

**[C071/SQP216]**

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Higher  
Psychology  
Specimen Marking Instructions

NATIONAL  
QUALIFICATIONS

There are six Sections in this paper:

Section A—Approaches and Methods in Psychology	Pages	2–3
Section B—Social Psychology	Pages	4–10
Section C—The Psychology of Individual Differences	Pages	11–14
Section D—Developmental Psychology	Pages	15–22
Section E—Cognitive Psychology	Pages	23–26
Section F—Biological Psychology	Pages	27–32

Each Section is worth 45 marks.

Candidates should answer **all** of Section A and a further **two** sections from B, C, D, E and F.

## SECTION A

### APPROACHES AND METHODS IN PSYCHOLOGY

Answer ALL questions in this Section.

A1. (a) *Describe and compare the features of the case study and interview methods of research.*

**3 from:**

Case study:

Long term and individual study of an individual or small group.

Often applied to unusual/difficult examples of behaviour.

Often retrospective.

Involves detailed questioning.

3

**3 from:**

Interview:

Can be structured/semi-structured/unstructured.

**Two from:** (1 mark each)

Individualised design.

Involves direct detailed questioning of participant.

Often used for attitudes/opinions.

3

**Comparison** of features of each method eg involves questioning of participants. **(2 marks for each comparison)**

4

**(10)**

(b) *Describe in full both the psychoanalytic and cognitive approaches in psychology.*

**Cognitive**

Definition of the cognitive approach—mind as an information processor, actively processing incoming sensory information (or similar).

2

Computer analogy explained.

2

Internal mediators explained (all 5 briefly or 2 in depth).

Language—agreed set of symbols that enable us to convey meaning.

Memory—mental function by which we can retain and retrieve information about events that have happened in the past.

Thinking—mental manipulation of ideas, memories, symbols etc.

Attention—ability to focus on selected features of the environment.

Perception—process by which sensory information from the environment is integrated and interpreted.

5

Example provided from one of the above (everyday example or research example) **or** description of schema/Piaget/Beck etc.

1

**(10)**

**Psychoanalytic**

Definition of approach—explains behaviour in terms of unconscious processes and unresolved conflicts from childhood.

2

Tri-partite mind should be explained:

Id—first of three parts of personality to occur, it is present at birth. Source of psychic energy and demands immediate gratification. “Pleasure principle”.

1

Ego—second part of personality to appear. Its function is to find realistic ways of satisfying the Id’s demands. Mediates between demands of the Id and superego. “Reality principle”.

1

Superego—third part of personality to appear. It is a product of socialisation works at level of “morality principle”.

1

**A1. (continued)**

Ego deals with demands of id and superego by using defence mechanisms—these deny or distort reality in such a way that we are protected from anxiety that would result from unresolved conflicts. 1

An example of a defence mechanism should be provided eg—denial, repression, displacement, rationalisation. 1

**The final 3 marks should be awarded holistically.**

5 stages of psychosexual development may be explained:

Oral

Anal

Phallic—including Oedipus complex

Latency

Genital

**OR**

Examples from Freudian techniques such as analysis of slips of the tongue, dream analysis and free association may be explained. 3  
**(10)**

A psychologist wished to test the claim that listening to music improves memory recall. She used a laboratory experiment with repeated measure design in her research.

**A2. (a)** State **one** advantage of using a laboratory experiment in this situation.

One from: **(2 marks for explained answer, 1 for poor explanation)**

Control of variables.

May be repeated.

Can establish cause and effect. 2

**(b)** Explain how the psychologist would conduct a repeated measures design for this experiment.

One group of participants. 1

Split into two groups—one experimental, one control. 1

Experimental exposed to IV, control not exposed to IV. 1

Groups swap over—experimental becomes control and vice-versa. 1

Counterbalancing may be used to control order effects. 1

**(5)**

**(c)** Explain what is meant by the experimental hypothesis.

Testable statement made at the beginning of an investigation that serves as a prediction or explanation of results. 1

Predicts IV will have a direct effect on DV. 1

**(2)**

**(d)** State an experimental hypothesis for this experiment.

Listening to music will improve memory recall. 2

**(e)** Identify the **independent** and **dependent** variables for this experiment.

Independent—Listening to music. 2

Dependent—memory recall. 2

**Alternative suitable answers should be credited as appropriate.**

**Total 45**

[END OF SECTION A]

## SECTION B

### SOCIAL PSYCHOLOGY

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

Answer ALL parts of the chosen question.

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

#### **Attitude**

**Attitude** could be explained as a relative permanent disposition toward 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. 2

Conformity could be mentioned and briefly explained in terms of group norms. 3

Obedience should be mentioned in terms of how far individuals will comply and why. 3

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

#### **Altruism and Aggression**

**Altruism** could be explained as being demonstrated in unselfish behaviour whereas **aggression** is considered as anti-social. 2

Factors influencing altruism could be mentioned. Bystander intervention could be mentioned. 2

Social Learning Theory of aggressive behaviour could be briefly explained in terms of how aggression can be learned through models. 3

The relationship between frustration and aggression could be mentioned. 1

Cross cultural and/or animal perspectives on aggressive behaviour should be mentioned in relation to nature-nurture debate. 2

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

**B1. (continued)**

**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
- The factors which influence interpersonal attraction, could be explained briefly, eg proximity, exposure, familiarity. 3
- Models of interpersonal attraction could be mentioned eg matching hypothesis/exchange theory or other alternative appropriate theory. 2
- 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. 1
- Example given is accurately related to one of the following fields: health, work, education and society. 1
- Explanation of application is clear and accurate. 3
- (5,5)**
- (30)**

**Answer ONE question from B3–B7.**

**B3. Attitude**

*Sherif, M. (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 intergroup conflict – a conflict of interest which exists between two groups. Realistic Conflict Theory states that competition between two groups who share the same goal often results in hostility between the groups. This creates hostile attitudes towards each other.

