Please check the examination details below before entering your candidate information

Candidate surname: StemUp Model Solution

Other names:

Pearson Edexcel
International Advanced Level

Centre Number

Candidate Number

Time 2 hours

Paper reference **WPS04/01**

Psychology

International Advanced Level
PAPER 4: Clinical Psychology and Psychological Skills

You do not need any other materials.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*

Information

- The total mark for this paper is 96.
- The marks for **each** question are shown in brackets – *use this as a guide as to how much time to spend on each question.*
- The list of formulae and statistical tables are printed at the start of this paper.
- Candidates may use a calculator.

Advice

- Read each question carefully before you start to answer it.
- Check your answers if you have time at the end.
- Good luck with your examination.

Turn over ▶

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FORMULAE AND STATISTICAL TABLES

Standard deviation (sample estimate)

$$\sqrt{\left(\frac{\sum(x-\bar{x})^2}{n-1}\right)}$$

Spearman's rank correlation coefficient

$$1-\frac{6\sum d^2}{n\left(n^2-1\right)}$$

Critical values for Spearman's rank

	Level of significance for a one-tailed test				
	0.05	**0.025**	**0.01**	**0.005**	**0.0025**
	Level of significance for a two-tailed test				
N	**0.10**	**0.05**	**0.025**	**0.01**	**0.005**
5	0.900	1.000	1.000	1.000	1.000
6	0.829	0.886	0.943	1.000	1.000
7	0.714	0.786	0.893	0.929	0.964
8	0.643	0.738	0.833	0.881	0.905
9	0.600	0.700	0.783	0.833	0.867
10	0.564	0.648	0.745	0.794	0.830
11	0.536	0.618	0.709	0.755	0.800
12	0.503	0.587	0.678	0.727	0.769
13	0.484	0.560	0.648	0.703	0.747
14	0.464	0.538	0.626	0.679	0.723
15	0.446	0.521	0.604	0.654	0.700
16	0.429	0.503	0.582	0.635	0.679
17	0.414	0.485	0.566	0.615	0.662
18	0.401	0.472	0.550	0.600	0.643
19	0.391	0.460	0.535	0.584	0.628
20	0.380	0.447	0.520	0.570	0.612
21	0.370	0.435	0.508	0.556	0.599
22	0.361	0.425	0.496	0.544	0.586
23	0.353	0.415	0.486	0.532	0.573
24	0.344	0.406	0.476	0.521	0.562
25	0.337	0.398	0.466	0.511	0.551
26	0.331	0.390	0.457	0.501	0.541
27	0.324	0.382	0.448	0.491	0.531
28	0.317	0.375	0.440	0.483	0.522
29	0.312	0.368	0.433	0.475	0.513
30	0.306	0.362	0.425	0.467	0.504

The calculated value must be equal to or exceed the critical value in this table for significance to be shown.

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Chi-squared distribution formula

$$X^2 = \sum \frac{(O-E)^2}{E} \qquad df = (r-1)(c-1)$$

Critical values for chi-squared distribution

	Level of significance for a one-tailed test					
	0.10	**0.05**	**0.025**	**0.01**	**0.005**	**0.0005**
	Level of significance for a two-tailed test					
df	**0.20**	**0.10**	**0.05**	**0.025**	**0.01**	**0.001**
1	1.64	2.71	3.84	5.02	6.64	10.83
2	3.22	4.61	5.99	7.38	9.21	13.82
3	4.64	6.25	7.82	9.35	11.35	16.27
4	5.99	7.78	9.49	11.14	13.28	18.47
5	7.29	9.24	11.07	12.83	15.09	20.52
6	8.56	10.65	12.59	14.45	16.81	22.46
7	9.80	12.02	14.07	16.01	18.48	24.32
8	11.03	13.36	15.51	17.54	20.09	26.12
9	12.24	14.68	16.92	19.02	21.67	27.88
10	13.44	15.99	18.31	20.48	23.21	29.59
11	14.63	17.28	19.68	21.92	24.73	31.26
12	15.81	18.55	21.03	23.34	26.22	32.91
13	16.99	19.81	22.36	24.74	27.69	34.53
14	18.15	21.06	23.69	26.12	29.14	36.12
15	19.31	22.31	25.00	27.49	30.58	37.70
16	20.47	23.54	26.30	28.85	32.00	39.25
17	21.62	24.77	27.59	30.19	33.41	40.79
18	22.76	25.99	28.87	31.53	34.81	42.31
19	23.90	27.20	30.14	32.85	36.19	43.82
20	25.04	28.41	31.41	34.17	37.57	45.32
21	26.17	29.62	32.67	35.48	38.93	46.80
22	27.30	30.81	33.92	36.78	40.29	48.27
23	28.43	32.01	35.17	38.08	41.64	49.73
24	29.55	33.20	36.42	39.36	42.98	51.18
25	30.68	34.38	37.65	40.65	44.31	52.62
26	31.80	35.56	38.89	41.92	45.64	54.05
27	32.91	36.74	40.11	43.20	46.96	55.48
28	34.03	37.92	41.34	44.46	48.28	56.89
29	35.14	39.09	42.56	45.72	49.59	58.30
30	36.25	40.26	43.77	46.98	50.89	59.70
40	47.27	51.81	55.76	59.34	63.69	73.40
50	58.16	63.17	67.51	71.42	76.15	86.66
60	68.97	74.40	79.08	83.30	88.38	99.61
70	79.72	85.53	90.53	95.02	100.43	112.32

