

2005 Psychology

Higher Old Arrangements

Finalised Marking Instructions

These Marking Instructions have been prepared by Examination Teams for use by SQA Appointed Markers when marking External Course Assessments.

Psychology Higher

General Marking Instructions

- Suitable alternative answers should be credited as appropriate for all questions.
- Where a candidate is asked to explain a question for 2 marks; one mark should be given for identifying the point and the second for explaining.

Psychology Higher

Marking Instructions

SECTION A

APPROACHES AND METHODS IN PSYCHOLOGY

Answer ALL questions in this Section.

Jodie, age 7, has been aggressive recently both at home and at school. Her school is considering suspending her. A **case study** of Jodie is prepared. Two psychologists attempt to explain this behaviour using the information from the case study. One takes the **biological** approach to explain the girl's behaviour; the other gives an explanation from the **psychoanalytic** viewpoint. Both psychologists have read **correlational** studies linking watching aggression on TV to violent behaviour.

A1.

- (a) **Describe** in full the features of the **biological** approach in psychology.

The way we think/act is linked to physical states	1
All thoughts, experiences and actions are a direct result of brain activity	1
Evolution has a large part to play in our behaviour – Darwin's theory should be mentioned (like begets like, variation, mutations, emotions)	2
The body's physical systems should be described (nervous system, brain and endocrine system). Either one in detail or 2 or more in less detail.	5
Nature/nurture	1

(10)

- (b) Explain the **limitations** of both the **biological** approach and the **psychoanalytic** approach in psychology.

Biological (any two for 4 marks)

Reductionist view – reducing human experience to basic electrical impulses
Biological processes alone cannot account for every aspect of human behaviour eg appreciation of art
Many experiments used animals – we cannot generalise from animal processes or brains – ours are more complex
Case studies show that some who have brain damage can still operate and perform functions that they should not be capable of in terms of biological psychology explaining behaviour

Psychoanalytic (any two for 4 marks)

Relies on hypothetical constructs such as 'the unconscious' so cannot be tested properly
Cannot be refuted
Sample that Freud based his theories on was limited and biased (middle class Austrian women)

The use of case study method implies that we should not be able to generalise the results
Very deterministic and pessimistic

(8)

A2.

- (a) Describe the **case study** method of research used in psychology and explain why it would be useful in Jodie's situation.

6 marks for

Long term and individual study of individual or small group
Involves gathering information from a variety of sources such as medical records, tests, interviews and observations
Often used for unusual/difficult behaviour
Retrospective in nature so can be misleading

2 marks for

A case study is useful for gathering in depth qualitative information from all aspects of Jodie's life. Enabling the psychologist to gain insight into Jodie's behaviour.

(8)

- (b) Give **two** advantages and **two** disadvantages of the **correlational** method.

Advantages – Any two for 4 marks

One way to show relationship between co-variables
Gives an indication of where further research could be developed
Can be used to make predictions of one value when the other value is known
Can see a visual relationship if a scattergram is used
Can be used to test reliability of a test (two measures over time)

Disadvantages – Any two for 4 marks

Does not give cause and effect relationship
May use secondary sources over which you have little control
Even where a correlation exists there may be no real relationship

(8)

An experiment was carried out to investigate whether performance in an exam was affected by the length of sleep. Two conditions were used. In Condition 1 participants would have an average of eight hours sleep in the twenty four hours prior to the test. In Condition 2 participants would remain awake for the twenty four hours prior to the test.

A3.

- (a) Briefly describe an independent and repeated measures design.

Independent group

Participants are assigned to one group only, either the experimental or control group. Participants take part in only one trial.

2

Repeated measures

Participants take part in both the experimental and control group.

2

(4)

- (b) Compare the merits of using an **independent group** design with a **repeated measures** design in the above experiment.

A minimum of 2 points should be provided for 3 marks.

Repeated measures reduces subject variables – less bias
Less costly in time and money – uses less people
Can use counter balancing which helps to show the effect of IV
Useful to show that it is lack of sleep rather than different ability

Independent group reduces order effects – can lead to bias
Reduces boredom/fatigue effects when separate groups are used
Reduces need for different test item (as same group could not be given exactly same test in repeated measures – practice effect)

The points given should be related to the example for full marks (**1 mark**).

(4)

- (c) Explain what a **null hypothesis** is and suggest one for the above experiment.

A null hypothesis states that the IV does not have an affect on the DV. The result occurs by chance. All experiments should have a null hypothesis as well as an experimental hypothesis. If the results show no effect then null is retained. If result shows an effect null is rejected.

2

Performance on a test is not affected by number of hours of sleep in the preceding twenty four hours (or similar)

1

(3)

(45)

[END OF SECTION A]

SECTION B

SOCIAL PSYCHOLOGY

Answer BOTH questions B1 and B2 and ONE question from B3 to B7.

Answer ALL parts of the chosen question

B1. Explain **two** of the following concepts:

Attitude

Attitude could be explained as a relatively permanent disposition towards another person or event.	1
Answer could describe an attitude as a variety of feelings including like or dislike of someone or something or in terms of beliefs and feelings towards particular issues.	2
Aspects of attitude should include mention of attitude formation, attitude change /persuasive communication.	3
Prejudice and discrimination could be explained as examples of extreme attitudes.	4

Alternative suitable answers should be credited as appropriate (10)

Social pressure

Social pressure could be explained in terms of the power other people have to influence our behaviour.	2
An example of social influence could be briefly explained in terms of how social pressure influences different areas of our lives eg persuasive communication or peer pressure.	2
Conformity should be explained.	2
Factors affecting conformity should be identified.	2
Obedience should be explained.	2

Alternative suitable answers should be credited as appropriate. (10)

Altruism and Aggression

Definition: Altruism	1
Definition: Aggression	1
Theories/factors affecting altruism, eg SLT, Bystander intervention	4
Theories/factors affecting aggression, eg frustration/aggression, hypothesis	4

Alternative suitable answers should be credited as appropriate. (10)

Leadership

A leader is explained as a form of social influence.	1
A leader is explained as a key member of a group who acts to direct group members towards a common goal.	2
Personality/trait model of leadership could be mentioned with two characteristics of leaders given from: more intelligent, self confident, dominant, sociable, achievement-oriented, older, more experienced or taller.	2
Trait and situational models of leadership could be distinguished.	2
Leadership styles could be explained in terms of autocratic, democratic and laissez-faire.	3
Alternative suitable answers should be credited as appropriate.	(10)

Person/Social Perception

Explain that person/social perception concerns the various ways our previous experiences and assumptions influence how we perceive others.	1
Factors affecting our perceptions of others could be mentioned including examples of social and cultural factors.	2
The importance of social relationships in our lives should be explained briefly.	2
Relevant research examples of person/social perception.	2
The factors which influence interpersonal attraction, could be explained briefly, eg proximity, exposure, familiarity.	3
Alternative suitable answers should be credited as appropriate.	(10)

B2. Using **one** specific example for **each** concept chosen, explain how knowledge of this concept is applied in psychology.