Sherif (1956) attempted in this study to see if they could take a group of people without any hostile attitudes towards each other, divide them into groups, create conflict in the groups through introducing competition and thereby create ethnocentric attitudes and behaviour. 2

**B3. (continued)**

- (b) *The researchers attempted to produce inter-group conflict. Explain how this was attempted.*

22 white middle-class Protestant boys who were regarded as “well rounded” individuals spent time together at an isolated summer camp. The camp counsellors were Sherif and his colleagues. None of the boys knew one another before the experiment. They were unaware that they were part of an experiment on group relations.

In the **first** phase of the experiment, Sherif observed the development of group structure. At the outset, the boys were housed in one large bunkhouse where they were able to choose their own “buddies”. After a few days they divided the boys into two groups and took care to separate “best friends” into different groups.

The boys were given a range of challenging activities including hikes and campouts, and athletics and sports. In each group the boys divided up the tasks and organised duties. Leaders and lieutenants emerged, and each group developed its own jargon, special jokes, secrets and special ways of performing tasks. They maintained social control through ridicule, threats and ostracism. Group identity was enhanced by the fact that each group selected a symbol and put it on baseball caps and T-shirts. The groups called themselves “The Eagles” and “The Rattlers”.

Sherif’s prediction had been that “. . . when two groups have conflicting aims, their members will become hostile to each other even though the groups are composed of normal well adjusted individuals.”

In the **second** phase of the study, the researchers introduced conflict through games. The boys were tested on physical and sporting prowess. There were prizes available for the winning group. The losers would receive nothing.

6

- (c) *What evidence of inter-group hostility was found by **Sherif**?*

The games started in good spirits. The boys quickly however began to call their rivals “stinkers”, “sneaks” and “cheaters”. The boys refused contact with the opposing group. They gave negative ratings to the boys in the other group. During this period solidarity increased within the group. Name calling, scuffles and “raids” became the pattern of behaviour.

Therefore, Sherif’s prediction that “. . . when two groups have conflicting aims, their members will become hostile to each other even though the groups are composed of normal adjusted individuals,” was supported.

4

- (d) ***Sherif** in the **third** and final phase of the experiment attempted to reduce inter-group rivalry. How did he try to do this?*

In the **third** phase the researchers established superordinate goals for the two groups. They created a series of urgent and natural situations, which could only be solved by cooperative action. For example by interrupting the water supply, and by making the camp truck breakdown on an outing. The boys had to resolve the latter crisis by pulling the truck. The boys developed new friendships in the opposing groups as they worked through these crises. Sherif’s comments that by the end of the camp the groups were “actively seeking opportunities to mingle, to entertain and to ‘treat’ each other.”

3

(15)

OR

**B4. Social pressure**

*Milgram, S. (1963) undertook an investigation into obedience.*

- (a) *Explain the main aim of **Milgram’s** study.*

Milgram wished to test the idea that Nazism was the product of a defect in the German character ie a readiness to obey authority or to see if people would obey an authority figure.

1

**B4. (continued)**

(b) *Explain the procedure **Milgram** used to investigate this.*

Participants between 20–50 years of age, from all walks of life, replied to a newspaper advertisement for a study of memory. Each participant was paid immediately on attending the laboratory \$4.50.

Participants were introduced to the experimenter a Mr Williams and to Mr Wallace (the confederate). The participants believed that the latter was an accountant in his 50s. Each of the participants was told that the experiment was concerned with the effects of punishment on learning. All participants drew lots, but these were arranged so that the confederate was the learner.

The “teacher” observed the learner being secured by straps into a chair, given a mild electric shock. Both were told of the learners slight heart condition.

Teacher was shown the electric shock generator (15–450 volts), marked “slight, moderate, strong, very strong, intense, intense to extreme, danger, severe shock, XXX”. Teacher is given a simple shock.

The teacher is instructed to teach word pairs to the learner and told to move one switch higher on the shock generator of every incorrect response.

The teacher heard tape-recorded grunts, screams, objections and, ominous silence after 330 volts (voice feedback variation).

4 verbal prods were used by the experimenter: “Please continue”, “The experiment requires that you continue”, “It’s absolutely essential that you continue”, “You have no other choice – you must go on”.

After the experiment (when participants refused to continue or administered the maximum shock four time) full debriefing was given.

6

(c) *What were the results of **Milgram’s** study?*

Results: Approximately 65% of participants administered shocks up to and including 450 volts. All went up to 300 volts (voice feedback variation). Psychiatrists had predicted that less than 1% of participants would administer the highest voltage. Participants trembled, sweated, broke into nervous laughter, or verbally attacked the experimenter. Three participants suffered seizures.

3

(d) *State **three** of the methodological concerns about **Milgram’s** study.*

Representative sample? Milgram studied 636 participants from the New Haven area. The participants who went to 450 volts tended to be more authoritarian, people who volunteer for experiments tend to be less authoritarian.

Gender bias? Although Milgram used mainly male participants, the 40 females in one of his experiments produced the same results as men.

Cross-cultural validity? Reproducing the study in different countries produced obedience rates ranging from 16% (Australian female students) to 92% (members of the Dutch population). Such studies tended to only partially replicate Milgram’s procedure.

Ecological validity? There are obvious differences between Nazi Germany and Milgram’s laboratory. It is argued that Milgram’s findings do not generalise well to real life. However, Hofling et al (1966) has shown that high levels of obedience can be found in the real life.

3

(e) *State **two** of the ethical concerns about **Milgram’s** study.*

Protection of participants—Baumrind (1964) has argued that Milgram did not protect participants from stress and emotional conflict. Milgram argued that the outcome of stress was not anticipated, and not therefore an intentional outcome.

Deception – Milgram deceived his participants over the nature of the study. Aronson (1988) argues that he could do nothing else if he wanted to achieve valid results. Milgram did debrief his participants, and 84% were glad or very glad to have participated. 80% said that they felt more experiments of this kind should be conducted.