The calculated value must be equal to or exceed the critical value in this table for significance to be shown.

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Wilcoxon Signed Ranks test process

- Calculate the difference between two scores by taking one from the other
- Rank the differences giving the smallest difference Rank 1

  Note: do not rank any differences of 0 and when adding the number of scores, do not count those with a difference of 0, and ignore the signs when calculating the difference
- Add up the ranks for positive differences
- Add up the ranks for negative differences
- T is the figure that is the smallest when the ranks are totalled (may be positive or negative)
- N is the number of scores left, ignore those with 0 difference

Critical values for the Wilcoxon Signed Ranks test

	Level of significance for a one-tailed test		
	0.05	0.025	0.01
	Level of significance for a two-tailed test		
n	0.1	0.05	0.02
N=5	0	–	–
6	2	0	–
7	3	2	0
8	5	3	1
9	8	5	3
10	11	8	5
11	13	10	7
12	17	13	9

The calculated value must be equal to or less than the critical value in this table for significance to be shown.

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SECTION A

CLINICAL PSYCHOLOGY

Answer ALL questions. Write your answers in the spaces provided.

1 In your studies of clinical psychology, you will have learned about the following contemporary study in detail:

- Suzuki et al. (2014).

(a) State **one** aim of the study by Suzuki et al. (2014).

(1)

To investigate the prevalence of underweight and obesity in Japanese inpatients with schizophrenia.

(b) Describe **one** control used by Suzuki et al. (2014) when selecting the inpatient sample.

(2)

They controlled for recent changes in drug therapy and treatment by excluding any inpatients whose drug therapy had recently been changed. Patients taking drugs other than antipsychotics, benzodiazepines and mood stabilisers were also excluded, so medication could not confound the BMI results.

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(c) Explain **two** weaknesses of the sample used by Suzuki et al. (2014).

(4)

1 *The sample of 333 inpatients with schizophrenia only included patients in Japan, so it is not representative of cultural differences, such as diet and typical body size, that may affect the nutritional status and weight of patients with schizophrenia in other countries.*

2 *The patients came from only nine hospitals in Niigata Prefecture, which may not reflect the treatment, food and activity of all inpatients with schizophrenia in Japan, so the findings have limited generalisability beyond hospitals in that region.*

(d) State **two** improvements that could be made to the control group used by Suzuki et al. (2014).

(2)

1 *Include people with schizophrenia who are not inpatients (outpatients) in the control group to compare with the inpatients.*

2 *Use a control group the same size as the 333 inpatients instead of just 191 people.*

(Total for Question 1 = 9 marks)

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2 Miles plans to conduct an investigation into a new drug therapy for patients with schizophrenia. He intends to use a semi-structured interview with patients from three clinics who have been prescribed the new drug therapy.

Miles aims to find out whether the patients experience any problems and how well they believe their symptoms are treated with the new drug therapy.

(a) Describe how Miles can use an opportunity sampling technique to gather participants for his investigation.

(2)

Miles could arrange a day to attend each of the three clinics when patients taking the new drug therapy are due to be there for appointments. He would then ask the first patients with schizophrenia who turn up and are available at that time if they would like to be interviewed.

(b) Describe how Miles can carry out a semi-structured interview with the patients who have been prescribed the new drug therapy at the three clinics.