Theory/research underpinning the application is given correctly.	2
Example given is accurately related to one of the following fields: Health; work; education; society.	1
Explanation of application is clear and accurate.	2
	(5,5)
	(30)

Answer ONE question from B3 to B7.

Answer ALL parts of the chosen question.

B3. Attitude

Sherif (1956) undertook an investigation which eventually became known as the "Robber's Cave Experiment".

(a) What was the **aim** of this study?

The study attempted to address prejudice in terms of inter-group conflict – a conflict of interest which exists between two groups.

Sherif (1956) attempted in this study to see if they could take a group of people without any hostile attitudes towards each other and create hostility between them. 2

(b) Sherif suggested that inter-group conflict arises as a result of a conflict of interests. Explain the **procedure** that the researchers used to produce conflict.

- The researchers organised a two-week summer camp for a total of 22 boys at Robber's Cave.
 - The boys were assigned to one of two groups, each of which adopted their own name. This and the wearing of T-shirts helped the creation of group identities.
 - The next step was to introduce inter-group competition in order to generate conflict.
- 6

(c) Explain how the researchers reduced the prejudice which existed between the two groups.

The prejudice was reduced when the experimenters replaced the competitive situation with a co-operative one in which the success of each group required the co-operation of the other one, such as repairing a broken cistern and pushing the camp bus that broke down. 3

(d) Identify **two** ethical problems related to this study.

Dubious ethical practice: It could be argued that a certain amount of stress was experienced by the boys in the study. They were also deceived in relation to what was involved in their two-week summer camp activities. 2

(e) What **conclusions** did Sherif reach?

Sherif concluded that inter-group conflict arises as a result of a conflict of interest; when two groups want to achieve the same goal but cannot both have it, hostility is produced between them

OR

To reduce prejudice equal status contact is needed.

2

(15)

B4. Social Pressure

Asch (1955) undertook an investigation to understand conformity behaviour in people.

- (a) Explain the **aim** of Asch's study.

Asch wanted to test conformity under non ambiguous conditions. 2

- (b) Describe the **procedure** used in this study.

Asch devised a simple perceptual task of matching the length of a line to one of three other comparison lines. In the experimental condition only one real (naïve) participant was tested, but was surrounded by six confederates of the experimenter, who were supposed to be participants but had been told beforehand to all give the same wrong estimate on 12 out of 18 trials. The only real participant was second to last to give their estimate, and was, therefore, faced with either giving their own opinion or conforming to the group opinion on the critical trials. 6

- (c) What were the **results** of Asch's study of conformity?

Three from:

- 75% of the 123 real participants, on twelve critical trials where incorrect answers were set up, went along with the majority at least once
- 25% did not conform at all
- 5% conformed on every trial
- the average rate of conformity was 32%. 3

- (d) State **two** criticisms that can be made of the method used by Asch to investigate conformity.

Two from:

- people are being misled therefore the study could be considered unethical
- research was conducted solely on students
- the study was artificial. Conformity was investigated in laboratory conditions (not ecologically valid)
- the study explains conformity with reference to group dynamics. Asch makes no attempt to relate the findings to the conformist Social climate of 1950s America. 2

- (e) Give **two** factors which Asch believed affected conformity.

Two from:

- the use of strangers rather than friends
- the choice of students as research participants
- the meaningless nature of the task
- participants did not want to upset the experimenter
- participants did not want to appear different/foolish. 2

(15)

B5. Altruism and Aggression

Bandura, Ross and Ross (1961) got children to observe a model assaulting a Bobo doll, which is a large inflatable rubber doll.

- (a) Explain the **aim** of Bandura's study.

This study looks at how aggressive behaviour develops in children. Bandura set out to demonstrate that if children are passive witnesses to an aggressive display by an adult, they will imitate this aggressive behaviour when given the opportunity.

2

- (b) Describe the **procedure** Bandura used to investigate this.

Bandura used 36 boys and 36 girls aged between 37 to 69 months. The mean age was 52 months. They used one male adult and one female adult to act as role models.

The study had 3 major conditions: a control group, a group exposed to an aggressive model, and a group exposed to a passive model.

The researchers were aware that the results could be distorted if one group contained a few children who are normally quite aggressive. They tried to reduce this problem by pre-testing the children and assessing their aggressiveness, by a 5-point rating scale. The researchers could then match the children in each group so that they had similar levels of aggression.

The children were tested individually. In **stage 1**: they were taken to the experimental room which was set out for play. In one corner of the room there was a children's play area. The adult model was escorted to the other corner of the room, where there was a Bobo doll – a five foot inflatable doll. The experimenter then left the room.

The non-aggressive condition: they "played" ignoring the Bobo doll. In the aggressive condition the adult "played" but after one minute turned to Bobo and was aggressive (physically and verbally) to the doll.

In **stage 2** the child was subjected to "mild aggression arousal". The child was taken to a room and allowed to begin playing with the toys. The child was then told that the experimenter had decided that these toys were reserved for the other children.

The child was taken to the next room for **stage 3** of the study. The experimenter stayed in the room. In the room there was a variety of toys both non-aggressive and aggressive toys. The child was kept in the room for 20 minutes. Their behaviour was observed by judges through a one-way mirror.

Observations were made at five-second intervals giving 240 response units for each child. The observers recorded the child's responses and looked to see if these were similar to the display of the adult model.

Answer should be marked holistically. All of the above points need not be described for full marks.

6

(c) What **type** of experiment did Bandura use?

Bandura used a laboratory experiment. 1

(d) What were the independent **and** dependent variables in this study?

The independent variable was the type of model. The dependent variable was the amount of imitative behaviour and aggression shown by the children. 2

(e) Describe **one** methodological and **one** ethical problem associated with this study.

One from methods and one from ethical – 2 marks each

Methodological:

Procedure – not completely standardised presentation of model's behaviour (later experiments used videotape presentation).

Artificiality – bizarre acts of aggression were shown and imitated against a Bobo doll, not a real person.

Ethical problems: Aggression was induced in, and taught to, children. Exposure to an adult stranger's aggression may have been frightening for the children.

4

(15)

B6. Leadership

Lewin, Lippitt and White (1939) arranged for groups of boys in an after-school hobbies club to make soap models under different styles of leadership.

- (a) What was the **aim** of Lewin, Lippitt and White's study?

The aim of this study was to investigate a variety of leadership styles carried out by adults and to see their effect on the "atmosphere" and "performance" of the group, consisting of 10 year old boys.

2

- (b) Explain how Lewin, Lippitt and White conducted this study.

Lewin *et al* set up 3 parallel well-motivated groups of boys and girls to engage in model making in after school clubs. The groups were led by adults who acted in one of three ways:

Autocratic leaders – told the boys what sort of models they would make and with whom they would work. They sometimes praised or blamed boys for their work, but did not explain their comments, and although friendly, they were also aloof and impersonal.