2

(15)

## B5. Altruism and Aggression

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

- (a) Explain the main aim of **Bandura et al'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) Explain the procedure **Bandura et al** 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.

6

- (c) What were the results of **Bandura et al's** study?

(should explain 2 of these)

The researchers found:

The children who saw the aggressive model made more aggressive acts than the children who saw the non-aggressive model.

Boys made more aggressive acts than girls.

The boys in the aggressive conditions showed more aggression if the model was male than if the model was female.

The girls in the aggressive condition also showed more physical aggression if the model was male but more verbal aggression if the model was female.

The exception to this general pattern was the observation of how often they punched Bobo, and in this case the effects of gender were reversed.

4

- (d) What conclusion did **Bandura et al's** study reach regarding imitation and aggression?

Aggressive behaviours are learned through observation and imitation of aggressive models.

1

- (e) What ethical problems are associated with this study?

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

2

(15)

## B6. Leadership

**Lewin, K. Lippitt, R. and White, P.K. (1939)** investigated a variety of leadership styles, and their effect on a group of people.

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

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

1

- (b) *Explain how Lewin, Lippitt and White carried out their experiment.*

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 the boys for their work, but did not explain their comment, 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 experiment?*

The boys with an autocratic leader became 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 they made were 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 other, 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 things 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) *Do you think that the leader's personality may have influenced the boys behaviour?*

No. The leader was changed every seven weeks and instructed to adopt one of the other kinds of leadership styles. Thus, each group of boys was exposed to only one leadership style which was enacted by three different leaders. This was meant to ensure that the boys' behaviour could be attributed to the leadership style they were exposed to, rather than the leader's personality traits.

2

- (e) *What did Lewin, Lippitt and White conclude from their research?*

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

(15)

OR

**B7. Person/Social perception**

**Murstein, B.Ĵ. (1972)** undertook a study called “Physical attractiveness and marital choice”.

(a) *What was the main aim of **Murstein’s** study?*

Murstein attempted to test the idea that individuals who are willing to become romantically involved with each other will be fairly closely matched in their ability to reward one another eg in attractiveness (the matching hypothesis/phenomenon or similarity hypothesis).

2

(b) *Explain the procedure **Murstein** used to conduct the study.*

Murstein took photographs, first of 99 engaged or steady couples, then a separate sample of 98. Judges rated the photographs for physical attractiveness on a five-point scale without knowing who the couples were (“who belonged to whom”). The couples had to rate their own and their partners physical attractiveness.

6

(c) *What were the results of **Murstein’s** study?*

The judges ratings strongly supported the matching hypothesis – partners received very similar ratings and these were significantly more alike than the same ratings given to “random couples”. (ie The actual couples randomly sorted into couples to form a control group.

How the partners rated themselves (self concept for attractiveness) was significantly more similar than self ratings for random couples, thus also supporting the matching hypothesis.

4

(d) *What did **Murstein** conclude from the results of the study?*

Murstein concluded that “individuals with equal market value for physical attractiveness are more likely to associate in an intimate relationship such as premarital engagement, than individuals with disparate values.”

or similar

3

**(15)**

[END OF SECTION B]

## SECTION C

### THE PSYCHOLOGY OF INDIVIDUAL DIFFERENCES

Answer BOTH question C1 and C2 and ONE question for C3–C5.

Answer ALL parts of chosen questions.

C1. Explain *two* of the following concepts.

#### 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: 4

Type/trait eg Eysenck/Cattell

Humanistic eg Maslow/Rogers

Phenomenological eg Kelly

Psychodynamic eg Freud

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)

#### 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)

- C2.** Using at least **one** specific example for **each** concept chosen, explain how knowledge of this concept is applied in psychology.
- Specific example of the application is given correctly. 1
- 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
- Further application is given correctly and is accurately related to one of the following fields: health; crime; education; society. 1
- Any other relevant area. (5,5)

**Answer ONE question from C3–C5.**

**C3. Atypical behaviour**

**“On being sane in insane places”** ( Rosenhan, D. L. 1973)

(a) *What were the basic findings of Rosenhan’s study?*

By faking a single symptom of mental disorder, sane people could be admitted to a psychiatric ward and then be diagnosed as sane, it means that sanity can be distinguished even in an insane context. However, the pseudopatients were **not** detected, despite behaving perfectly normally once admitted, then it would strongly suggest that a diagnosis of MENTAL DISORDER made in that context is unreliable.

All pseudopatients behaved normally. Not one of the pseudopatients were detected.

All but one was diagnosed as schizophrenic and when discharged, as schizophrenic in remission.

Despite none of the clinicians recognising the pseudopatients as sane, many of the patients declared them to be frauds.

After diagnosis, many normal, everyday behaviours were interpreted as manifestations of schizophrenics eg “excessive note taking”.

Once people are labelled abnormal, all of their behaviours and characteristics are coloured by that label.

Distortion of behaviour all (normal) behaviour became interpreted in the light of the “label” of “schizophrenia”.

eg – pacing the corridor out of boredom – this was seen as nervous debility, again implying that it was a symptom.

Powerlessness and depersonalisation – was produced in the institution through the lack of rights, constructive activity, choice and privacy, plus frequent verbal and physical abuse from staff. 5

(b) *Give two criticisms of this study (either ethics or methodology).*

Deception by the pseudopatients.

Subjective nature of the study in which the information was gleaned by the pseudopatients own observations this could lead to observer bias.

Deceiving the real patients and using medical resources under false pretences. Many would consider this to be illegal and certainly unethical. 4

(c) *What have been the practical and social consequences of **Rosenhan's** study?*

Questioning the validity and reliability with the diagnosis and classification of mental disorders.

The consequences to the individual of stereotyping and labelling and how society treats that person.

An improvement of public attitudes towards people who are mentally ill.

More empowerment to those who have suffered mental illness.

Proliferation of community health facilities, crisis intervention centres, behaviour therapies which avoid psychiatric labels.

The increased sensitivity of mental health workers and researchers to the catch 22 position of the psychiatric patients.