(4)

Miles would have a flexible interview plan that outlines the key topic areas he wants to find out about, such as problems experienced with the new drug and how well it treats the patients' symptoms. He would start each interview with some pre-planned questions about the drug therapy, for example asking how many unwanted side effects, such as weight gain or tiredness, the patient has experienced since starting it. He could then ask patients to elaborate on any benefits or problems they mention in their answers, using follow-up questions that are not pre-planned, such as "Can you tell me more about how the drug has affected your hallucinations?". He would use the same core questions at all three clinics and record the interviews to analyse later.

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(c) Describe **one** ethical consideration Miles would need to make in his investigation into the new drug therapy for schizophrenia.

(2)

Miles would need to maintain the confidentiality of the patients with schizophrenia by not disclosing their names, clinics or any personal identifiers. Their mental health problems and drug treatment are sensitive information, so the patients should not be identifiable by anyone reading his research.

(Total for Question 2 = 8 marks)

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3 Rosenhan and Seligman (1989) suggest that a failure to function adequately can be used to define abnormality.

Explain **one** strength and **one** weakness of using failure to function adequately to define abnormality.

Strength

Behaviours that are maladaptive or irrational and do not fit socially expected norms, such as not being able to get out of bed or go to work, are easily observable by others. This means abnormality can be empirically measured, as the definition does not rely on introspection or personal reflective accounts.

Weakness

It is subjective, as some people engage in maladaptive behaviour that is dangerous to them but is not considered abnormal. For example, adrenaline sports such as base jumping are dangerous but are not seen as abnormal, so an objective definition of abnormality is difficult to make.

(Total for Question 3 = 4 marks)

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4 In your studies of clinical psychology, you will have learned about schizophrenia.

(a) Give **one** symptom and **one** feature of schizophrenia.

(2)

Symptom

Auditory hallucinations, such as voices giving a running commentary on the patient's behaviour.

Feature

Men usually develop schizophrenia between 18 and 25 years old, while women usually develop it between 25 and 35 years old.

(b) Describe **one** biological theory/explanation for schizophrenia, other than the function of neurotransmitters.

(3)

One biological explanation is brain structure. Parts of the brain have been observed to differ in size in people with schizophrenia compared with people without schizophrenia. Brain scans such as CAT and MRI scans have found ventricular enlargement in patients with schizophrenia, meaning the fluid-filled spaces in the brain are larger, which suggests there is less brain tissue around them. The temporal lobe has also been found to be smaller in the brains of patients with schizophrenia, and as this area is involved in processing sounds and language, this may explain symptoms such as auditory hallucinations.

(Total for Question 4 = 5 marks)

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5 Analyse whether the study by Rosenhan (1973) can be considered valid.

(6)

Rosenhan (1973) conducted his study in 12 real psychiatric hospitals in five states of the USA, including state and private facilities, so it has high ecological validity. The hospitals were real-life settings, and the staff did not know they were being studied, so their behaviour represented how psychiatric care actually took place for real patients.

The pseudo-patients also took detailed notes of what actually happened on the wards, which gives validity to the data. The notes gave rich, detailed qualitative data about how inpatients were treated, such as staff spending little time with patients, and about how the pseudo-patients felt, such as powerless and depersonalised.

However, the eight sane volunteers were given a fixed, clear and specific symptom to report, hearing voices saying "empty", "hollow" and "thud". This may not be a valid test of diagnosis, because real patients who are mentally ill often present in distress, with confusion and unclear descriptions of their symptoms. In addition, psychiatrists are trained to take reported hallucinations seriously, so diagnosing schizophrenia may have been a reasonable decision rather than evidence that diagnosis is invalid.

Overall, the study has high ecological validity, but it is less valid as a test of how real patients are diagnosed.

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(Total for Question 5 = 6 marks)

TOTAL FOR SECTION A = 32 MARKS

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SECTION B

CLINICAL PSYCHOLOGY

Answer the question. Write your answer in the space provided.

6 In your studies of clinical psychology, you will have learned about one of the following mental health disorders:

- Unipolar depression
- Anorexia nervosa

Evaluate the effectiveness of Cognitive Behavioural Therapy (CBT) as a treatment for your chosen disorder.

