

PSYCHOLOGY

Unit 4

Trial Examination

SOLUTIONS BOOK

Use this page as an overlay for marking the multiple choice answer sheets. Simply photocopy the page onto an overhead projector sheet. The correct answers are blank below. Students should have marked their answers with a cross. Therefore, any blank with a cross inside it is correct and scores 1 mark.

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

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

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

SECTION A – Multiple Choice Answers

Memory		Learning		Research Methods	
1	D	16	B	31	D
2	A	17	D	32	A
3	C	18	B	33	C
4	C	19	D	34	D
5	C	20	A	35	A
6	D	21	C	36	A
7	D	22	A	37	B
8	C	23	C	38	D
9	B	24	D	39	C
10	A	25	A	40	D
11	C	26	D	41	A
12	B	27	C	42	D
13	D	28	C	43	B
14	B	29	B	44	C
15	A	30	B	45	C

SECTION B – Short Answer Section**Question 1**

Working memory is another name for short term memory. Depending on the nature of the material, the normal capacity of STM is 7 ± 2 bits of information. By combining information together in meaningful ways you can increase the information stored. This is called chunking. For example, 9578 is the area code for Bentleigh. So a phone number with 8 numbers becomes only five pieces of information – the area code and the subscriber's number.

2 marks

Question 2

- i Procedural – the area of memory devoted to skills and actions. You cannot use language to show your skills (for example, playing golf) hence it is undeclared.
1 mark
- ii Episodic – our personal or autobiographical memory. Personal experiences are usually stored with a context (time and place) and a state (mood or emotional tag) at the time of the experience.
1 mark
- iii Semantic – the facts, rules or concepts we use everyday. Semantic memory contains the information we call “general knowledge”. Most school subjects are directed at supplying this sort of memory.
1 mark

Question 3

- Elaborative rehearsal involves reorganizing material in a meaningful way to help remember it. For example, the word cervix actually means neck. The cervix most students learn about is near the womb. If Garth can use this information it helps him remember that cervical is first. Garth could also use mnemonics to reorganize the information. There are a number of common techniques like acronyms and acrostics. Most textbooks show the different regions using different colours. Garth could remember the correct order by learning the different colours.
- Maintenance rehearsal is simply the repetition of information over and over again. So Garth sub-vocally repeats “cervical, thoracic, lumbar and sacral” to himself.

2 marks

Question 4

- i Semantic network theory suggests that information in long term memory is organized in overlapping networks of concepts. Different concepts are connected by meaningful links.
- ii The stronger the relationship between ideas then the closer the links and the more quickly the idea can be processed. So statement 6 is quickly processed because we associate flies with disease. Statement 5 is also quickly processed because we know California is in America and therefore we do not need to interrogate our French network. Statements 1, 3 and 4 are “silly”. The networks do not meet and we have to work harder to process the information. This takes more time and reinforces the idea that information is accessed via links. This supports the semantic network approach.

1 mark

2 marks

Question 5

Proactive interference is where old learning interferes with new memory formation. Retroactive interference is where new learning interferes with the retrieval of old information.

2 marks

Question 6

Method of loci involves associating items to be remembered with a sequence of locations. Students can make a number of suggestions as long as each country is associated with a place. For example, you walk through a house and meet a person from each country in each room. Another example, get a map and put the 8 countries in place around the map. You then mentally walk clockwise around the map and name the countries in order.

Acrostics involve remembering a sentence with the first letter of each item to be remembered. *Students do not need to arrange ABCFLNPS into a word to achieve a mark. They must just explain the idea.*

Narrative chaining involves “corrupting” the words and turning them into a story again students do not need to give a story. They just need to explain how it could be done. The last two ideas are very similar. For example, the sentence “Please (Poland) check (Czech) on Aussies (Austria) swishing (Switzerland) luxuries (Luxembourg) from (France) beneath (Belgium) nether (Netherlands) regions” combines aspects of both acrostics and narrative chaining.

3 marks

Question 7

i Similarity

Both are behaviours which are involuntary/automatic/inborn/not dependent on learning **or**

Both are responses to some specific external/internal stimulus.

1 mark

ii Difference

A reflex response can be learned; fixed behaviour patterns are inborn/innate/not dependent on learning **or**

A reflex response involves a simple response, eg. an eyeblink; a fixed behaviour pattern involves a complex but orderly sequence of actions, eg. mating behaviour in birds.

*Note: Do not give marks if the same point is identified as both a similarity **and** as a difference.*

1 mark

Question 8

Give 1 mark each for examples that correctly identify that:

- in positive reinforcement schedules, the desired behaviour is followed by a positive/pleasant consequence, eg. child **receives** pocket-money for cleaning their room.
- in negative reinforcement schedules, the desired response is followed by the removal of something that is unsatisfying/unpleasant, eg. cleaning the room **removes** mother’s nagging.