Sane and insane are specific legal terms and should not be used in psychiatry.

5

(d) *What diagnosis was made of the pseudo-patients on release?*

Suffering from "schizophrenia in remission".

1

**(15)**

#### **C4. Intelligence**

*"A nation of morons"* Gould, S. J. (1982)

(a) *In the tests which are described in **Gould's** article – give **three** examples of Cultural bias.*

Some of the pictorial images used was material that certain people would have never seen.

The language used was English many people could not speak, or had limited use of the language.

Use of American folk lore characters which many immigrants in USA would be unfamiliar with.

6

(b) *What were the aims of **Gould's** article in relation to Yerkes's original study?*

To point out the major flaws in the use of IQ testing.

The difficulty in defining intelligence.

Cultural bias can affect results.

Discriminatory nature of IQ testing.

3

(c) *What procedures did Yerkes and his colleagues use in the original 1915 study?*

Yerke's used two basic tests.

(a) Army Alpha test

(b) Army Beta test

Army Alpha test comprised of reading and writing tests.

Army Beta test comprised only of pictorial images.

6

**(15)**

**C5. Personality**

*“The fallacy of personal validation: a classroom demonstration of gullibility” Forer, B. R. (1949)*

(a) *Outline the main aims of Forer’s research.*

To demonstrate the tendency for individuals to accept other people’s account of their personality, when they view the source as reliable.

People like to be told who they are especially how good they are from such people as teachers, professionals etc.

3

(b) *Explain two reasons why deception was used by Forer.*

To show his students how easy it was to dupe them regarding their own personal validation.

He found it to be the most effective way of teaching his students to avoid accepting vague comments made by so called experts – and not to be impressed by so called expert professionals.

2

(c) *How did Forer achieve his deception?*

Students were duped into believing that they were taking part in a valid test.

All students received the same results.

Students were told that the personality profile they received was based on test results.

Their expressed need for confidentiality ensured the students did not share their profiles.

4

(d) *Give three reasons why the participants in Forer’s study were not a representative sample of the population.*

The students were not mature adults – they were young and impressionable.

They were all his own psychology students.

The fact they were in an academic institution lent credence to the whole experiment.

The results could have been led by demand characteristics.

6

**(15)**

[END OF SECTION C]

SECTION D

DEVELOPMENTAL PSYCHOLOGY

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

Answer ALL parts of the chosen question.

D1. (a) *What is “lifespan development”?*

Lifespan development must be explained in terms of physical, social, emotional and cognitive changes.

The sequential and progressive nature of lifespan development should be explained ie age related, development builds up.

Developmental stages should be named: infancy, childhood, adolescence, adulthood, old age.

Explanation should contain reference to nature – nurture factors which effect physical, social, emotional and/or cognitive development.

Maturation as a process in development should be explained.

Critical periods in development should be explained.

10

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

Specific example of the application is given correctly.

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

Explanation of the application is clear and accurate.

Further application is given correctly and is accurately related to one of the following fields: health; crime; education; society.

Any other relevant area.

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 the development of social/emotional skills (bonds) in babies and young children.

Critical or sensitive periods in attachment should be mentioned.

The importance of attachment to mental health.

The idea of attachment as a two-way process.

Two examples of main attachment figures should be given.

The effect of separation on mental health and future relationships.

Some comment on the likelihood of recovery from early separation.

Attachment changes and develops through time.

## **D2. (a) (continued)**

### **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.

Cognitive development is influenced by biology and environment (social world).

The different stages of cognitive development ie sensorimotor, pre-operational, concrete operational and formal operational should be given.

One characteristic of each of the four named stages should be given accurately.

Cognitive development is sequential (age related) and progressive (knowledge build up).

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.

Reference to theorist, such as Vygotsky, Bruner, Piaget.

### **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.

The first few months relate to forming relationships and social interactions with parents. Self-recognition is the beginning of social awareness.

Modelling or imitation is involved in acquiring appropriate social behaviour.

Social development does not stop at childhood but continues throughout life.

Explanation of Erikson's stages relating to social aspects eg adolescence's search for identity or intimacy vs isolation or disengagement in elderly.

**OR**

Moral development is explained as a process by which children develop awareness of rules for good and bad behaviour.

Moral development is influenced by interaction between child and main caregivers.

One example of moral behaviour should be given.

Moral development is sequential and age related.

Children develop appropriate feelings that accompany good and bad behaviour, ie guilt, pride.

Two of the moral development stages of either Piaget or Kohlberg should be given correctly.

### **Adolescence and Adulthood**

Adolescence is explained as a period of development that occurs between childhood and adulthood, beginning at onset of puberty.

Both physical and psychological changes occur.

Physical changes should be explained in terms of bodily changes and sexual maturity.

Psychological changes should be explained in terms of identity formation and the need for independence.

Psychosocial factors such as life events, family circumstances etc affect one ending of adolescence.

Erikson's theory – identity vs role confusion should be explained correctly, ie identity formation, personality development.

Importance of peer groups in adolescence development should be explained correctly.

Role of media in formation of ideas in adolescence should be mentioned.

Freud's theory of development (genital stage) could be mentioned (or any other theory of relevance to development in adolescence).

**D2. (a) (continued)**

**Ageing**

Ageing is explained as a period of development that occurs during late adulthood and onset of older age (senescence).

Both physical and cognitive decline occurs during ageing.

Physical changes should be explained in terms of bodily decline associated with some loss of function eg senses, immune system, physical agility, etc.

Cognitive changes should be explained in terms of mental decline associated with some loss of function eg memory, mental agility, intelligence, test items.

The beginning of ageing varies from individual to individual according to factors such as health, mental agility, personality etc.

Erikson's ego identity vs despair should be explained accurately ie coming to terms with one's own life and personal acceptance of death.

Importance of eg family support, friendship circles, leisure interests, to elderly should be explained correctly.

How people live their lives can affect the course of ageing.