(16)

Chosen mental health disorder

Unipolar depression

Cognitive Behavioural Therapy (CBT) is based on the idea that depression is caused by faulty, negative thought patterns. The therapist first helps the client identify negative thoughts, such as perceiving situations as worse than they are or rejecting positive experiences. These thoughts are then challenged by questioning the faulty beliefs and testing them against evidence. The client practises replacing negative thoughts with more realistic ones, and role play may be used to work through situations that cause low mood or social withdrawal. Homework tasks, such as a thought diary, let the client continue to reflect on their thinking away from therapy sessions and practise positive, balanced self-talk when facing difficult life circumstances.

There is evidence that CBT targets a real cause of depression. Lewinsohn et al. (2001) measured dysfunctional attitudes in teenagers with no history of depression and found that one year later, those experiencing negative life events who scored highly on dysfunctional attitudes were most likely to be diagnosed with depression. This suggests dysfunctional thinking contributes to depression, so a therapy that changes this thinking should be effective. Segal et al. (2006) also found that patients with more mood-linked negative thinking had a higher risk of relapse, and that CBT was more effective than drug treatment at changing this negative thinking. This

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means CBT may reduce relapse, so its effects may last longer than drugs, which only work while they are being taken.

Research comparing CBT with drugs gives a more mixed picture. Cuijpers et al.'s (2013) meta-analysis found that CBT was no more effective than drug treatment when used alone, but was most effective when combined with drug treatment. March et al. (2007) similarly found CBT was as effective as antidepressants for adolescents, but a combination of both may be more effective. This suggests CBT is effective, but not always enough on its own.

One reason for this is that CBT does not account for other causes of depression, such as low serotonin. SSRIs successfully treat symptoms by increasing serotonin, so if a person's depression is mainly biological rather than cognitive, CBT alone may not address the cause. Psychoanalysis would also argue that depression is a defence against facing traumatic childhood memories, which CBT does not explore, so it may only treat the symptoms in the present.

The effectiveness of CBT also depends on the client and the therapist. CBT requires motivation to complete homework tasks and attend sessions, which may be difficult for people with depression, who often lack energy and interest in daily life, so severely depressed clients may drop out. Kuyken and Tsivrikos (2009) found the effectiveness of CBT was affected by the competency of the therapist and by co-morbid disorders, so outcomes vary for reasons other than the severity of the depression. However, online CBT such as 'Beating the Blues' can make the therapy more accessible and suit individual needs, so more patients can benefit from it, including those who would not attend face-to-face sessions.

In conclusion, CBT is an effective treatment for unipolar depression, as it targets the dysfunctional thinking that research links to depression and may reduce relapse. However, its

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effectiveness depends on the client's motivation, the therapist's skill and the cause of the depression, so it is most effective when combined with drug therapy, especially for severe depression.

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(Total for Question 6 = 16 marks)

TOTAL FOR SECTION B = 16 MARKS

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SECTION C

PSYCHOLOGICAL SKILLS

Answer ALL questions. Write your answers in the spaces provided.

7 Alonso is investigating the sleep patterns of individuals with teaching jobs compared to individuals with office jobs. He believes that stress associated with different job roles can affect sleep.

Alonso wants to find out if there is a difference in the amount of sleep that the individuals get each night. He asks an opportunity sample of 30 teachers and 30 office workers to record the number of hours sleep they have each night for two weeks.

(a) State a fully operationalised directional (one-tailed) hypothesis for Alonso's investigation.

(2)

Individuals with an office job will record more hours of sleep each night over two weeks than individuals with a teaching job.

(b) Identify the experimental/research design Alonso used in his investigation.

(1)

Independent groups design.

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(c) The median scores for the data collected by Alonso are shown in **Table 1**.

	Teachers	Office workers
Median number of hours sleep recorded by participants	8	7