2 marks

Question 9

i Give one mark for each dot point up to a total of 3 marks

- A token economy is a procedure in which someone is reinforced for appropriate behaviour by being given a token [money, voucher, etc.]. In Ellie's case the 'token' could be a star or a stamp.
- The tokens can be collected/saved/accumulated. In Ellie's case, she could have a chart to which her tokens are attached. Once she has accumulated enough tokens, she can use them for exchange.
- Collected tokens can be exchanged for real rewards, i.e. ones desired by the individual. For example, Ellie may exchange her tokens for a movie outing.

3 marks

ii A behavioural contract, in Ellie's case might involve negotiating the schedule of rewards to be used, e.g. precisely what behaviour will accrue reinforcement, or how many tokens need to be earned before they can be exchanged.

1 mark

Question 10

i Punishment.

1 mark

ii Give 1 mark for any **one** of the following:

- The effects are often temporary, especially when the punisher is not sufficiently aversive. This clearly is not the case in this example.
- It does not teach the appropriate behaviour.
- The "punisher" may not be appropriate; they may in fact act as a reinforcer.
- The recipient may come to dislike/fear the person administering the punishment.
- It is difficult to estimate the level and kind of punishment for maximum effectiveness.

1 mark

Question 11

i Continuous reinforcement is given after every correct response. Partial reinforcement is given intermittently, after only some correct responses.

2 marks

- ii a) Ben: fixed-ratio schedule
b) Suzanna: fixed interval schedule

2 marks

iii Ben's

1 mark

Question 12

- i Random sampling helps ensure that the 1000 people selected are representative of the whole population of voters. Tweedle can then be confident that his results will generalise across the whole population.
1 mark
- ii Stratified sampling is where you select people according to different strata- gender, age, income levels and other factors that may be important. Voters are concentrated in certain areas. If Tweedle wants to predict the result of the election then he needs a stratified sample to predict the results by electorate. The overall vote for the parties is not reflected accurately by the number of seats won. Thus the advantage of stratified sampling is that you examine the effects of your experiment on defined groups.
1 mark

Question 13

- i The main advantage of experiments is that you can identify a causative factor and measure its effect because all other variables have been controlled or eliminated. Statistical analysis can give you confidence limits for your findings and thus you can test/build theory. No other method of data collection gives you this confidence.
2 marks

ii

Type of design	Independent groups <i>1 mark</i>								
Participants – number and method of selection.	<i>There is no absolute answer here but most teachers use 25 participants minimum as a rule of thumb.</i> Experimental 50 voters should be randomly selected and allocated randomly to the two groups – a minimum of 25 voters in each group. <i>1 mark</i>								
Steps in experimental method	<table border="0"> <tr> <td>Experimental</td><td>Control</td></tr> <tr> <td>1. Measure attitudes</td><td>1. Measure attitudes</td></tr> <tr> <td>2. Show film</td><td></td></tr> <tr> <td>3. Measure attitudes and check for changes</td><td></td></tr> </table> <i>2 marks</i>	Experimental	Control	1. Measure attitudes	1. Measure attitudes	2. Show film		3. Measure attitudes and check for changes	
Experimental	Control								
1. Measure attitudes	1. Measure attitudes								
2. Show film									
3. Measure attitudes and check for changes									

(The first step is to measure the attitudes – attitudes can be measured by questionnaires, interviews, physiological recordings etc. Students can describe any method as long as it measures attitudes.)

- iii a) A confounding variable is any other variable that might change systematically with the independent variable. In this study it is possible that the film will affect one group of voters more than the other.

b) As part of the initial survey of attitudes, Dr Tweedle could ask participants to indicate whether they were Labor or Liberal supporters and how strongly they hold those viewpoints.

2 marks

Question 14

The obligations on researchers are:

- deception can only be used where researchers believe they cannot obtain meaningful data in any other way,
- participants are not put in situations which are distressing or degrading,
- participants are debriefed after the experiment.

Debriefing is needed to ensure that the person fully understands why the deception was needed and to ensure that the person is not distressed or disadvantaged by being in the study. If in doubt then the participant should be given access to professional help. (For example, Milgram kept in contact with his “teachers” to make sure they were not harmed by his research.)

2 marks

Question 15

i Single blind procedures are experiments where participants do not know whether they are in the experimental or control group. In drug studies this means that all participants take a tablet. The experimental group will have the active ingredient and the control group will have a placebo.

1 mark

ii Double blind procedures involve both the experimenter and the participant not knowing which of the experimental groups they are in.

1 mark

iii A placebo is a tablet with no medicinal or pharmacological effect. The control group provides the baseline for studying the benefit of the treatment.

1 mark

END OF SUGGESTED SOLUTIONS