A recent British study has claimed that men get grumpier as they get older. Women on the other hand stay calm but become more forgetful.

Question 34

If a researcher was to try and replicate these findings in Australia, he would need to ensure that the sample

- A. had an even number of men and women.
- B. was randomly chosen.
- C. was stratified by age and gender.
- D. was representative in terms of grumpiness and forgetfulness.

Question 35

The population that the researcher would be trying to describe would be

- A. all Australians.
- B. all men.
- C. all members of the human race.
- D. elderly men and women.

Question 36

A probability value of $p < 0.05$ is usually chosen as indicating statistical significance because

- A. it is very small.
- B. such a result is unlikely to be caused by chance alone.
- C. it proves that the experiment has worked. The treatment was successful.
- D. it is safe to generalise to other samples and the whole population.

Question 37

In 1985, Clive Wearing suffered a brain infection that damaged various parts of his cortex. His hippocampus was virtually destroyed. Wearing has a severe form of anterograde amnesia. Psychologists like to use experiments rather than clinical studies like this because

- A. it is probably not ethical to identify a person and their problem. Prior to 1985, Wearing was a well known choir master and musician.
- B. it is only one case. A link between brain damage and amnesia should be done using a survey with a larger number of participants.
- C. it is difficult to identify and control extraneous variables.
- D. there is no control group and so you cannot measure a difference.

Question 38

Which of the following is true?

Double blind procedures

- A. allow you to measure the effects of the independent and dependent variables.
- B. control both experimenter and placebo effects.
- C. control extraneous variables and therefore show the strongest experimental effect.
- D. always use random allocation of participants to the different experimental groups.

Question 39

An educational researcher found a correlation of 0.7 between academic success (school marks) and reading ability. 0.7 indicates

- A. a strong positive correlation.
- B. a weak positive correlation.
- C. no correlation
- D. an inverse correlation.

Question 40

Sally was a participant in a class experiment on the Muller Lyer illusion. She knew that there was supposed to be an illusion and so she overestimated her answers to combat the illusion. This is an example of a/an

- A. experimenter effect.
- B. experimental effect.
- C. placebo effect.
- D. confounding effect.

Question 41

Bandura performed a number of experiments using young children (age 3 years to 6 years old) and BoBo dolls. The dependent variable in these studies was

- A. the number of aggressive acts of the models.
- B. the consequences of the action - reward, punishment or no consequence.
- C. the number of aggressive acts of the children.
- D. the accurate reproduction of the model's behaviour.

Question 42

Sloan (1975) and his researchers wanted to test the effectiveness of different forms of psychotherapy. Ninety people who all had a similar personality disorder were put in three groups using a matched participants design. The first group received counselling, the second group were given behaviour therapy and the third group were put on a waiting list. After four months, eighty percent of the people in groups one and two had recovered. By comparison, forty eight percent of the people in the third group had recovered. The control group in this study is the group

- A. receiving counselling.
- B. receiving behaviour therapy.
- C. on the waiting list.
- D. there is no control group.

Questions 43 to 45 refer to the following information.

Jessica was having trouble with her VCE. She asked her father to pay for a tutor. He said he wanted some evidence to show that tutoring worked before he would pay the fees. Jessica went to school and asked her friends if they had a tutor and did they think a tutor helped. She also asked them what they had scored on the mid-year examination. She used a scale to convert letters to numbers. So an A+ became a 10, an A became a 9, B+ an 8 and so on. Her results are shown in table 1.

Table 1. Mean scores for a Psychology exam amongst Jessica's friends.

Mean score on Psychology exam for students who have a tutor in any subject. (n = 8)	Mean score on Psychology exam for students who do not have a tutor. (n = 12)
5.6	6.2

Question 43

The design used in this investigation is

- A. independent groups.
- B. repeated measures.
- C. matched participants.
- D. a correlational study.

Question 44

This investigation would not be considered ethical for a psychologist to conduct because

- A. participants can easily fake their results. If students had performed poorly they would lie about their results.
- B. Jessica has not told them why she is conducting the study. She needs evidence to get a tutor.
- C. Jessica is using what should be confidential information.
- D. the investigation is flawed from the start and despite other ethical problems it will not yield valid data.

Question 45

Jessica's father decided that he would not pay for a tutor because the average score for the tutored group was lower than the group that did not have a tutor. Jessica's mother argued that the results could be interpreted another way. Which of the following is the most likely explanation of the results?