An example such as staying alive, social participation, mental exercise, should be used. 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.

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

Explanation of application is clear and accurate.

5  
**(15)**

**Answer ONE question from D3–D8.**

**D3. Lifespan Development**

*Bem, S. L. (1974) developed and tested a scale: the Bem Sex-Role Inventory (BSRI).*

- (a) *What characteristics was the BSRI designed to measure, by comparing an individual's femininity and masculinity scores?*

Level of androgyny.

1

- (b) *Explain how the scale was developed.*

Researchers drew up a list of characteristics (400).

"judges" (100) rated these as being desirable for a woman or for a man.

60 items were finally selected to make up the scale, ie 20 "female", 20 "male" & 20 neutral characteristics.

Most of the above points should be given.

2

- (c) *How did the BSRI differ from previous gender role measures of femininity and masculinity?*

Female and male previously been considered to be two ends of **one** dimension (polar opposites), whereas Bem's scale established two separate, independent dimensions, so that any individual (f or m) would have two scores, one for femininity + one for masculinity.

3

- (d) *How were participants instructed to complete the scale?*

For every item, participants had to respond on a 7-point rating scale, indicating to what extent that particular characteristic applied to her/himself.

2

### D3. (continued)

- (e) *Outline the results of the study.*  
Androgyny was found to be common amongst both sexes.  
Androgyny was found in similar proportions in each sex, ie about a third.  
Approximately half of each sex had characteristics that predominantly conformed to their gender ie feminine females and masculine males. 3
- (f) *According to Bem, what kind of individuals are most likely to be psychologically healthy, and why? Explain whether her findings from this study justify this conclusion.*  
Androgynous people are more likely to be psychologically healthy, as they are more flexible/more free to decide how to act in any situation, unconstrained by sex-role.  
Though the BSRI measures femininity, masculinity and androgyny, it is questionable whether it is valid as a predictive measure of psychological well-being. 4  
(15)

### D4. Attachment

*Ainsworth, M. D. S. & Bell, S. M. (1970) studied infants and caregivers in the “Strange Situation”.*

- (a) *What research methods are used in the Strange Situation, and what is it designed to investigate?*  
Lab experiment; direct/non-participant observation.  
Quality of attachment in infants. 3
- (b) *Describe the environment of the Strange Situation, and its procedure.*  
Laboratory set out like a “normal” room, with toys; one-way observation mirror.  
Three from:  
At the start, mother/caregiver and baby are together – stranger enters – caregiver leaves – caregiver returns, stranger leaves – caregiver leaves – stranger returns – caregiver returns, stranger leaves. 4
- (c) *What responses from the baby were measured?*  
Distress.  
Seeking/resisting/avoiding contact with caregiver and stranger. 2
- (d) *What three types of attachment did Ainsworth & Bell identify, from their findings?*  
Anxious – avoidant (Type A)  
Secure attachment (Type B)  
Anxious – resistant (Type C)  
(later: insecure disorganised – Type D – Main & Solomon 1986) 3
- (e) *Explain two criticisms of this study.*  
Two from:  
Lab study, therefore lacks ecological validity.  
Possible fourth type of attachment neglected (see above).  
Proportions of attachment types are not universal/not the same across cultures.  
Deliberately caused babies distress ie an ethical issue.  
Maybe the SS measured the relationship, or the caregiver’s style, rather than the baby’s attachment type, ie a validity issue. 3  
(15)

## D5. Cognitive Development

*McGarrigle, J. & Donaldson, M. (1974) studied cognitive development in children.*

(a) *What was the main aim of McGarrigle & Donaldson's study?*

To investigate children's ability to conserve, when the transformation is carried out by "Naughty Teddy" rather than by the experimenter/to discover whether children could conserve at a younger age, under certain conditions. 2

(b) *Who was "Naughty Teddy", at what point did he appear, and what did he do?*

A glove puppet, who appeared after the first conservation question had been asked; he "spoiled" the experiment by mixing up one row of counters or moving one piece of string. 2

(c) *Name the method and design that were used, and describe the two conditions under which the children carried out the task.*

Lab experiment; repeated measures.

Adult intentionally made the transformation/Teddy accidentally made the transformation. 4

(d) *What were the results of this study, and how do they challenge Piaget's theory?*

Most could conserve both length and number, in the Naughty Teddy condition.

In the NT condition, 75% responses were correct, compared to 30% in the adult condition/there were over twice as many correct responses for the NT condition as for the adult condition.

The children conserved at a younger age than Piaget had claimed, at 4 – 6 years rather than 7. 3

(e) *What are the possible reasons for the difference between Piaget's findings and McGarrigle and Donaldson's findings about conservation?*

Two or more from:

When the adult makes the transformation then asks the same question again, children may assume this is because they must have given the wrong answer the first time, so change it.

When Teddy makes the transformation, asking the question again makes sense.

Children are cognitively more sophisticated than Piaget imagined, and in the original test may have given the answer they thought the researcher wanted.

Their understanding of the situation includes knowledge of social interaction norms.

The children were more actively involved in the Teddy version, not passive observers.

The children were more relaxed and confident because the Teddy version was more fun.

Piaget's original study ignored the effects of social context on the child's reasoning, etc. 4

(15)

## D6. Moral Development

**Kohlberg, L. (1963)** studied moral development by presenting children and young people with moral dilemmas.

- (a) Name the independent variable **and** the dependent variable in Kohlberg's experiment.  
Age of the participants.  
Type of reasoning shown in answers to the dilemmas. 2
- (b) What was Kohlberg trying to discover, in this research?  
Whether moral thinking/reasoning changes with age; stages of cognition/thinking about moral issues. 2
- (c) Moral development is closely related to which other type of development?  
Cognitive/intellectual. 1
- (d) State **two** questions that the children were asked, when presented with each dilemma.  
What should the main character do (or what s/he should have done)?  
The reason(s) why they should do that. 2
- (e) Describe the theory that Kohlberg based on his conclusions from this investigation.  
Moral thinking/reasoning develops according to three levels, divided into 6 stages; these are maturational, sequential, qualitatively different from each other, universal. 4
- (f) Critically consider the strengths and weaknesses of this research.  
Three or four from the following.