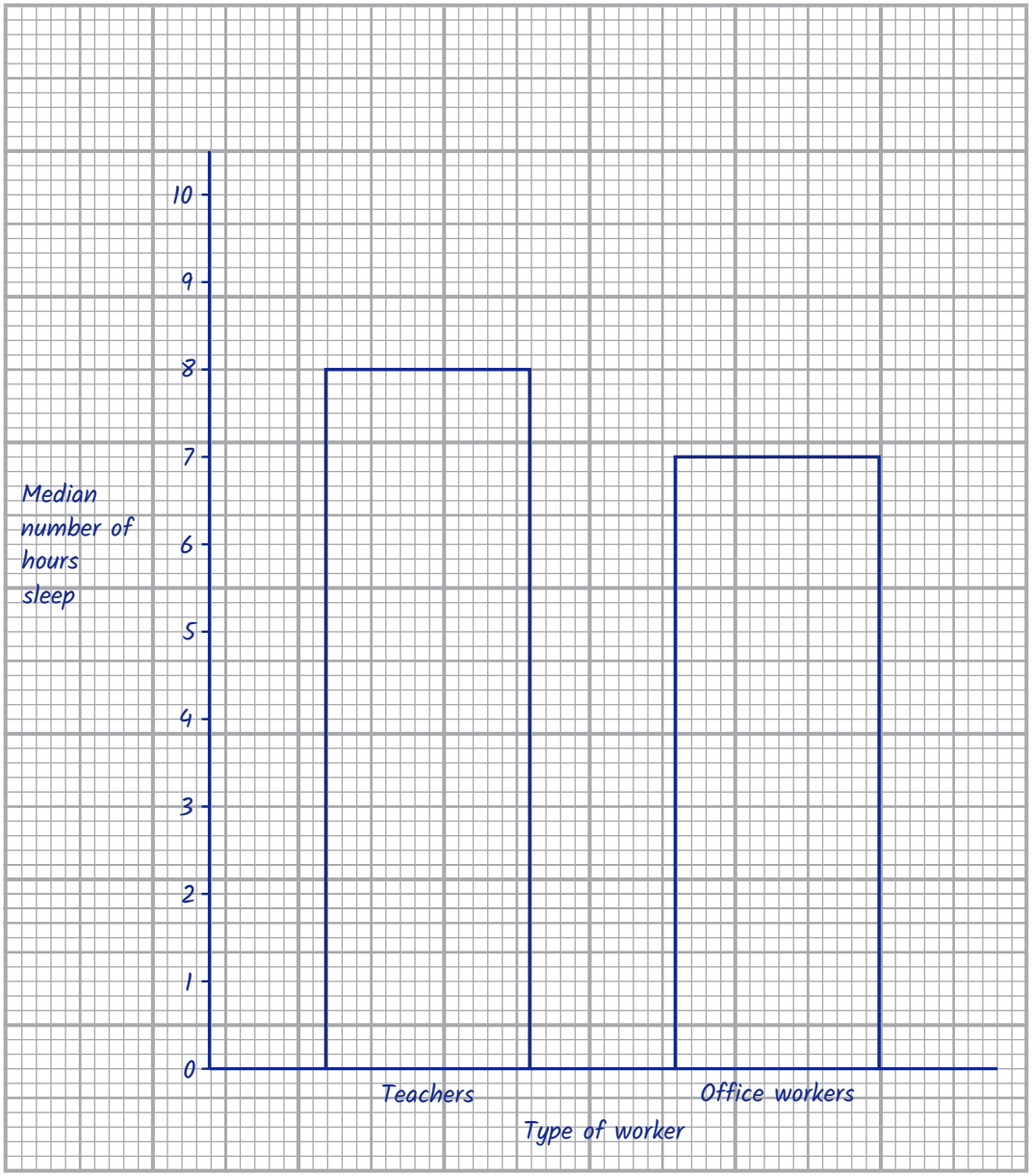
Table 1

Draw a bar chart for the data shown in **Table 1**.

(3)

Title

A bar chart to show the median number of hours sleep recorded by teachers and office workers



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(d) Alonso found that there was a range of four hours in the number of hours sleep recorded by office workers.

The lowest number of hours recorded by office workers was five hours.

Determine the highest number of hours sleep recorded by office workers.

(1)

Space for calculations

Highest = lowest + range = 5 + 4 = 9

Highest number of hours sleep recorded ..... 9 hours .....

Alonso categorised his participant data into those who recorded six hours sleep or less and those who recorded more than six hours sleep.

His data is shown in **Table 2**.

	Teachers	Office workers
Six hours sleep or less	18	9
More than six hours sleep	12	21

Table 2

(e) Calculate, using the data in **Table 2**, the ratio of teachers to office workers who recorded six hours sleep or less.

You **must** express your answer in the lowest form.

(1)

Space for calculations

Teachers : office workers = 18 : 9

18 ÷ 9 = 2, 9 ÷ 9 = 1

Ratio ..... 2 : 1 .....

(f) Calculate, using the data in **Table 2**, the percentage of teachers who recorded six hours sleep or less as a percentage of all participants in Alonso's investigation.