Democratic leaders – discussed various possible projects with the boys and allowed them to choose who they would work with and generally make their own decisions. The leaders explained their comments and joined in with group activities.

Laissez-faire leaders – left the boys very much to their own devices and only offered help when they asked for it (which was not very often) and gave neither praise nor blame.

4

- (c) What were the **results** of Lewin, Lippitt and White's study?

The boys with an autocratic leader became very aggressive towards each other when things went wrong, and were very submissive in their approaches to the leaders. These approaches were often attention-seeking. If the leader left the room, the boys stopped working and became either disruptive or apathetic.

The models were made comparable in terms of both quantity and quality to those produced by the boys with the democratic leader.

The boys with the democratic leader actually produced slightly less work than those with the autocratic leader. They got on much better with each, and seemed to like each other much more than was the case with the boys who had the autocratic leader. Any approaches made to the leader tended to be task-related. When the leader left the room, the boys carried on working and showed greater independence. They also co-operated when thing went wrong.

Like the boys with the autocratic leader those with the laissez-faire leader were aggressive towards each other (although the amount of aggression shown was slightly less than for the boys with the autocratic leader).

The boys also got very little work done, whether the leader was present or not, and were easily discouraged from finding solutions when things did not go exactly right for them.

6

(d) What did Lewin, Lippitt and White conclude from this study?

The findings of their research strongly suggest that it is leadership style that is important rather than the personality of the leader, and it is this which influences the behaviour of people in a group.

2

(e) State **one** methodological problem associated with this study.

Mention **one** from the following:

- situation is artificial
- situation is not representative of real life
- sample of 10 year old boys limits generalisability
- the success of the democratic style may reflect the ethos of American society at that time.

1

(15)

B7. Person/social perception

Lea and Duck (1982) used a number of male and female undergraduates in their research.

- (a) What was the **aim** of this study?

To show that if people have similar values personal attraction between them will be enhanced.

2

- (b) Lea and Duck's study had **two** hypotheses. State both hypotheses.

- the importance of values to participants and the uncommonness of similarity will affect the relationship (or similar)
- the importance of the above factors for participants was dependent upon factors that related to the length of their friendship (or similar).

4

- (c) Give **one** criticism of the method used in this study.

Only gives a snapshot of time. Gives no indication of the effect of time on relationships.

1

- (d) Provide details of the participants in this study.

Three groups of participants consisting of pairs of friends who had been acquainted for (1) 1-2 months, (2) 4-6 months and (3) 12+ months. All 117 participants (male and female) were unmarried and aged between 18-32 years.

3

- (e) Identify **two** problems with using undergraduates in this study.

Two from:

- all educated
- age – all young
- similar background/similar values
- many in halls of residence – may influence views.

2

- (f) What **general conclusions** did Lea and Duck draw from their study?

Lea and Duck found that in all three groups of participants, friends shared significantly similar values. Friends were often similar in relation to the values they shared, values that were not commonly held by others. These results suggest that the importance people attach to certain values and the difficulty they may find in receiving support for these values will influence the acquaintances they select as friends.

3

(15)

[END OF SECTION B]

SECTION C

THE PSYCHOLOGY OF INDIVIDUAL DIFFERENCES

Answer BOTH questions C1 and C2 and ONE question from C3 to C5.

Answer ALL parts of the chosen question.

C1. Explain **two** of the following concepts.

Atypical behaviour

No single agreed definition; reference made to three of the following:

Statistical infrequency	
Violation of social/behavioural norms	
Maladaptiveness/Distress for the individual/family	
Continuation of behaviour	3
Reference to classification systems	1
Practical/ethical problems associated with defining/labelling	1
Examples of types of disorders; eg personality, sexual dysfunctions, schizophrenia /manic depression.	1
Two from: biomedical, humanistic and cognitive, psychodynamic, behavioural etc.	4
	(10)

Intelligence

Difficult to define. Explanation should include the ability to acquire information, think and reason and effectively adapt to the environment.	3
Different models should be referred to, eg	
Spearman's 2 Factor Model	1
Cognitive model eg Gardners' Multiple Model/Sternberg's triarchic model	1
Piaget's developmental model	1
Reference to different types of intelligence, eg spatial and verbal	1
Ways of measuring IQ and the importance of reliability and validity and/or nature/nurture.	3
	(10)

Personality

Difficult to define. Can be explained in terms of behaviour, thoughts and emotions which distinguish individuals from each other.	2
Nomothetic and idiographic mentioned.	1
Mention two approaches to be given from:	
Type/trait eg Eysenck/Cattell	
Humanistic eg Maslow/Rogers	
Phenomenological eg Kelly	
Psychodynamic eg Freud	4
Psychologists use different methods of measuring personality.	1
Inventories, such as Eysenck's introversion scale.	
OR	
Rorschach/projective tests/Kelly's personal construct grid.	2
	(10)

C2. Using **one** specific example for **each** concept chosen, explain how knowledge of this concept is applied in psychology.

Theory/reason is given correctly	2
Example given is accurately related to one of the following fields: health; crime; education; society.	1
Explanation of application is clear and accurate.	2
	(5,5)

Answer ONE question from C3 to C5.

Answer ALL parts of the chosen question.

C3. Atypical Behaviour

Thigpen and Cleckley (1954) carried out a study “A case of multiple personality”.

(a) Describe the method used by Thigpen and Cleckley in this study.

- Case study method
- Clinical interview techniques

2

(b) Describe the procedure used by Thigpen and Cleckley in this study.

Three from:

- Personality distinctions that were gained through interviewing.
- Distinctions that used psychological testing and psychometric tests.
- Information gained through using psychological EEG testing.
- The use of hypnosis.

3

(c) What evidence did the researchers find for the existence of multiple personality?

- Clearly distinguishable from other disorders, such as schizophrenia, but with some similarities to dissociative disorders.
- Eve’s behaviour showed such remarkable consistency within characters that the two researchers were persuaded she was not deliberately faking.
- Show similarities of symptoms with other multiple personality.
- Cases such as patterns of amnesia between personalities and similar casual circumstances that provoke a denial of part of the self.
- Different scores on different psychological tests.

5

(d) What have been the theoretical and practical consequences of this study?

Theoretical: Doubts about the validity of this study are caused by Eve revealing that she had other personalities before and after 1954, yet these were not detected or mentioned at the time. Doubts about MPD in general are caused by the fact that hypnosis is used as a means of identifying the problem, this is especially true of the USA, but not of other Western cultures.

and/or

Practical: There are legal and ethical implications involved in accepting MPD as a valid disorder, eg culpability.

3

(e) Describe **one** limitation of this study.

Case study – lacks scientific rigour.

2

(15)

C4. Intelligence

Rosenthal and Jacobson (1966) carried out a study, “Teacher’s expectancies: determinants of pupils IQ gains”.