- A.** the samples are entirely different. Academically able students may not need a tutor and could still get better results than students with tutors who may be weaker.
- B.** there are more students in the group without tutors. Experiments should have equal numbers of participants in each group to properly assess the results.
- C.** students were only asked if they had tutors. Many tutors were probably employed for subjects other than Psychology. If so the Psychology score will not be influenced by tutoring in another subject.
- D.** the difference is not statistically significant. Tutors make a big difference in results but this experiment has not shown a proper result.

END OF SECTION A

SECTION B – Short answer section

AREA OF STUDY 1 – Memory

Question 1

Distinguish between **maintenance rehearsal** and **elaborative rehearsal**.

2 marks

Question 2

Marianne, a psychology student, has just learned that the capacity of STM may be increased by chunking the information to be memorised. Marianne wants to demonstrate the “power of chunking” to her younger sister.

i. What is chunking?

1 mark

ii. Briefly outline a procedure that Marianne may use to demonstrate the effectiveness of chunking to her sister and state what would be observed at each stage.

Step 1

Step 2

2 marks

Question 3

Describe and explain the **serial position effect**.

2 marks

Question 4

Jason is a student teacher. On his first morning at his new school he meets Grade 6A, one of the classes he is to teach. After the class, he spends time learning the students names until he feels confident that he knows them. He then meets the students of Grade 5C and again spends time learning all their names.

The next day, when he starts to teach Grade 5C, he finds himself confusing the names of the students with those of students in Grade 6A.

- i. What is the name of the phenomenon which Jason is experiencing?

1 mark

- ii. Explain Jason's difficulty in remembering the names of the students in Grade 5C.

2 marks

Question 5

What are two characteristics of **retrograde amnesia**?

Characteristic 1

Characteristic 2

2 marks

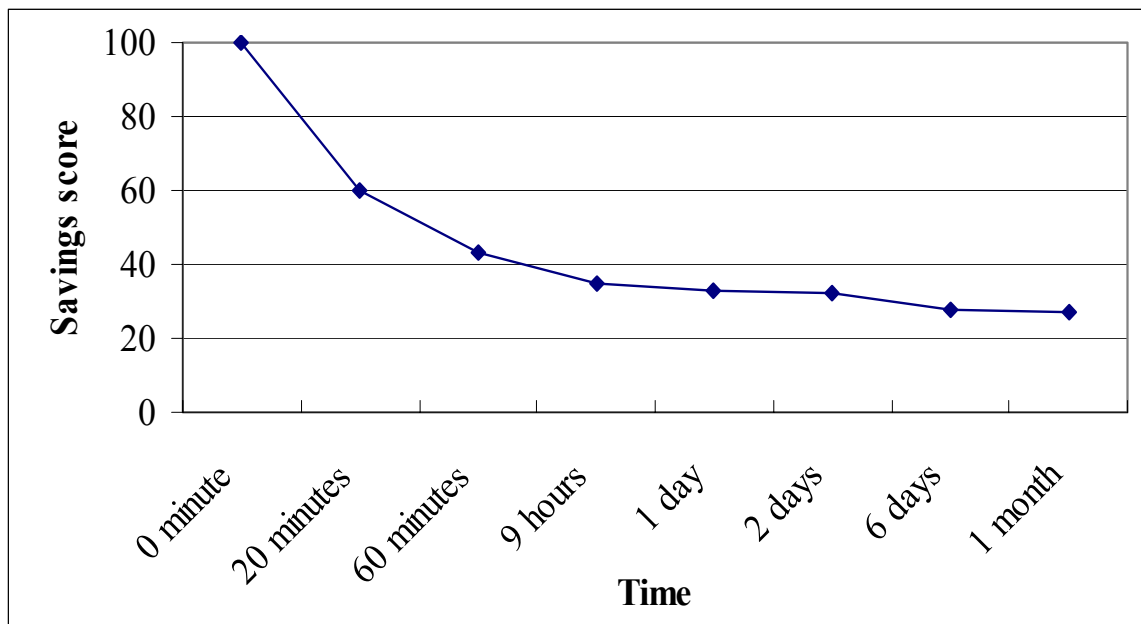
Question 6

Figure 1. Graph of Ebbinghaus's results.

i. What is the name given to graphs like Figure 1?

ii. The y axis measures retention using a savings score. What is a savings score?

iii. Ebbinghaus used nonsense syllables so that he could control meaning. A class ERA used three letter words. Draw on Figure 1 what you would expect the graph to look like for more meaningful material.