(1)

Space for calculations

Total = 18 + 9 + 12 + 21 = 60

18 ÷ 60 × 100 = 30%

Percentage ..... 30% .....

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(g) Calculate the chi-squared for the data gathered by Alonso in his investigation by completing **Table 3.**

Your answers should **all** be correct to **two** decimal places.

(4)

		Observed	Expected	O-E	$(O-E)^2$	$(O-E)^2/E$
Six hours sleep or less	**Teachers**	**18**	**13.50**	4.50	20.25	1.50
	Office workers	**9**	**13.50**	−4.50	20.25	1.50
More than six hours sleep	**Teachers**	**12**	**16.50**	−4.50	20.25	1.23
	Office workers	**21**	**16.50**	4.50	20.25	1.23
				Chi-squared =		5.46

Table 3

Space for calculations

O − E: 18 − 13.50 = 4.50, 9 − 13.50 = −4.50, 12 − 16.50 = −4.50, 21 − 16.50 = 4.50

$(O - E)^2 = 4.50^2 = 20.25$ for every cell

20.25 ÷ 13.50 = 1.50, 20.25 ÷ 16.50 = 1.227... = 1.23

$\chi^2 = 1.50 + 1.50 + 1.23 + 1.23 = 5.46$

(h) Determine, with reference to the data, whether Alonso's results are significant for a one-tailed (directional) test at P≤0.025 where *df*=1.

The critical values table can be found at the front of the paper.

(1)

The calculated value of 5.46 is greater than the critical value of 3.84 (one-tailed, p ≤ 0.025, df=1), so the results are significant.

(Total for Question 7 = 14 marks)

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8 Mary is investigating the role of authority figures in society. She decides to gather qualitative data as she believes this would be valid.

Mary interviews members of the public to ask them about their experiences of the police and why they obey the law.

(a) Describe why Mary may believe that qualitative data will be valid for her investigation.

(2)

Mary will gather in-depth, real-life experiences from members of the public about their dealings with the police in their own words. These will explain in detail the reasons why they obey the law, rather than restricting them to fixed answers chosen by Mary.

(b) Explain **two** weaknesses of Mary using qualitative data in her investigation.

(4)

1 *The views about obeying the law and the police may be open to subjective interpretation by Mary when she analyses the interviews, so her findings about the role of authority figures in society may lack objectivity and be unreliable.*

2 *Members of the public may not give Mary their true opinions of the police or the law because of social desirability, for example claiming they always obey the law, so her conclusions about authority figures may not be a valid representation of real public opinion.*

(Total for Question 8 = 6 marks)

TOTAL FOR SECTION C = 20 MARKS

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SECTION D

Answer the question. Write your answer in the space provided.

9 One key question for society is why people form relationships with their romantic partner of choice.

Byrne and Clore (1970) claimed that romantic relationships form to satisfy human needs and because of the benefits achieved from relationships. They believed that learning theories could explain the desire to find a romantic partner through ideas such as the rewards from companionship and intimacy.

However, evolutionary explanations point to an innate desire to find a mate and that this differs between males (who look to reproduce) and females (who look for protection). Some biological aspects of human physiology, such as hormones or attractive physical features, are claimed to attract the opposite sex merely in order to reproduce and pass on genes.

Discuss the key question of why people form relationships with their romantic partner of choice. You should use concepts, theories and/or research studied in your psychology course.

You must make reference to the context in your answer.

(8)

Learning theories suggest that people form relationships with a partner of choice because of the rewards they receive. In operant conditioning, positive reinforcement is when a desired consequence leads to a behaviour being repeated. As Byrne and Clore (1970) claim, companionship and intimacy are rewards, so spending time with a particular partner is reinforced and the relationship is maintained. Negative punishment is when a desired consequence is removed, so the behaviour stops: if a partner no longer provides intimacy and companionship, the person may end the relationship. Classical conditioning may also explain choice, as a partner becomes associated with positive feelings experienced in their company. This explains why people choose partners who meet their needs, such as for support and self-esteem.

However, evolutionary explanations argue that relationships form because of an innate drive to reproduce and pass on genes. The physiology of humans requires a male and a female to reproduce, and, as the context states, the sexes differ in what they look for. Males may choose partners showing signs of fertility, such as youth and attractive physical features, while females

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look for protection and resources to raise offspring. Buss (1989) found these sex differences in mate preferences across 37 cultures, which supports an innate rather than learned explanation. Hormones and pheromones, which are released unknowingly and signal information to others, may also attract the opposite sex, suggesting people form relationships for a biological purpose rather than through free personal choice.