- (a) What were the specific aims of the study carried out by Rosenthal and Jacobson?

Two from:

- To discover whether a person lives up to, or down to, the expectations that significant others have of them in their everyday lives.
- In the study the researchers set out to discover whether children’s performance over the course of a school year could be affected simply by the expectations that their class teacher have of them.
- To discover whether children perform better because of *high* expectations, and thus the inference being that *low* expectations would cause poorer performance.

4

- (b) Explain the method and procedure that Rosenthal and Jacobson used in this particular study.

- The study employed an experimental design, in which pupils were randomly allocated either to the experimental (treatment) or to the control (no treatment) condition.
- Pupils were randomly selected by the experimenters as bloomers and non bloomers. But the teachers were deceived into thinking that they had been tested to discern their intellectual growth.
- After eight months the pupils were retested and IQ for both groups were compared.

4

- (c) What did Rosenthal and Jacobson discover in this study?

The researchers found that for the school as a whole IQ gain was significantly greater for the “bloomers” than for the control group.

2

- (d) Describe the term “self fulfilling prophecy”.

- Living up to the expectations of others (or similar).
- A belief that things often turn out just as we predicted them because people act in such a way as to bring about our prophecy

3

- (e) Give **two** ethical problems with this study.

- Pupils were labelled unfairly.
- Pupils and teachers were not informed about the specific aims of the study.
- Other pupils labelled as non bloomers were disadvantaged.

2

(15)

C5. Personality

Forer (1949) carried out a study, "The fallacy of a personal validation: a classroom demonstration of gullibility".

(a) What were Forer's aims in his study of gullibility with his psychology students?

- He hoped to show that people have a powerful tendency to believe information given to people about their personal qualifications and attributes. Especially when they view the source as being an "expert".
- He also wished to demonstrate that people are vulnerable to agreement whether the assessment agrees with their own view of themselves, provided they believe in the expertise of the professional.

4

(b) State the method used by Forer.

Scalar questionnaire

1

(c) Describe the procedure used in this study.

- Forer used a scalar questionnaire called the Diagnostic Interest Bank.
- The class were given the test and told they would receive their personal profiles after the data had been analysed.
- One week later the students were given their results in secrecy.
- All the profiles were exactly the same. They had been "conned" by Forer into endowing experts with an unwarranted degree of insight.

4

(d) What lessons did the students learn from taking part in Forer's study?

- Forer demonstrated to his students the tendency not to be overly impressed by vague statements and to endow "experts" with an unwarranted high degree of insight.
- Personality tests are vague.

2

(e) Describe **two** reasons why the sample in this study was unrepresentative.

- The "participants" were his own young psychology students.
- May have been susceptible to Forer being their academic tutor.
- They in no way were a proper representation of age, gender, social or economic sample in the USA.

4

(15)

[END OF SECTION C]

SECTION D

DEVELOPMENTAL PSYCHOLOGY

Answer BOTH questions D1 and D2 and ONE question from D3 to D8.

Answer ALL parts of the chosen question.

D1.

(a) What is “**life span development**”?

Life span development must be explained in terms of physical, social, emotional and cognitive changes.	4
The sequential and progressive nature of lifespan development should be explained ie age related, development builds up.	2
Development stages should be named: infancy, childhood, adolescence, adulthood, old age.	1
Explanation should contain reference to nature – nurture factors which affect physical, social, emotional and/or cognitive development.	1
Maturation as a process in development should be explained.	1
Critical periods in development should be explained.	1
	10

(b) Using **one** specific example, explain how knowledge of lifespan development is applied in psychology.

Theory/research underpinning the application is given correctly.	2
Example given is accurately related to one of the following fields: health; crime; education; society.	1
Explanation of the application is clear and accurate.	2
	(5)
	(15)

D2.

(a) Explain **one** of the following concepts:

- attachment and separation
- cognitive development
- social and moral development
- adolescence and adulthood
- ageing.

Attachment and separation

Attachment must be explained in terms of social/emotional skills (bonds) in babies and young children.	2
Critical or sensitive periods in attachment should be mentioned.	1
The importance of attachment to mental health.	1
The idea of attachment as a two-way process.	1
Two examples of main attachment figures should be given.	1
The effect of separation on mental health and future relationships.	2
Some comment on the likelihood of recovery from early separation.	1
Attachment changes and develops through time.	1

Cognitive development

Cognitive development must be explained in terms of the development of thought and knowledge (intellectual skills) OR perception, attention, language, memory and thinking.	2
Cognitive development is influenced by biology and environment (social world).	1
The different stages of cognitive development ie sensorimotor, pre-operational, concrete operational and formal operational should be given.	} 4
One characteristic of each of the four named stages should be given accurately.	
Cognitive development is sequential (age related) and progressive (knowledge build up).	1
It should be explained that cognitive development generally is characterised by assimilation and accommodation, based on innate abilities, such as adaptation OR brief explanation of schema.	1
Reference to theorist, such as Vygotsky, Bruner, Piaget.	1

Social and moral development

Social development is explained in terms of how development is influenced by the social interactions and relationships which the infant, child, adolescent, adult and the old person experiences.	2
The first few months relate to forming relationships and social interactions with parents.	1
Self-recognition is the beginning of social awareness.	1
Modelling or imitation is involved in acquiring appropriate social behaviour.	2
Social development does not stop at the end of childhood but continues throughout life.	2
Explanation of Erikson's stages relating to social aspects eg adolescence's search for identity or intimacy vs isolation or disengagement in elderly.	2

OR

Moral development is explained as a process by which children develop awareness of rules for good and bad behaviour.	2
Moral development is influenced by interaction between child and main caregivers.	2
One example of moral behaviour should be given.	1
Moral development is sequential and age related.	1
Children develop appropriate feelings that accompany good and bad behaviour ie guilt, pride.	2
Two of the moral development stages of either Piaget or Kohlberg should be given correctly.	2

Adolescence and adulthood

Adolescence is explained as a period of development that occurs between childhood and adulthood, beginning at onset of puberty.	1
Both physical and psychological changes occur.	1
Physical changes should be explained in terms of bodily changes and sexual maturity.	1
Psychological changes should be explained in terms of identity formation and the need for independence.	1
Psychosocial factors such as life events, family circumstances etc affect one ending of adolescence.	1
Erikson's theory – identity vs role confusion should be explained correctly, ie identity formation, personality development	2
Importance of peer groups in adolescence development should be explained correctly.	1
Role of media in formation of ideas in adolescence should be mentioned.	1
Freud's theory of development (genital stage), could be mentioned (or any theory of relevance to development in adolescence).	1

Ageing

Ageing is explained as a period of development that occurs during late adulthood and onset of older age (senescence).	1
Both physical and cognitive decline occurs during ageing.	1
Physical changes should be explained in terms of bodily decline associated with some loss of function eg senses, immune system, physical agility etc.	1
Cognitive changes should be explained in terms of mental decline associated with some loss of function eg memory, mental agility, intelligence, test items.	1
The beginning of ageing varies from individual to individual according to factors such as health, mental agility, personality etc.	2
Erikson's ego identity vs despair should be explained accurately, ie coming to terms with one's own life and personal acceptance of death.	1
Importance of eg family support, friendship circles, leisure interests, to elderly should be explained correctly.	1
How people live their lives can affect the course of ageing.	1
An example such as staying alive, social participation, mental exercise, should be used.	1
	(10)

- (b) Explain how knowledge of this concept is applied in psychology. Use **one** specific example to support your answer.