### **Strengths**

Rich, detailed data from in-depth questioning; looked at underlying moral reasoning, not just answers to dilemmas (contrast Piaget); etc.

### **Weaknesses**

Artificial, unfamiliar situation, low ecological validity/realism; hypothetical, ie no consequences; focus on verbal responses not actual behaviour; researcher subjectivity/bias in interpretation of responses; participants were all male, therefore unrepresentative; dilemmas are culture-bound. 4

**(15)**

## D7. Adulthood

*Levinson, D. J. (1978) studied aspects of adulthood.*

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

To discover how people develop throughout adulthood.

1

- (b) *Describe the sample **and** the research method used by Levinson.*

40 men aged 35–45, from a variety of occupational backgrounds.

Non-experimental, interviews (several for each individual), longitudinal.

4

- (c) *Outline the theory that he established on the basis of his findings.*

Development through adulthood follows a series of phases/stages/seasons/eras, which overlap; everyone proceeds through the same stages at roughly the same ages.

2

- (d) *Discuss how this theory differs from other developmental theories, such as those of Piaget, Freud, Erikson.*

Unlike Piaget and Freud, Levinson's theory sees development as continuing through life rather than stopping at the end of adolescence.

Erikson's theory cover the whole lifespan from birth to death, whereas Levinson's focus is on adulthood only.

Comparisons based on types of development (eg emotional/social/cognitive etc) or based on nature/nurture, are also acceptable.

3

- (e) *One of Levinson's conclusions was that men experience a "midlife transition" ("midlife crisis"). Explain what is meant by this, **and** consider whether this conclusion is justified by his findings.*

Period in men's 40s of self-questioning, self-doubt, reappraisal of their life, career, marriage; whether their "dream" formed in younger adulthood has been or will be achieved; adjustment of expectations etc.

One from:

There is little support for this view in later research, which has found that major changes occur at every other age too, not just in mid-life; oldest participant was 47, so Levinson did not discover whether there were crises at later ages; concepts of the "dream" in young adulthood, and "mid-life crisis", may not apply in non-western cultures.

4

- (f) *Give **one** methodological criticism of this research.*

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 interpretation of answers.

1

(15)

## D8. Ageing

*Langer, E. J. and Rodin, J. (1976) studied elderly people in a residential home.*

- (a) *In their study, Langer and Rodin offered elderly people enhanced choice and personal responsibility; what effects did they predict this would have on the participants?*

That it would improve their mental and physical well-being. 2

- (b) *What was the main research method?*

Field experiment 1

- (c) *Describe in detail both conditions of the independent variable in this study.*

The experimental group of residents were given a talk emphasising **personal** responsibility for their own care, arranging their room, deciding which night to see a film etc; they were also offered a plant, and had to decide whether they wanted it or not, and which one they wanted.

The control (comparison) group received a talk emphasising the **staff's** responsibility for caring for and managing the residents' activities, including determining which night they would be scheduled for the film; they also received a plant, but had no choice as to which one, or whether to accept it or not, and were told the staff would take care of it. 4

- (d) *Outline Langer & Rodin's findings.*

One from:

The experimental group showed significant increases in happiness, alertness and activity, and greater participation in movie attendance and the jelly-bean competition.

They concluded that inducing an increased sense of personal responsibility and choice improves physical and mental well-being in the elderly; senility and diminished alertness are not inevitable consequences of the ageing process itself, but are environmentally-influenced. 2

- (e) *Evaluate this study by explaining one strength, and one weakness.*

Strengths: High ecological validity/realism/naturalistic, due to being carried out in the field. Allocation of Ps to conditions was controlled/unbiased/matched.

Weaknesses: Lack of control of other factors, due to being carried out in the field  
subjectivity/bias of ratings: self-report, or ratings by staff who knew residents well etc. 4

- (f) *Explain one ethical problem with this study.*

One from:

Participants unaware of taking part in research; deception

No informed consent requested or given

Comparison (control) group deprived of benefits of enhanced personal responsibility. 2

(15)

[END OF SECTION D]

## SECTION E

### COGNITIVE PSYCHOLOGY

Answer BOTH question E1 and E2 and ONE question from E3–E7.

Answer ALL parts of chosen questions.

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 processes should be briefly explained. 3
- Sensory, short and long term memory should be briefly described. 3

#### OR

- Different types of memory, eg semantic, episodic and procedural. 3
- One model of memory should be discussed from: 2 process theory, levels of processing or working memory model. 3

**(10)**

**E1. (continued)**

**Language**

Awareness of nature of language should be briefly explained in terms of semanticity, productivity, displacement and symbolism.	2
Elaborate and restricted codes should be mentioned.	1
Linguistic functioning in humans is a complex cognitive function highly important to human development.	2
A model of language should be discussed, eg linguistic relativity hypothesis.	2
The interaction of the relationship between language and thought should be explained.	3
	<b>(10)</b>

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

Specific example is given correctly.	1
Example is accurately related to one of the following fields: health, work, education, society.	1
Explanation of application is clear and accurate.	3

**Total 5,5**

**Total (30)**

**Answer ONE question from E3–E7.**

**E3. Perception**

**Blakemore, C. and Cooper, G. F. (1970)** carried out a study “**Development of the brain depends on the Visual Environment**”.

