Surname	StemUp Model Solution	Centre Number	Candidate Number
Other Names			2

GCE AS

B290U10-1

S19-B290U10-1

PSYCHOLOGY – AS component 1
Psychology: Past to Present

MONDAY, 13 MAY 2019 – AFTERNOON

1 hour 45 minutes

For Examiner's use only		
Question	**Maximum Mark**	**Mark Awarded**
1.	**10**	
2.	**5**	
3.	**2**	
4.	**4**	
5.	**5**	
6.	**6**	
7.	**18**	
8.	**10**	
9.	**20**	
Total	**80**	

B290U101
01

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.

Answer **all** questions.

Write your answers in the spaces provided in this booklet.

If you run out of space, use the continuation page(s) at the back of the booklet, taking care to number the question(s) correctly.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question.

You are reminded of the need for good English and orderly, clear presentation in your answers. Assessment will take into account the quality of written communication used in your answers.

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Answer **all** *questions.*

1. Describe the methodology and procedures of Loftus, E. & Palmer, J.C (1974) *'Reconstruction of automobile destruction: an example of the interaction between language and memory'.* [10]

Methodology: Loftus and Palmer carried out two laboratory experiments using an independent groups design. In experiment 1 the sample was 45 students and in experiment 2 it was 150 students from the University of Washington, tested in groups of various sizes. The IV was the verb used in the critical question and the DV was the estimate of speed (experiment 1) or whether broken glass was reported (experiment 2).

Experiment 1: participants were shown seven film clips of traffic accidents, taken from driver safety films, with the segments ranging from 5 to 30 seconds. After each clip they completed a questionnaire asking them to give an account of the accident and then answer specific questions. The critical question was 'About how fast were the cars going when they hit each other?' Nine participants received the verb 'hit', and the remaining participants were divided equally into groups of nine for whom 'hit' was replaced with 'smashed', 'collided', 'bumped' or 'contacted'. Each participant's speed estimates were recorded and the session lasted about an hour and a half.

Experiment 2: participants watched a film of a multiple car crash lasting less than a minute, in which the accident itself lasted less than 4 seconds. They then completed a questionnaire. 50 participants were asked 'About how fast were the cars going when they smashed into each other?', 50 were asked the same question with 'hit', and 50 (the control group) were not asked about speed at all. One week later participants returned and, without seeing the film again, answered ten questions about the accident. The critical question, placed randomly in the list, was 'Did you see any broken glass?' (yes or no). There was no broken glass in the film.

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2. Dr Singh is a psychologist who favours the behaviourist approach. Explain why he would consider aversion therapy **OR** systematic desensitisation as a suitable treatment for his clients. [5]

Dr Singh would choose systematic desensitisation because behaviourists assume all behaviour, including phobias, is learned through classical conditioning, so it can be unlearned. A phobia is a conditioned fear response to a stimulus (e.g. spiders), so his clients can be counter-conditioned to associate the stimulus with a relaxation response instead, as fear and relaxation cannot exist together (reciprocal inhibition, Wolpe). He would teach clients relaxation, build a fear hierarchy and work up it step by step, with avoidance extinguished and calm behaviour reinforced. As a behaviourist he would also value that it is supported by evidence, e.g. Capafons et al. (1998) found it reduced fear of flying, and that learning principles from animal research apply to humans because all animals learn in the same way.

3. Outline **one** part of the tripartite personality from the psychodynamic approach. [2]

The superego works on the morality principle. It develops at about 3 to 5 years in the phallic stage, as a result of resolving the Oedipus or Electra complex by identifying with the same-sex parent, and consists of the conscience (guilt) and the ego-ideal.

4. Describe the positive psychology assumption of 'authenticity of goodness and excellence'. [4]

This assumption states that goodness and excellence are as authentic (real and valid) as negative psychological states such as depression, so psychology should study and celebrate them rather than focus only on what is wrong. Seligman argued that everyone has signature strengths (e.g. kindness, courage) that should be identified and nurtured, as using them can transform our lives. Therapies therefore aim to facilitate fulfilment by developing these traits, which also acts as a buffer against future mental health problems.

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5. 'Relationship formation is just a result of biological processes.'
With reference to this quote explain how the biological approach explains why a relationship is formed. [5]

The biological approach supports the quote, arguing relationships form because of hormones, neurotransmitters and evolution. Oxytocin, the 'cuddle hormone', is released during touch, sex and breastfeeding and creates bonds between partners and between mothers and infants. Dopamine in the brain's reward system gives a 'hit' of pleasure when we are with someone, giving us positive feelings towards them so we want to be with them again. Evolutionary theory (Buss) argues we are prepared to form relationships to pass on our genes: Buss (1989) found across 37 cultures that men preferred young, physically attractive partners (fertility) while women preferred partners with resources and status. However, the word 'just' ignores cognitive and social factors such as schemas, culture and similarity, so biology is only part of the explanation.