The evolutionary explanation cannot easily explain same-sex relationships or couples who choose not to have children, where companionship and intimacy seem to be the main reward, which supports learning theories. However, learning theories cannot explain why preferences are so similar across cultures. Overall, both are likely to play a part: biology may influence who we are first attracted to, but the rewards of companionship and intimacy explain why people stay with their partner of choice.

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(Total for Question 9 = 8 marks)

TOTAL FOR SECTION D = 8 MARKS

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SECTION E

Answer the question. Write your answer in the space provided.

10 *"The study of human behaviour may be complex, but it should avoid subjective interpretation, so psychology should attempt to be scientific".*

Evaluate the statement that psychology should attempt to be scientific.

(20)

Science is the empirical study of observable, measurable evidence using objective, value-free methods. A scientific approach uses hypothesis testing, laboratory experiments with standardised controls and quantitative data to look for cause and effect relationships, and its procedures can be replicated to test reliability. Scientific psychology often reduces behaviour to smaller components that can be measured, such as heart rate, BMI or neurotransmitter levels, and takes a nomothetic approach, aiming to establish universal laws of behaviour. In contrast, non-scientific approaches, such as psychodynamic theory, use introspective methods to discover detailed personal histories, and some research studies behaviour in its social context to give a holistic view.

There are strong arguments that psychology should be scientific. Scientific research produces objective data that is not open to the researcher's interpretation. For example, Baddeley (1966b) measured memory as the number of words recalled in the correct order, an objective quantitative measure, so his conclusions about semantic encoding in long-term memory can be trusted and replicated. Loftus and Palmer (1974) used structured laboratory experiments with controlled verb conditions to show that leading questions affect speed estimates, which gave scientific credibility to reconstructive memory and improved the status of psychology when eyewitness testimony is discussed in court. This shows that being scientific allows psychology to establish cause and effect and to be applied in society with confidence.

However, scientific methods often lack validity. Testing isolated behaviour in artificial settings

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may not reflect real life. Milgram (1963) tested obedience in a laboratory with a fake electric shock task, which is unrealistic compared with obedience in everyday life, so being scientific may come at the expense of ecological validity. Reductionist explanations, such as the dopamine hypothesis for schizophrenia, also exclude the complexity of human behaviour, such as social and cognitive factors, which limits their validity. The diathesis-stress model considers an interaction between biology and environmental triggers; it is less scientific than a purely biological explanation but more plausible in explaining the onset of mental illness, which suggests that strict science is not always the best way to understand behaviour.

Non-scientific methods can provide valuable understanding that science cannot. Rosenhan (1973) used participant observation in real psychiatric hospitals, gathering subjective qualitative data, but this was representative of the real social context in which inpatients were depersonalised, so the findings were more generalisable to wider society. Bartlett (1932) did not use strict controls in his studies of reconstructive memory, reducing their scientific status, but his conclusions are supported by later research, which suggests scientific methodology is not always needed for valid findings. Psychoanalysis is introspective, so its concepts cannot be falsified, which lowers its scientific status; however, it allows individual, personal histories to be explored in therapy, which nomothetic, scientific approaches ignore.

Even when psychology is scientific, subjectivity may still enter. van IJzendoorn and Kroonenberg (1988) reviewed cross-cultural studies using the Strange Situation, which records empirically observable infant behaviour, but the procedure was developed in the USA and ignores cultural differences in parenting styles, so the interpretation of behaviour, such as classifying Japanese infants as insecure, may be biased. This suggests scientific testing should take place, but with consideration of cultural relativism. Also, psychology studies people who are aware of being studied, so demand characteristics can affect even controlled experiments, meaning psychology

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can never be as objective as the natural sciences.

In conclusion, the statement is largely correct, as psychology should attempt to be scientific: objective, replicable methods avoid subjective interpretation, establish cause and effect and give psychology credibility when it is applied, for example in court. However, a purely scientific approach can be reductionist and artificial and may ignore individual and cultural differences. Psychology should therefore use scientific methods where possible but combine them with qualitative and real-life research, so that the complexity of human behaviour is not lost.

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TOTAL FOR SECTION E = 20 MARKS
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