Specific example of application is given correctly.	2
Example given is accurately related to one of the following fields: health, work, education, society.	1
Explanation of the application is clear and accurate.	2
	(5)
	(15)

Answer ONE question from D3 to D8.

Answer ALL parts of the chosen question.

D3. Life span Development

Hodges & Tizard (1989) conducted a study to investigate the long-term impact of early institutional care on children.

- (a) This study followed the progress of children over many years, from childhood to adolescence. What is the term for this type of study?

Longitudinal 1

- (b) Give a detailed description of the **methodology** used in this study.

Five in brief, or three/four in more detail, from the following:

- natural experiment
 - interviews with parents (mother) who completed the A scale questionnaire on adolescent's behaviour
 - interview with adolescents who completed questionnaire on social difficulty
 - interview with care worker/social worker who also completed the A scale questionnaire on adolescent's behaviour
 - postal questionnaire to school (B scale) on adolescent's behaviour
 - psychiatric screening
- 5

- (c) Describe the **two** groups of participants who made up the ex-institutional group.

Those who had been adopted following institutional care, and those who had returned home to their natural parent(s). 2

- (d) Which **three** types of relationship were investigated when the children reached 16 years of age?

1 mark each:

Attachment to parents/mother; sibling relationships; peers/"special friend" relationships. 3

- (e) Explain **two** conclusions that may be drawn from the findings of this study.

Two from:

- of the ex-institutionalised children, those who had been adopted formed better relationships in adolescence than those restored to parents
 - adoptive families tend to be better placed, in terms of financial and other resources, to offer good quality care, leading to better outcomes for adopted child
 - in general, negative effects of early institutional care can be compensated for by improved environment.
- 4

(15)

D4. Attachment

Schaffer and Emerson (1964) conducted a longitudinal study with babies in 60 Glasgow families.

- (a) What was the **aim** of Schaffer and Emerson's study?

Two from:

to discover how the process of attachment proceeds during the first few months; who babies attach to; what factors influence the nature of attachment etc.

2

- (b) Explain what is meant by a **longitudinal** study.

Participants are tracked/followed over a period of time, sometimes years. Data are collected from these same participants at two or more points in time to study their development.

2

- (c) Explain the method used in this study.

Three points from:

- naturalistic observation
- babies' distress was measured on separation
- interviews with mother
- during regular visits for first year + follow-up 18 months

3

- (d) Describe Schaffer and Emerson's **findings**.

Two in detail, or four in brief from:

- attachment to a specific person occurred around 7 months
- most babies formed more than one (ie multiple) attachments by 10 months
- most babies attached to fathers by 18 months
- the baby's chosen primary attachment figure was not necessarily the mother or primary caregiver
- choice of attachment figure was not related to amount of time spent with person.

4

- (e) What **conclusions** did the researchers draw from their results?

Quality of interaction/sensitive responsiveness of caregiver, ie stimulation, play, attention and response to baby's needs, are more influential in the attachment process than simple contact time with caregiver. This contradicts Bowlby's theory of monotropy, and psychoanalytic and behaviourist views that see food as the focus of attachment ("cupboard love").

4

(15)

D5. Language Development

Fernald (1985) studied infants' responses to adult speech.

- (a) What was the aim of Fernald's study?

To see if babies preferred "motherese" to normal adult speech, and/or to see if it aided baby's language development; "motherese" is adult speech addressed to baby, high-pitched, with varied and exaggerated tone.

2

- (b) Name the experimental design **and** describe the **two** conditions the babies experienced.

Repeated measures.

1

Motherese was played through a speaker on one side of the baby, and normal adult speech on the other side.

2

(3)

- (c) Describe the operant conditioning technique used in the early stages of the study, **and** explain why it was necessary to use this procedure.

The babies were firstly "taught" that if they turned their head in one direction they would hear a certain sound, and in the other direction they would hear a different sound; these sounds were the reinforcement for head-turning. This was necessary so that the baby could show that it was listening; there is no other way of telling that the baby is listening to something.

4

- (d) Why was it important that the "motherese" speech was not that of the baby's own mother?

Baby was already familiar with her and would already prefer mother's voice; the experiment would not be testing preference for motherese, but just a preference for own mother's voice.

2

- (e) Explain whether the **findings** support Fernald's view that motherese aids the child's language development.

No. They just show that babies have a preference for motherese, but there is no evidence of the child's own language development being enhanced.

2

- (f) Describe **one** criticism of this study.

One from:

- low ecological validity/lack of realism, due to artificial lab setting
- infants may prefer motherese simply because they are accustomed to hearing this kind of speech
- findings just show that babies have a preference for motherese, but there is no evidence of the child's own language development being enhanced, as Fernald claimed.

2

(15)

D6. Moral Development

Kohlberg (1963) studied moral development in children and young people.

- (a) What was Kohlberg's **aim** in this research?

To discover whether there are different types of moral reasoning at different ages/stages; or, maturational differences in moral thinking/cognition 2

- (b) Give details of the **procedure**.

Moral dilemma stories were presented to children in several age groups; in an interview they were asked to "think aloud" their responses to these problems, and state, specifically, what the main character should do, and why. 3

- (c) State the independent variable **and** its condition in this study.

IV = age of participants; conditions = four age groups. 2

- (d) Outline Kohlberg's view of moral development **and** explain how this is linked to theories of cognitive development.

Moral development is maturational/age-related, follows a sequence of stages; stages show qualitatively different types of (moral) thinking; sequence is universal. Since the focus of moral development is on the development of moral reasoning or thinking (rather than behaviour or emotions), moral development is dependent upon the maturational progress of cognitive development eg Piaget's stages. 2

(4)

- (e) Explain **two** limitations of this research.

Two from:

- artificial, unfamiliar situation, poor ecological validity/realism;
- hypothetical dilemmas, ie no personal consequences;
- focus on verbal response not actual behaviour;
- researcher subjectivity/bias in interpretation of responses;
- participants all male, therefore unrepresentative;
- gender-biased view of morality inherent in theory and dilemmas;
- culture bias in theory and dilemmas.

4

(15)

D7. Adulthood

Levinson (1978) studied development throughout adult life

- (a) Describe Levinson’s research method **and** sample.