(a) <i>Who were the participants in the study?</i> Kittens raised from birth.	2
(b) <i>What was the independent variable in this study?</i> Either a vertical or horizontal environment.	2
(c) <i>Explain the procedure used in this study.</i> This was a laboratory experiment. Kittens were raised from birth in darkness. For 5 hours each day kittens were put into vertically striped or horizontally striped drum. Sensory deprivation occurred so kittens could only see either vertical or horizontal stimuli. At 5 months kittens were tested for line recognition.	5
(d) <i>Give one ethical issue associated with <b>Blakemore and Cooper’s</b> study.</i> The behavioural blindness changed the experience for the kittens. It may be cruel to do this as it appeared to be permanent.	2
(e) <i>What were the conclusions of this study?</i> Findings suggest type of environment is important to development of perception. There was evidence of partial learning of perception, as the cats could perceive the horizontal world or vertical world, as appropriate.	4

**(15)**

**OR**

**E4. Attention**

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

(a) <i>What was the aim of this study?</i> To investigate our ability to selectively attend to stimuli when it depends on the identification of verbal or linguistic features. To build on Cherry’s “Cocktail Party” phenomenon.	3
---	---

**E4. (continued)**

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

The participants used were students. The experimental technique used was shadowing, originally used by Cherry. Treisman varied this technique by changing both the kind of material input to the unattended ear and its relationship to the material input to the attended ear. The content of the message to be attended to was a passage from Lord Jim.

The content of the irrelevant messages varied (*candidates should give examples but there is no need to have all variations for full marks*): prose from same book in man's voice or woman's voice; insertion of Latin in woman's voice; discussion on biochemistry in woman's voice; French, Italian or German prose in same voice as IV Backwards English, French translation, "Pigeon" Czech in English accent.

6

- (c) *What assumptions did this study contradict?*

Broadbent's assumptions that unattended channels cannot be processed for meaning.

2

- (d) *What were the conclusions of Treisman's study?*

The meaning of a message can be recognised prior to the processing stage (at which focussed attention has its effect). Several inputs can be processed at the same time.

4

**OR**

**(15)**

**E5. Thinking**

**Samuel, J. and Bryant, P. (1984)** "Asking only one question in the conservation experiment".

- (a) *What design was used in this study?*

This was an independent measures design. Laboratory experiment.

2

- (b) *Explain what is meant by demand characteristics in psychological research and state how they apply to this study.*

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

The children may have thought that the experimenter changed something just because the experimenter asked a question about change.

4

- (c) *Describe the procedure used in the Samuel and Bryant study.*

They used 252 children, aged between 5 and 8 years.

They carried out the standard conservation task in the same way as Piaget described.

They had a condition where they only asked the children about size (or volume or number) of objects *after* they have been changed.

They had a condition where the children only saw the objects after they had been changed and not before (fixed array).

The task used concerned mass, volume and number conservation.

The order of the tasks was varied between the children. Each child was given 4 trials but in only one condition.

Each age group was tested in all three conditions.

5

- (d) *What were Samuel and Bryant's conclusions?*

Children can conserve earlier than Piaget suggested.

The question asked affected the way the children demonstrated conservation skill.

4

**OR**

**(15)**

**E6. Memory**

**Loftus, E. F. and Palmer, J. C. (1974)** investigated "Reconstruction of automobile destruction: an example of the interaction between language and memory".

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

45 students in the first study and 150 students in the second study.

1

**E6. (continued)**

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

The 45 students were shown 7 film clips of traffic accidents and asked to write a description of each event. They also had to answer some questions, including one on how fast the vehicles were going when the collision occurred.

There were 5 conditions, with the IV being the manipulation of wording of questions. The questions had either “smashed” “collided”, “bumped”, “hit” or “contacted”.

In the second study 50 students were asked how fast the cars were going when they “smashed” into each other, 50 were asked how fast were they going when they “hit” each other, 50 were not asked about speed.

A week later all students were questioned again. The critical question was “Did you see any broken glass”. There was no broken glass.

6

- (c) *Give two limitations of this study.*

Any **two** from:

The results could have been students working out what was expected (demand characteristics).

The subjects had no personal involvement so this laboratory situation is not the same as real life.

The students are a biased sample, so we should not generalise from this. (or similar)

4

- (d) *What conclusions can be drawn from this research?*

Our memories are susceptible to influence. This has implications for eyewitness testimony. The studies show that verbal labels used in questioning has an impact on memory. Also, information supplied after an event may become incorporated into our memory of that event.

4

**(15)**

**E7. Language**

*Carmichael, I., Hogan, H. P. and Walter, A. A. (1932) carried out a study involving the “reproduction of visually perceived forms”.*

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

To assess the effect language has on the reproduction of visually perceived forms.

2

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

60 males, 35 females. The participants were either students or college teachers.

3

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

This was a laboratory experiment.

12 stimulus figures were used.

Subjects were placed across from experimenter and told that they would be shown a set of figures, which they were required to reproduce in any order.

Condition one was the stimulus figures and word list 1.

Condition two was the stimulus figures and word list 2.

There was a control group who only saw pictures.

Experimenter read out each word alongside the stimulus picture.

The subsequent drawings were rated by two/three judges.

6

- (d) *Give both the independent and dependent variables in this laboratory experiment.*

IV = Word list 1 or 2 or no accompanying word.

DV = visually perceived form drawn by participants.

4

**(15)**

[END OF SECTION E]

## SECTION F

### BIOLOGICAL PSYCHOLOGY

Answer BOTH question F1 and F2 and ONE from F3–F6.

Answer ALL parts of the chosen question.

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

physiological basis of behaviour

sleep and dream states

emotions

stress.

10,10

#### 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 chord, 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)

#### 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. Stage 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)

#### 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

**F1. (continued)**

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)**

**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 a particular field in psychology.*

Theory/research explanation is given correctly.

1

Example is related to one of the fields.

1

Explanation of application is clear and accurate.

3

**(5,5)**

**Answer ONE question from F3–F6.**

**F3. Physiological basis of behaviour**

*Sperry, R. W. (1968) studied “split brain” patients and their particular mental abilities.*

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

**Two marks:**

To investigate the behavioural, neurological and psychological effects of surgical separation of the two hemispheres of the brain.

2

(b) *What research method did Sperry adopt?*

**Two marks:**

Experiment—natural.