6. Describe the procedures of Raine, A., Buchsbaum, M., and LaCasse, L. (1997) *'Brain abnormalities in murderers indicated by positron emission tomography'.* [6]

Raine et al. used an opportunity sample of 41 murderers (39 male, 2 female) charged in California and pleading not guilty by reason of insanity, matched with 41 controls for age and sex (6 schizophrenic controls). Participants were kept medication free for two weeks. PET scans were used to study the active brain. Ten minutes before the injection participants were given practice trials of the continuous performance task (CPT), in which they pressed a button when a target appeared. 30 seconds before the injection they started the CPT, then the radioactive tracer fluorodeoxyglucose (FDG) was injected and they continued the task, so active areas absorbed the glucose. After 32 minutes participants were given a PET scan and ten horizontal slices of the brain were taken, analysed using the cortical peel and box techniques to measure glucose metabolism in each region.

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7. *(a)* Describe the components of either drug therapy **OR** psychosurgery. [8]

Drug therapy is a biological therapy based on the assumption that mental disorders are caused by abnormal brain chemistry, especially imbalances of neurotransmitters. Different drug types act at the synapse to correct these imbalances and alleviate the symptoms of particular disorders. Drugs are usually prescribed by a psychiatrist or GP, taken orally, and the dose is monitored and adjusted.

Antipsychotic drugs are used to treat schizophrenia. Typical antipsychotics such as chlorpromazine are dopamine antagonists: they block D2 dopamine receptors on the postsynaptic neuron, reducing excess dopamine activity and so reducing positive symptoms such as hallucinations and delusions. Atypical antipsychotics such as clozapine block dopamine receptors more briefly and also act on serotonin receptors, so they may also reduce negative symptoms such as avolition, with fewer side effects.

Antidepressant drugs are used to treat depression, which is linked to low serotonin. SSRIs such as fluoxetine (Prozac) block the reuptake of serotonin into the presynaptic neuron, so more serotonin stays in the synapse to stimulate the postsynaptic neuron, improving mood. Older antidepressants include tricyclics, which block reuptake of serotonin and noradrenaline, and MAOIs, which stop the enzyme monoamine oxidase breaking these neurotransmitters down. They usually take two to four weeks to take effect.

Anti-anxiety drugs are used for stress and anxiety. Benzodiazepines (BZs) such as Valium enhance the action of GABA, the brain's main inhibitory neurotransmitter: GABA opens chloride ion channels, making the neuron less likely to fire, which slows activity and calms the person. Beta-blockers reduce the physical symptoms of stress, such as raised heart rate, by blocking adrenaline and noradrenaline at beta-adrenergic receptors in the heart.

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(b) Evaluate either drug therapy **OR** psychosurgery including its effectiveness. [10]

Drug therapy has research support for its effectiveness. Leucht et al. (2012) reviewed trials and found that only 27% of patients on antipsychotics relapsed within a year compared with 64% on a placebo. However, Kirsch et al. (2008) found that, for most patients, antidepressants were only slightly more effective than placebo, with a clinically meaningful difference only for severe depression, so effectiveness depends on the drug and the disorder.

Drugs are appropriate for many people: they are cheap, quick to take effect compared with therapy, require little effort, and can reduce symptoms enough for patients to engage with talking therapies. Comparison with other therapies supports combining them: the TADS study (2004) found 71% of depressed adolescents improved with fluoxetine plus CBT, compared with 61% on fluoxetine alone, 43% with CBT alone and 35% on placebo.

However, drugs have side effects, e.g. tardive dyskinesia with typical antipsychotics, and dependency and withdrawal with benzodiazepines, which reduces compliance. They also treat symptoms rather than causes, so symptoms often return when medication stops (the 'revolving door'), whereas CBT gives lasting coping skills.

The approach is reductionist, reducing disorders to neurotransmitters and ignoring cognitive and social causes such as life events. It also commits the drug aetiology fallacy: the fact that a drug reduces symptoms does not prove that a chemical imbalance caused the disorder. There are ethical issues: some see drugs as a 'chemical straitjacket', and patients may not be able to give fully informed consent; much research is also funded by drug companies, raising bias.

In conclusion, drug therapy is effective, especially for schizophrenia and severe depression, and works best combined with psychological therapy, but side effects and its focus on symptoms limit it.

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8. Analyse the strengths and weaknesses of the cognitive approach. [10]

A strength of the cognitive approach is supporting empirical evidence. It uses scientific, controlled laboratory experiments, such as Loftus and Palmer (1974), who showed leading questions distort eyewitness memory, making research objective and replicable. However, these tasks are often artificial, so they lack ecological validity and mundane realism.

Another strength is its application to society. Cognitive research has improved police interviewing (the cognitive interview) and led to CBT, which is effective for depression and anxiety, showing the approach has practical value.

Regarding nature versus nurture, the approach takes a balanced view: it recognises innate mental structures and capacities, but also that schemas are shaped by experience. It also accepts that people can change faulty thinking, giving some free will, unlike behaviourism. This can be seen as a strength over more extreme approaches.