Longitudinal study, using interviews 2
40 men, various occupations, aged 35-45 2
(4)

- (b) Levinson’s theory regards adulthood development as “maturational”. What does “maturational” mean?

Development proceeds in age-related stages, governed by an innate/biological “timetable”. 2

- (c) Levinson suggested that middle aged men experience a period of self-doubt and reappraisal of their life: what did he term this process?

Mid-life crisis, or mid-life transition. 1

- (d) Describe **two** methodological problems in this investigation.

Two from:

- interviews were retrospective, ie included events from childhood, so problems of memory, eg selective, or forgotten
- possible participant bias, eg social desirability effects
- possible researcher bias/subjectivity, in posing questions and interpreting of answers. 4

- (e) Levinson concluded there was a tendency for everyone to proceed through similar stages or “eras” in adulthood. Give **two** criticisms of this conclusion.

Two from:

- later research showed gender differences
- his oldest participant was 47, so the research tells us nothing about development in the 50s and 60s
- later researchers found no real evidence of mid-life crisis, as big changes have been found to occur at other ages too
- unlikely to apply in cultures other than western, due to different social norms and expectations, and environmental conditions. 4

(15)

D8. Ageing

Schaie and Hertzog (1983) studied intellectual abilities of adults.

- (a) Outline the **procedure** of Schaie and Hertzog's research.

Adult participants in a number of different age groups were given an IQ test every 7 years over 35 years. 2

- (b) What are the benefits of using a longitudinal study?

Participants can be compared with themselves, at different points in time/different ages/different stages in their development; participants are their own control; avoids potential confounding variable of individual differences between different groups at same point in time. 3

- (c) Describe the **two** types of intelligence that the researchers identified.

Fluid intelligence, which consists of abstract reasoning and problem-solving, including response speed and effective memory processes; it depends on nervous system functioning rather than experience. Fluid intelligence declines steadily from middle adulthood onwards. 3

Crystallised intelligence, which consists of skills and knowledge, acquired through experience and education. Adults maintain crystallised intelligence throughout early and middle adulthood. 3

(6)

- (d) Describe one **strength** and one **weakness** of this research.

One each from:

STRENGTHS

- data was both cross-sectional and longitudinal, countering problems associated with use of cross-sectional data alone
- results provide a generally optimistic view, that crystallised and possibly overall IQ are maintained for most of adulthood, countering a decrement view.

WEAKNESSES

- only measure was IQ tests; there are many limitations of IQ testing in general
- findings are culture bound, as sample was limited to US adults. 4

(15)

[END OF SECTION D]

SECTION E

COGNITIVE PSYCHOLOGY

Answer BOTH questions E1 and E2 and ONE question from E3 to E7.

Answer ALL parts of the chosen question.

E1. Explain two of the following concepts:

Accept any other suitable answer for each of these concepts.

Perception

Perception should be explained as the ability to convert sensory experiences into meaningful information. Distinction between perception and sensation, eg attention should be mentioned. Perception is an active process, involving senses, gestalten and past experience. 3

An example should be provided to highlight visual perception (or auditory perception), eg size constancy, depth perception, movement perception or figure/ground or perceptual set. 2

Perception in advertising and media could be mentioned. 1

Perception is an interaction of nature/nurture. Cultural variations may be used to highlight this process, eg culture, expectations, motivation. 2

Social and emotional factors influence what we perceive. An example should be provided. 2

(10)

Attention

A definition of attention should be provided, mentioning selectivity of processing information. An example should be provided, eg driving a car, listening to a lecture, or suitable alternative. 2

Motivation, expectation, emotion and culture all influence attention; two of these should be discussed. 2

Selective/divided/sustained attention should be discussed. 2

Reference to the “cocktail party” effect should be mentioned. 1

A model of attention should be explained, eg information processing. 3

(10)

Thinking

A definition of thinking should be given. Reference should be made to “internal representation of events”. 1

Convergent/divergent/lateral thinking should be explained and an example of each provided. 3

“Mental set” should be mentioned. 1

A Model of Thinking, such as a problem-solving approach, artificial intelligence, heuristics should be explained. 3

The interaction of language and thinking should be considered. 2

(10)

Memory

Memory should be defined as the retention of learning or experience (or similar). 1
Memory consists of three processes encoding, storage and retrieval. Each of these 3
processes should be briefly explained.

Sensory, short and long term memory should be briefly described.

OR

Different types of memory, eg semantic, episodic and procedural. 3

One model of memory should be discussed from: 2 process theory, levels of 3
processing or working memory model.

(10)

Language

Awareness of nature of language should be briefly explained in terms of 2
semanticity, productivity, displacement and symbolism.

Elaborate and restricted codes should be mentioned. 1

Linguistic functioning in humans is a complex cognitive function highly important 2
to human development.

A model of language should be discussed, eg linguistic relativity hypothesis. 2

The interaction of the relationship between language and thought should be 3
explained.

(10)

E2. Using **one** specific example for **each** concept chosen, explain how knowledge of 1
this concept is applied in psychology.

Specific example is given correctly. 2

Example is accurately related to one of the following fields: 1
health; work; education; society.

Explanation of application is clear and accurate. 2

(5,5)

(30)

Answer ONE question from E3 to E7

Answer ALL parts of the chosen question.

E3. Perception

Blakemore and Cooper (1970) studied “Development of the brain depends on the visual environment”.

(a) What was the **aim** of the study?

To investigate environmental effects on perceptual ability. 2

(b) Describe the **subjects**?

They used kittens raised from birth. 1

(c) Explain the **procedure** used in this study.

Kittens were raised from birth in darkness. For five hours each day they were put into either vertically or horizontally striped drum. Sensory deprivation occurred so kittens could only see either vertical or horizontal stimuli. At five months kittens were tested for line recognition. 4

(d) What **conclusions** can be drawn from the study?

The study implies that although some aspects of perception may be innate, active environmental stimulation of normal patterned light is necessary for normal perceptual development in animals. 4

(e) Explain **two** criticisms of this study.

Two from:

Major ethical problems ie possible permanent damage to eyes/brain.

Animals cannot report their subjective experiences, we can only infer from their behaviour.

Animal perception and development may be qualitatively different to that of humans. 4

(15)

E4. Attention

Treisman (1964) investigated “verbal cues, language and meaning in selective attention”.

(a) Explain the **aim** of the study.

To investigate how the meaning of items in sensory channels may affect the selection mechanism.

2

(b) Explain what is meant by “selective attention” and give an example.

Process by which we give attention to information that is relevant/salient, whilst “filtering out” unnecessary/non-salient information.

2

Example may come from everyday life

1

(3)

(c) What technique did the researcher use **and** how was this extended?

- The researcher used an experimental technique, known as shadowing/dichotic listening, involving two different messages, one to each ear.
- Treisman extended this technique by varying Cherry (1953). A change was made to both the kind of material input to the unattended ear and its relationship to the material input to the attended ear.

