GCE A LEVEL

A290U10-1

S18-A290U10-1-R1

PSYCHOLOGY – A level component 1
Psychology: Past to Present

MONDAY, 4 JUNE 2018 – AFTERNOON

2 hours 15 minutes

ADDITIONAL MATERIALS

A WJEC pink 16-page answer booklet.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.
Answer **all** questions.
Write your answers in the separate answer booklet provided.

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 necessity 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 'behaviour learnt through conditioning' and **one** other assumption of the behaviourist approach. [4+4]

2. Evaluate the strengths and weaknesses of the positive approach. [10]

3. Describe the findings and conclusions of Loftus and Palmer's (1974) research *'Reconstruction of automobile destruction: an example of the interaction between language and memory'.* [10]

4. (i) Apply your knowledge of 'evolutionary influences' to explain one behaviour. [5]

(ii) Apply your knowledge of 'neurotransmitters' to explain one behaviour. [5]

5. Evaluate the methodology and procedures of Bowlby's (1944) research *'Forty-four juvenile thieves: Their characters and home-life'.* [8]

6. Compare **and** contrast the biological approach and the cognitive approach. [10]

7. *(a)* Describe the main components of dream analysis **OR** psychodrama. [10]

(b) 'Psychodynamic therapies are ineffective and unethical.'

With reference to the above statement, discuss the psychodynamic therapy you described in part *(a)*, using psychological knowledge and research. [10]

8. 'Eyewitnesses are incapable of remembering and recalling accurate information of an event, therefore eyewitness accounts are always unreliable and should never be used in criminal convictions.'

Discuss to what extent you agree with this statement. You should demonstrate your understanding of psychological knowledge and research in your response. [24]

END OF PAPER

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Surname	StemUp Model Solution
Answer booklet	Write the question number in the left-hand margin at the start of each answer.

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1 Behaviour learnt through conditioning: behaviourists assume that all behaviour is learnt through conditioning. In classical conditioning we learn by association. Pavlov found that dogs naturally salivate (unconditioned response, UCR) to food (unconditioned stimulus, UCS). A bell (neutral stimulus, NS) was repeatedly paired with the food until the bell alone, now a conditioned stimulus (CS), produced salivation, the conditioned response (CR). In operant conditioning we learn through the consequences of behaviour. Skinner showed that rats in a Skinner box pressed a lever more often when it delivered food (positive reinforcement) or switched off an electric current (negative reinforcement), and less often when it was followed by punishment. Behaviour that is no longer reinforced undergoes extinction.

Humans and animals learn in similar ways: behaviourists assume that the laws of learning are the same for all species, so non-human animals can be studied in controlled laboratory experiments and the findings extrapolated to humans. Because humans are seen as only quantitatively, not qualitatively, different from animals, Pavlov's dogs and Skinner's rats and pigeons are used to explain human learning. This assumption led to therapies based on animal research, such as token economies in prisons and hospitals (operant), and systematic desensitisation and aversion therapy (classical conditioning).

2 The positive approach, founded by Seligman and Csikszentmihalyi (2000), focuses on what makes life worth living: positive emotion, strengths, virtues and well-being (PERMA), rather than on what is wrong with people.

A major strength is that it is the only approach that focuses on mental health rather than mental illness. Traditional psychology has concentrated on curing

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disorders, whereas the positive approach aims to make normal lives more fulfilling and to prevent problems developing, for example by building resilience. This gives it a wider relevance to the whole population, not just those who are ill.

A second strength is its successful applications. Seligman et al. (2005) found that simple online interventions such as 'three good things' and 'using signature strengths in a new way' increased happiness and reduced depressive symptoms for up to six months compared with a placebo exercise. Positive psychology has been applied in education (the Penn Resiliency Programme in schools), in the workplace and in the armed forces through the US Army's Comprehensive Soldier Fitness programme, showing its usefulness.

A further strength is that it recognises free will: people are seen as self-regulating and able to choose to develop their strengths and change their lives, which is empowering. It also increasingly uses scientific methods, such as randomised controlled trials and neuroscience (for example brain imaging of positive emotion), which raises its credibility.

However, a weakness is the subjective nature of its concepts and research. Happiness and well-being are difficult to define and are usually measured with self-report questionnaires, which are open to social desirability bias and lack objectivity, so validity can be questioned. Its links to humanistic psychology (Maslow, Rogers) and its use of qualitative methods add depth but make findings hard to replicate.

Another weakness is cultural bias. Its ideas of happiness and individual achievement reflect Western, individualistic values and may not generalise to collectivist cultures where well-being is defined in terms of the group. Critics such as Lazarus (2003) also argue that the emphasis on positivity can make people who cannot 'think positively' feel to blame for their own unhappiness, and that it ignores situational causes such as poverty.