However, it is mechanistic, comparing the mind to a computer (input, processing, output). This ignores emotion, motivation and consciousness, and humans are not as logical as computers, so the analogy oversimplifies thinking. It is also reductionist, breaking complex behaviour into separate processes such as attention and memory, and ignoring biological and social influences.

It is nomothetic, seeking general laws of cognition, which helps prediction but ignores individual differences, such as different schemas and cultural backgrounds.

Ethically, most cognitive research is low risk, though some uses deception, and CBT may blame clients' faulty thinking rather than their circumstances. Also, mental processes cannot be observed directly, so they must be inferred.

In conclusion, the cognitive approach is scientific and highly useful in society, but its mechanistic and reductionist nature means it gives only a partial explanation of behaviour.

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9. In today's society the mother should still be the primary care-giver of an infant. Using psychology theories and research, discuss this viewpoint. [20]

The view that the mother should be the primary care-giver comes from the psychodynamic approach, especially Bowlby. Bowlby's theory of monotropy argued that infants have an innate need to form one special attachment, usually with the mother, which is qualitatively different from others. This attachment must form within a critical period of about the first two and a half years, and it acts as an internal working model for future relationships. His maternal deprivation hypothesis claimed that prolonged separation from the mother in this period causes irreversible damage, such as delinquency, affectionless psychopathy and reduced intelligence.

Bowlby supported this with his 44 juvenile thieves study. He compared 44 thieves at his London child guidance clinic with 44 non-thieving emotionally disturbed controls. 14 thieves were diagnosed as affectionless psychopaths, and 12 of these had experienced prolonged early separation from their mothers, compared with only 2 of the 44 controls. This suggests that the mother's continuous presence is vital. Biological research also supports a special mother role: Lorenz's goslings imprinted on the first moving object they saw, showing a critical period, and oxytocin released during birth and breastfeeding promotes mother-infant bonding.

However, there are serious problems with this evidence. Bowlby's study was correlational and retrospective, relying on mothers' recall, and Bowlby carried out the interviews and diagnoses himself, so researcher bias is possible. The findings cannot show that separation caused delinquency. Rutter (1981) argued Bowlby confused deprivation (loss of an attachment) with privation (never forming one); in his Isle of Wight research, delinquency was linked more to family discord than to separation itself. Lorenz's research was on birds, so it may not generalise to humans. Bowlby's views also reflected post-war politics, when women were encouraged to leave work and give jobs back to returning men.

Research also shows that other care-givers can be just as effective. Schaffer and

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Emerson (1964) studied 60 Glasgow infants and found that, although the first specific attachment was usually to the mother, by 18 months most had multiple attachments, including fathers, grandparents and siblings. Infants attached most strongly to whoever showed sensitive responsiveness, not necessarily the person who fed them or spent most time with them. Harlow's monkeys preferred a cloth 'mother' that gave contact comfort over a wire one that gave food, again showing that comfort and responsiveness, not the mother's biology, are key. Field (1978) found that fathers who were primary care-givers behaved like mothers, smiling, imitating and holding infants more than secondary-caregiver fathers, suggesting the role can be taken on by either parent. Research on children raised by same-sex parents (e.g. Golombok) has found they develop normally, which challenges the need for a mother specifically.

Collective care also challenges the view. In Israeli kibbutzim, children were cared for by a metapelet (nurse) in children's houses, yet Fox (1977) found children were still more attached to their mothers, showing that mothers can remain important without being full-time carers.

Research into day care gives a mixed picture. The NICHD study of over 1,000 American children found that more than 30 hours a week in day care was linked to slightly more aggression, which supports Bowlby. However, the EPPE project (Sylva et al.) found that high-quality pre-school improved children's social and intellectual development, especially for disadvantaged children, and intervention programmes such as Head Start were designed on the same basis. This suggests the quality of care and the sensitivity of carers matter more than who provides it.

Economic, social and political factors are also relevant. In today's society most families have two working parents, many children live in single-father or same-sex households, and laws such as UK shared parental leave (2015) allow fathers to take the primary role. Insisting that the mother must be the primary care-giver could harm women's

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9. (continued)

careers and family income, and make fathers feel less important, so it has negative social consequences. On the other hand, policies such as maternity leave recognise that early contact with the mother, for example for breastfeeding, can be beneficial.

From the cognitive approach, the internal working model depends on the quality of the relationship rather than on the gender of the carer, and the behaviourist approach would argue attachment is learned through association with whoever provides comfort.

In conclusion, there is some evidence that mothers are often the first and strongest attachment figure, but the evidence for Bowlby's view is methodologically weak and culturally dated. Research such as Schaffer and Emerson, Field and the day care studies suggests that what an infant needs is at least one sensitive, responsive and consistent care-giver. Therefore in today's society it is not necessary for the mother to be the primary care-giver, as long as the care is of high quality.

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