4

(d) Describe the **results** of the study.

Two marks for a poorly explained answer, four marks for a developed answer.

The results suggest that the meaning of the message can be recognised prior to the processing/filtering stage – at which stage focussed attention has its effect.

4

(e) How do these findings contradict Broadbent’s model of attention?

This contradicted Broadbent’s assumption that unattended channels cannot be processed for meaning. In other words they can.

2

(15)

E5. Thinking

Samuel and Bryant (1984) studied “Asking only one question in the conservation experiment”.

- (a) Who were the **participants** in this study?

252 children aged between 5 and 8 years. 2

- (b) State the research method **and** design used in this study.

Laboratory experiment
Independent measures 2

- (c) What is meant by **demand characteristics**?

A demand characteristic is a cue or a set of cues that inform the participant what is expected of them. 2

- (d) How might demand characteristics apply in previous studies of conservation, such as Piaget’s?

Demand characteristic may apply in previous studies as the children may have thought the experimenter changed something, otherwise why ask the question a second time.

This was revealed in the question about changes. 3

- (e) What were the **conclusions** of this study?

One mark for a poorly explained point. Two for a well explained answer.

- The questions asked affect the way in which children demonstrate their conversation skills.
- Children can conserve at an earlier age than thought by Piaget. 4

- (f) What important aspect of research design does this study highlight?

Minor alterations to variables can affect the outcome of the research, the way questions are worded for example. 2

(15)

E6. Memory

Loftus and Palmer (1974) investigated “Reconstruction of automobile destruction: an example of the interaction between language and memory”.

(a) What was the **aim** of the research?

- To discover whether leading questions can affect what is remembered.

OR

- To discover whether eyewitnesses’ testimony can be influenced by the way they are questioned.

2

(b) Provide an overview of the **procedure** used in this study.

45 students were shown film clips of traffic accidents and asked to write a description of the events. They were then asked questions – eg how fast were the vehicles going when the accidents occurred. Control group were not asked the speed of the vehicle.

3

(c) Explain **two** of the variables that were controlled in the study.

Two from:

- age of participants – standardised
- use of video – same images used on each viewing
- same questions used (except critical word).

4

(d) How can the findings of this study be interpreted in relation to memory?

Wording may have distorted memory
Evidence for reconstruction of memory

2

(e) Describe two **limitations** of the study.

Two from:

- demand characteristics – students may have worked out what was expected
- laboratory experiment lacks realism
- students are a biased sample.

4

(15)

E7. Language

Gardner and Gardner (1969) researched “Teaching sign language to a chimpanzee”.

(a) Why were chimpanzees used in this research?

Two from:

- they are considered to be intelligent and sociable
- they have similar gestures to ASL
- to discover whether primates other than humans have language ability. 2

(b) Why was sign language used rather than vocalised sounds?

- Chimps do not have the appropriate vocal apparatus
- chimps use a variety of gestures similar to ASL. 2

(c) Explain the **procedure** adopted in this study.

A chimp ‘Washoe’ was selected and lived with a human helper during all waking hours. All helpers were fluent in ASL. Operant conditioning techniques were used to train Washoe in ASL. She was rewarded with play, smiles and clapping. Full records were kept. They introduced a system of observation by three different researchers for 15 days. 4

(d) State the **results** of the study.

- Washoe combined signs suggesting she did acquire some language skills.
- Grammar did not develop to the same degree as semanticity, displacement, and productivity
- Language skills did not develop beyond those of a 2/3 year old child. 6

(e) Explain **two** ethical issues raised as a result of this research.

- the Gardners formed bonds with Washoe. There are ethical questions associated with breaking of such bonds at the end of the study
- if chimps can use language then questions are raised as to what rights they have. 4

(15)

[END OF SECTION E]

SECTION F

BIOLOGICAL PSYCHOLOGY

Answer **BOTH** questions F1 and F2 and **ONE** question from F3 to F6.

Answer **ALL** parts of the chosen question.

F1. Explain **two** of the following concepts:

- physiological basis of behaviour
- emotion
- sleep and dream states
- stress.

Physiological basis of behaviour

- Physiological basis of behaviour must be explained as the inter relationship between body, mind and behaviour ie how bodily (physiological) states influence/determine behaviour. 1
 - Both the nervous system and the endocrine system should be named as the two bodily systems, which are responsible for behaviour(s). 1
 - Nervous system organisation should be explained as consisting of the Central Nervous System and the Peripheral Nervous System. 1
 - Each of the above systems should be further subdivided and explained eg CNS is composed of brain and spinal cord, encased in bone. Peripheral nervous system consists of autonomic and somatic systems. ANS consists of sympathetic and parasympathetic branches. 3
 - Reference should be made to structure and function of the brain and a suitable example provided eg four lobes of the brain identified with functions explained, **or** structures identified with functional explanation eg hypothalamus – hormonal control (any other suitable structure/function should be credited). 2
 - Neural and synaptic activity should be explained. 2
Labelled diagrams must be used throughout.
- (10)

Emotion

- A suitable definition of emotions should be given – reference should be made to feelings and behaviours. Emotions are subjective (personal) experiences. 2
 - Emotions consist of an interaction between physiological and psychological factors, similar patterns of physiological arousal are found across all emotions, eg increased heart beat, increase in muscle tension. 1
 - ANS activity may be discussed and reference made to sympathetic/parasympathetic and adrenal functioning. **Alternatively**, students may discuss emotional measurements eg GSR (polygraph/lie detector test), personality testing or a suitable alternative. It should be noted that emotional testing is difficult. 3
 - Psychological models of emotion should be discussed with emphasis being placed on psychological/physiological interaction. **Two** from any model shown should be credited examples from: James/Lange, Cannon/Bard, Schachter/Singer, Lazarus, Social theories or other relevant theory. 4
- (10)

Sleep and dream states

- Sleep may have restorative and/or repair function. 1
 - However the functions of sleep and dreaming are poorly understood. Physiologically the body may rest but much activity is evident. 2
 - Research involves sleep deprivation studies; psychological effects include being uncomfortable, impairment of information processing, confusion, irritability, misperception, prolonged sleep deprivation may induce depersonalisation and paranoia. 2
 - Sleep involves five distinct stages/cyclical patterns. Stages 1-4 (NREM) each involving deeper sleep than the one before. Stage 5 involves REM (rapid eye movement). It is generally agreed this stage involves dreaming. 3
 - Models/theories of dreaming should be explained. An example of **one** theory should be given eg psychoanalytic, problem solving, reprogramming, activation synthesis, reverse learning. 2
- Accredit alternate responses where appropriate. (10)

Stress

- Stress should be explained as psychological and physiological reactions to situations where we know we are in conflict or threatened beyond our perceived ability to cope. 2
 - It should be explained that certain bodily changes occur as a result of this process. **Two** of the following changes could be given as examples: increase in respiration rate; increase in heart rate; increase in blood pressure; increase in muscle tension; *inhibition* of digestion; dilation of pupils; release of sugar from liver; or other relevant physiological change. **Alternatively**, the role of ANS may be discussed. 2
 - Sources of psychological stress should be included. Examples of **two** of the following should be explained: life changes, daily hassles, adverse environmental conditions, conflict within the individual or personal stresses. 2
 - Mediators play an important role in how stress is dealt with – personality, social support or perceived control should be discussed. 2
 - Long term health effects of stress include cancer, gastro-intestinal and cardiovascular disorders. **One** of these should be discussed. 2
- (10)

F2. Using at least **one** specific example for **each** concept chosen, explain how knowledge of this concept can be applied in psychology.