2

(c) *Detail the procedure undertaken by Sperry.*

**Two marks:**

Sperry’s participants were suffering from epilepsy, and had their corpus callosum removed.

It was a natural experiment, therefore the IV was in place; however, tasks were presented under controlled laboratory conditions.

**Two marks:**

Details of the visual field task set.

4

**F3. (continued)**

- (d) *What did Sperry conclude from this study?*

**Three marks:**

Patient has two independent streams of consciousness instead of the normal unified stream of consciousness.

The study suggests that the two hemispheres of the brain have different functions/abilities.

Right hemisphere has some understanding of language but cannot express this verbally/written.

3

- (e) *Give two criticisms associated with this study.*

**Two from the following; 2 marks each:**

Patient has two independent streams of consciousness instead of the normal unified stream of consciousness.

The study suggests that the two hemispheres of the brain have different functions/abilities.

Right hemisphere has some understanding of language but cannot express this verbally/written.

4

**(15)**

**F4. Emotion**

*Schacter, S. and Singer, J. E. (1962) carried out an experiment on the effects of adrenaline on 185 subjects.*

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

**Three marks:**

To test experimentally those factors—**physical and cognitive**—which may determine emotional states. Candidates should **explain** why **physiological and cognitive** factors determine emotional states.

3

- (b) *What research method and design did Schacter and Singer adopt?*

**Two marks:**

Laboratory experiment, and

Independent groups design.

2

- (c) *Detail the procedure undertaken by Schacter and Singer.*

**One mark:**

Participants asked to take part in an experiment investigating the effect of a vitamin injection on vision.

**Two marks (half for each of the following conditions—round up if necessary):**

Participants divided into the following groups:

adrenaline informed; adrenaline misinformed; adrenaline ignorant; placebo (control) group.

**Two marks:**

Participants sat in a waiting room, and were exposed to a **happy confederate** (euphoric group), or an **angry confederate** (anger group).

**One mark:**

Participants emotional experiences recorded (observation and survey).

6

- (d) *What did Schacter and Singer conclude from this study?*

**Two marks:**

Conclude that different cognitive factors can produce very different emotional states when the psychological arousal state is identical **and**

Cognitive factors are major determinants of emotional labels we apply.

2

**F4. (continued)**

- (e) Give **one** criticism associated with this study.

**One from:**

Adrenaline does not affect everyone in the same way—some variation in psychological reactions of subjects possible.

Participants mood state ie happy, sad, annoyed, was not assessed prior to the experiment injection being given.

Laboratory situation artificial. Strange environment may upset participants normal mood/emotional state.

Ethical problems associated with deception, potentially harmful effects of the drugs etc.

Problems of sample used—volunteer psychology students. No assessment of emotional state prior to the beginning of the study.

2

**(15)**

**F5. Sleep and dream states**

*Dement, W. and Kleitman, N. (1957) carried out studies on subjects while they were asleep.*

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

**Three marks:**

To investigate the relationship between REMs (Rapid Eye Movements) and the occurrence of dreaming.

3

- (b) What controls did **Dement and Kleitman** take to prevent research bias during this study?

**Four marks:**

Participants were not told, on awakening whether their 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 sleep from which a subject was wakening.

Experimenter did not communicate with subject during the night.

4

- (c) How did **Dement and Kleitman** record physiological changes during sleep and dream states?

**Two marks:**

Electrodes were attached near eyes to measure eye movements during sleep.

Electrodes were attached to the scalp to measure brain waves during sleep.

2

- (d) Give an account of what happened when participants were woken during REM and Non-REM sleep. What did **Dement and Kleitman** conclude from this study?

**Two marks:**

Participants reported dreaming when woken up from REM sleep.

Participants did not recall dreaming when woken up during non-REM sleep.

**Two marks:**

Dream activity occurs during REM sleep.

Dreams do not occur at other times.

4

**F5. (continued)**

- (e) Give **one** criticism associated with this study.

**Three from:**

Participant sample was very small.

Artificial environment ie lab setting/presence of electrodes may have disturbed normal sleep pattern.

Constantly been awakened may change participants pattern of sleep and dreaming.

Self-report could be inaccurate.

2

**(15)**

**F6. Stress**

*Friedman, M. and Rosenman, R. H. (1959) studied personality characteristics associated with coronary heart disease.*

- (a) What was the aim of this study **and** what research design was employed by **Friedman and Rosenman**?

**Two marks:**

Correlation technique.

Longitudinal survey (longitudinal observation is also acceptable, as this is documented in the teaching pack).

**Two marks:**

To investigate the association of specific overt behaviour patterns (Type A personality) with blood and cardiovascular finding.

4

- (b) What were the results of the study?

**Two marks:**

Type A personalities are 2½ times more likely to develop CHD than Type B personalities.

These individuals are then 5 times more likely to experience another heart attack.

2

- (c) What measures were taken to verify that the relationship was not due to change factors?

**Two marks:**

Rosenman assessed the participants' personalities, using a structured interview, prior to the study. This ensured the participants were placed in the correct group.

**Two marks from:**

Adjustments were made for traditional risk factors associated with coronary heart disease.

These factors exclude **smoking; cholesterol levels; poor diet; lack of exercise; poor health education and a history of heart disease in the family.**

4

- (d) Define the personality type, which according to **Friedman and Rosenman**, is associated with coronary heart disease.

**Three marks from, with explanation:**

Hostile

Aggressive

Impatient

Insecure

Highly competitive

Blind respect for rules and regulations

Highly motivated.

3

**F6. (continued)**

- (e) Give **one** criticism associated with this study.

The study only involved men.

The results do not necessarily mean that Type A personalities are likely to develop coronary heart disease.

It may be that other factors associated with Type A behaviour are responsible for coronary heart disease, for example hostility.

Many Type B's develop coronary heart disease and most Type A's don't.

Methodological problems associated with the structured interview.

2

**(15)**

[END OF SECTION F]

[END OF SPECIMEN MARKING INSTRUCTIONS]