3 marks

AREA OF STUDY 2 – LEARNING**Question 7**

One trial learning (for example, taste aversions) is often viewed as a special sort of Pavlovian conditioning. Identify two ways that one trial learning is different from Pavlovian conditioning.

2 marks

Question 8

Watson and Raynor trained an 11 month old boy “Little Albert” to fear a white laboratory rat. This fear was generalized to other objects.

i. In classical conditioning, what is stimulus generalization?

ii. Why did Albert develop of a fear of white cotton balls?

iii. This study is often cited because by today’s standards it is unethical. Identify one ethical problem with the Watson study?

3 marks

Question 9

How is the role of the learner and the nature of the response different for classical and operant conditioning?

i. Role of the learner

ii. Nature of the response

2 marks

Question 10

Aversion therapy is used to discourage undesirable learned behaviour. How could classical conditioning be used to treat alcoholism?

3 marks

Question 11

i. What is a learning set?

ii. How does a learning set influence future learning?

2 marks

Question 12

Table 2 is part of a set of instructions for nurses working in a psychiatric hospital with schizophrenic patients using a token economy.

Table 2. A schedule for reinforced behaviours in a psychiatric hospital.

Behaviour	Reinforcer	Schedule	Comments
Smiling	1 token	Every time patient communicates with a nurse.	Should be accompanied with greeting. For example, "Hello."
Talking to other patients	1 token	Each time detected.	Check that patient is talking "to" not talking "at" the other person.
Sitting	1 token	Each time detected.	Patient must be with others. Check that there is some interaction.
Grooming of hair	1 token	Each time detected.	Patients should not receive more than two tokens a day for proper grooming.

What are the three key aspects of a token economy?

1. _____

2. _____

3. _____

3 marks

AREA OF STUDY 3 – Research Methods**Question 13**

Identify two ways **inferential statistics** differ from **descriptive statistics**.

2 marks

Question 14

A teacher wants to test the resistance to forgetting of material using recognition, recall and relearning. She creates three lists of 20 words. She used her Psychology class at school on consecutive days. On the first day they learned the first list and then were tested 30 minutes later using recognition. On the second day, they learned the second list and then were tested 30 minutes later using recall. On the final day, they learned the third list and were tested 30 minutes later using relearning.

- i. What is the name of this experimental design? _____
- ii. What are the advantages of using the same participants for each method of remembering?

- iii. What is the disadvantage of using this sort of design?