- Theory/research is given correctly. 2
 - Example is related to one of the fields. 1
 - Explanation of application is clear and accurate. 2
- (5,5)

(30)

Answer ONE question from F3 to F6.

Answer ALL parts of the chosen question.

F3. Physiological basis of behaviour

Sperry (1968) carried out a study into hemispheric disconnection and unity in conscious awareness.

(a) What was the **aim** of the study?

Two marks:

To investigate the:

behavioural, neurological and psychological consequences of surgery in which the two hemispheres are disconnected from each other by severing the corpus callosum.

Three marks:

He wanted to discover whether each hemisphere:

- has slightly different function
- possesses an independent stream of conscious awareness
- has its own set of memories which are inaccessible to the other.

5

(b) State the **method** used.

A **natural** experiment (one mark only for stating experiment).

Also permissible: case study.

2

(c) Describe the **procedure** used in this study.

Since each hemisphere receives information from the opposite side of the body the capabilities of each side were tested by:

Whilst seated in front of a projector screen with hands free the participant is presented with objects to feel, but cannot see. The participant is asked to gaze at the screen. Visual stimuli are then back projected to the left or right visual field, for about 1/10th second only. The participant asked to identify it, either verbally or in writing, or by selecting it from the actual objects.

4

(d) What were the **results** of the study?

Two explained from:

- Objects shown to a visual field are only recognised again if presented to the same visual field, not the other.
- Objects presented to the right visual field can be named verbally and in writing indicating the presence of speech comprehension and production in the left hemisphere.
- Objects presented to the left visual field cannot be named verbally or in writing, but can be identified through pointing, or selecting the object, indicating some language comprehension in the right hemisphere but not production of speech or writing; if asked to respond verbally, typically the participant suggests there is nothing to see.

4

(15)

F4. Emotion

Laird (1974) investigated the effect facial expression had on the emotional experience.

(a) What was the **aim** of the study?

To evaluate the role of expressive behaviour as a determinant of the quality of emotional experience. 2

(b) Which **experimental design** did Laird use?

Independent groups design 1

(c) Describe the **procedure** used.

- Bogus electrodes were attached to the facial muscles of 32 students (as if to measure physiological responses).
- The participants were instructed to raise their eyebrows, contract the muscles of their forehead and make other facial expressions without realising the emotional significance of what they were doing.
- They were unaware they were ‘smiling’.
- Cartoon slides were then projected onto a screen and the participants asked to rate how funny they found them. Pictures of the Ku Klux Klan and others were also shown.
- They were also asked to rate their own emotions. 5

(d) What **conclusions** were drawn from the study?

The results suggested that manipulation of the facial muscles produced a change in subjective emotional experience, through facial feedback. These changes occur in situations of ambiguity and when participants had expectations of what their emotions should have been. Suggests “we are happy because we smile” rather than vice versa, ie some support for the James-Lange theory. 3

(e) Explain **two** criticisms of the study.

Two explained from:

- ethical problems associated with deception
- demand characteristics of the situation
- participant variables 4

(15)

F5. Sleep and dream states

Dement and Kleitman (1957) carried out studies on participants whilst they were asleep.

- (a) What was the **aim** of the study?

To investigate the relationship between REM (rapid eye movement) and the occurrence of dreaming. 2

- (b) Which **method** was used?

Laboratory experiment 1

- (c) Explain the **procedure** used in this study.

One mark for each of the following:

Participants were instructed not to drink alcohol/caffeine beverages prior to experiment.

Participants arrived prior to their normal sleeping time and slept overnight in the lab.

Two marks:

Researchers attached electrodes near the eyes of the participants to measure corneo retinal potential fields; electrodes were also attached to the scalp to record brain waves, which indicated depth of sleep.

One mark:

Participants were wakened at various intervals during the night to test their dream recall. 5

- (d) How did REM and NREM awakenings differ with respect to reports of dreaming?

More frequent reports of dreaming occur after REM than NREM awakenings. 1

- (e) Explain **one** variable that was controlled by the researchers in their study.

One from:

- Participants were not told on awakening whether eyes had been moving or not.
- Participants only recorded as having dreamed if they were able to relate a coherent and detailed description of the dream.
- Experimenter present was never aware of the type of dream from which a participant was wakening.
- Experimenter did not communicate with the participant during the night. 2

- (f) Explain **two** criticisms of the study.

Two from:

- participant sample was small
- artificial environment – laboratory
- constantly being awakened may have disrupted normal sleep patterns
- self report could be inaccurate. 4

(15)

F6. Stress

Friedman and Rosenman (1959) studied characteristics associated with coronary heart disease.

- (a) What was the **aim** of this study?

Two marks for a well explained answer, one for weaker answer.

To investigate the association of specific behavioural patterns (Type A personality) with blood and cardiovascular problems. 2

- (b) What type of research **method** did Friedman and Rosenman use?

Longitudinal observational study 2

- (c) Give two possible **confounding variables** that had to be controlled in this study.

Two from the following:

- smoking
- high cholesterol level
- poor diet
- lack of exercise
- poor health education
- history of CHD within the family. 2

- (d) How did Friedman and Rosenman control for these variables?

All participants underwent an interview prior to entering the study. Adjustments were made for traditional risk factors. 2

- (e) People with type A personality characteristics were found to be more at risk from coronary heart disease than type B personalities.

Explain the differences between **type A** and **type B** personality characteristics.

Type A

Three from (one mark each):

- chronic sense of time urgency
- excessive competitive drive
- aggressive and possibly hostile with others
- sets deadlines
- cannot bear to wait his/her turn
- does several things at once
- insecure about status
- has 'hurry sickness'

plus type B personality is less driven and relatively free of such pressures. They tend not to demonstrate aggressiveness or hostility. 5

(f) Give **two** criticisms associated with this study.

Two from:

- the study on involved men
- type A people do not necessarily develop CHD
- it has been argued that there is no difference in CHD between type As and type Bs
- structured interviews may have methodological problems
- type A behaviour may be a response to, rather than a cause of, heightened physiological reactivity.

2

(15)

[END OF SECTION F]

[END OF MARKING INSTRUCTIONS]