3 marks

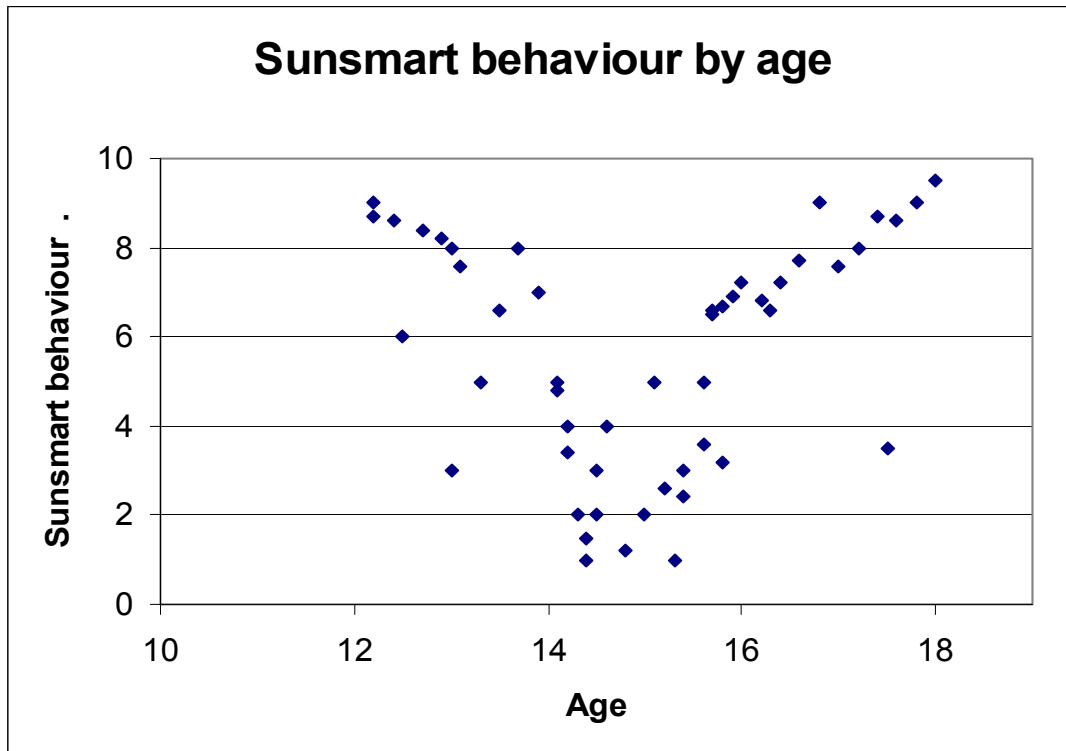
Question 15

Explain what is meant by the terms **independent variable** and **dependent variable**.

2 marks

Question 16

A teacher observes students behaviour during lunchtime and sport. She rates them on the frequency of sun smart behaviour. Sun smart behaviour includes using sunscreen, wearing a hat, playing in the shade and wearing clothing that covers the limbs. Her scale goes from 0 to 10. A high score indicates good sun smart behaviour.



- i. This scatter diagram shows a correlation of $+0.1$. What sort of relationship between age and sun smart behaviour is indicated by a correlation of $+0.1$?

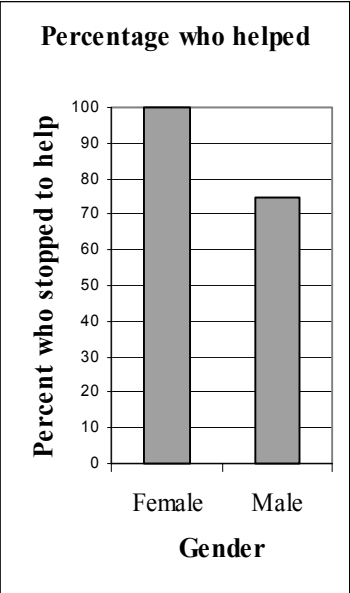
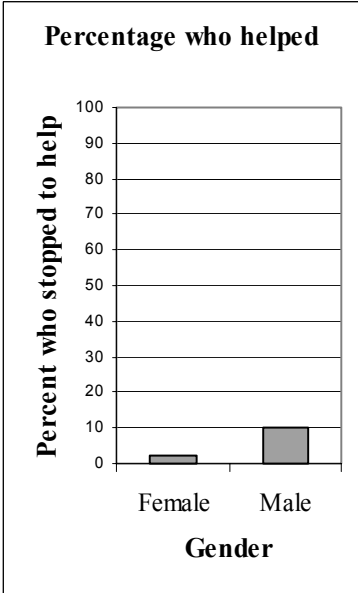
- ii. Does the scatter diagram suggest that there is a relationship between age and sun smart behaviour? What is the relationship?

- iii. Identify one weakness of using correlation coefficients as indicators of relationships between variables.

3 marks

Questions 17 & 18 refer to the following information.

Isen & Levin (1972) set up the following naturalistic experiment near the canteen of a university.

Method	
Experimental Group	Control Group
Step 1. Stooge uses public phone and leaves 50c in the coin slot and walks off.	Step 1. Stooge uses public phone and walks off.
Step 2. Naïve participant uses the phone and then starts to leave.	Step 2. Naïve participant uses the phone and then starts to leave.
Step 3. Another female stooge walks past and drops a manilla folder filled with papers.	Step 3. Another female stooge walks past and drops a manilla folder filled with papers.
Step 4. Does the participant help the stooge pick up her papers?	Step 4. Does the participant help the stooge pick up her papers?
Results. A test of statistical significance shows that there is a difference between the two groups.	
<div style="text-align: center;">  <p>Percentage who helped</p> <p>Percent who stopped to help</p> <p>Gender</p> <p>Experimental Group</p> </div>	<div style="text-align: center;">  <p>Percentage who helped</p> <p>Percent who stopped to help</p> <p>Gender</p> <p>Control Group</p> </div>

Question 17

This study was done in 1972. What are two ethical problems with this study?

2 marks

Question 18

i. What is the operational hypothesis for the Isen and Levin study?

ii. What is the conclusion for this study?

iii. What is a generalization that can be drawn from this study?

3 marks

END OF EXAMINATION