In conclusion, the positive approach is useful and has well-supported applications, especially its preventative focus on health, but its subjective measures and

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	cultural bias mean its claims need more rigorous, cross-cultural research.
3	Experiment 1 (45 students watched seven films of traffic accidents and were asked 'About how fast were the cars going when they ___ each other?'). The verb in the question affected the speed estimates. Mean estimates were: smashed 40.8 mph, collided 39.3 mph, bumped 38.1 mph, hit 34.0 mph and contacted 31.8 mph. The differences were statistically significant ($p < 0.005$), so participants estimated the cars were travelling fastest when the verb 'smashed' was used and slowest with 'contacted'. For four of the films the actual speed was known (20, 30, 40 and 40 mph), but the mean estimates were 37.7, 36.2, 39.7 and 36.1 mph. Participants were therefore poor at judging speed, and the actual speed had little effect on their estimates. Conclusions of Experiment 1: the form of the question, even a single word, can markedly affect a witness's answer, so leading questions can distort memory for an event. Loftus and Palmer offered two explanations. The first is response bias: a participant unsure whether to say 30 or 40 mph is biased by 'smashed' towards the higher estimate. The second is that the question actually changes the memory representation, so that the participant 'sees' the accident as more severe than it really was. Experiment 2 (150 students saw a film of a multiple-car accident; 50 were asked about speed with 'smashed', 50 with 'hit' and 50 were controls not asked about speed). The 'smashed' group gave a higher mean speed estimate (10.46 mph) than the 'hit' group (8.00 mph). One week later, when asked 'Did you see any broken glass?' (there was none in the film), 16 of the 50 'smashed' participants said yes, compared with 7 in the 'hit' condition and 6 in the control. So 'smashed' participants were more than twice as likely to report broken glass. In addition, at every level of speed estimate, 'smashed' participants were more likely to report glass than 'hit' participants. Conclusions of Experiment 2: because the verb affected memory a week later,

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	independently of the speed estimate, the results suggest response bias was not the explanation. Instead, the leading question altered the memory itself. Loftus and Palmer concluded that two kinds of information go into memory for a complex event: information from perceiving the original event and external information supplied afterwards. Over time these are integrated into one memory, so we cannot tell which came from which. Accuracy of eyewitness reports is therefore easily distorted by leading questions, which has important implications for police questioning.
4 (i)	Behaviour: sex differences in mate preference in relationship formation. Evolutionary influences suggest that behaviour which increased survival and reproductive success in our environment of evolutionary adaptiveness (EEA) was naturally selected, so the genes for it were passed on (survival of the fittest). Because of anisogamy and differences in parental investment (Trivers), women invest far more in each child (pregnancy and breastfeeding) and so should be choosy, preferring men with resources, status and ambition who can provide for offspring. Men produce millions of sperm and can increase their reproductive success by choosing fertile partners, so they should prefer youth and physical attractiveness, signs of fertility. Buss (1989) surveyed over 10,000 people in 37 cultures and found that women valued financial prospects and ambition more, while men valued youth and good looks more, consistent across cultures, which supports a genetic, evolved explanation. In conclusion, mate preferences can be explained as adaptations, although this is deterministic and ignores free will and social changes such as women's greater financial independence.
4 (ii)	Behaviour: depression. Neurotransmitters are chemical messengers that carry signals across the synapse. When an action potential reaches the presynaptic neuron, vesicles release neurotransmitter into the synaptic cleft, where it binds to receptors on the postsynaptic neuron. It is then broken down or taken back

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up into the presynaptic neuron (reuptake).

The serotonin hypothesis proposes that depression is caused by low levels of serotonin, a neurotransmitter involved in regulating mood, sleep and appetite. Too little serotonin in the synapse means that postsynaptic neurons are under-stimulated, leading to the low mood, poor sleep and changes in appetite seen in depression. This is supported by the effectiveness of SSRIs (e.g. fluoxetine), which block the reuptake of serotonin, increasing the amount in the synapse and relieving symptoms in many patients. Research on tryptophan depletion (reducing the body's ability to make serotonin) has also triggered a return of symptoms in recovered patients, and this can be measured scientifically.

In conclusion, serotonin plays a role, but the relationship may be correlational and the explanation is reductionist and deterministic, ignoring cognitive and social factors.

5

Bowlby's research was a set of case studies of 44 juvenile thieves (aged 5 to 16) referred to the London Child Guidance Clinic, compared with a control group of 44 emotionally disturbed children who did not steal.

A strength of the procedure is the use of the control group. Comparing the thieves with non-thieving children from the same clinic showed that prolonged early separation was far more common among the thieves (especially the 14 'affectionless' thieves, 12 of whom had been separated) than among controls (2 of 44). This allowed Bowlby to argue that maternal separation was linked to delinquency.

A further strength is the depth of information. Each child had a two-hour examination: mental tests by a psychologist, an interview with the mother by a social worker and interviews with the child and mother by Bowlby, the psychiatrist. A case conference then pooled their information and impressions along with school reports, which raised reliability through inter-rater agreement.

In many cases weekly interviews continued for six months or more, building a

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relationship with the child and mother and producing rich, detailed qualitative data.

However, there are weaknesses. As case studies of a unique, clinical sample from one London clinic, the findings lack generalisability to all children or delinquents. Bowlby carried out the psychiatric interviews and diagnosed 'affectionless psychopathy' himself, knowing which children were thieves, so researcher bias may have affected his judgements. Much of the data on early separation was retrospective, relying on mothers' memories, which may be inaccurate or affected by social desirability. The research was also correlational and lacked control over other factors such as education, peers, poverty or the success of any therapy, so separation cannot be said to cause stealing.

Ethically, the use of children raises issues of informed consent and protection from distress when discussing painful family events, and children's own accounts may be inaccurate.

In conclusion, the control group and multiple sources made the study detailed and fairly reliable, but bias, retrospective data and the lack of control limit its validity.

6

One similarity is that both approaches are scientific. The biological approach uses objective methods such as brain scans (fMRI, PET), twin studies and laboratory experiments, while the cognitive approach also uses controlled laboratory experiments, for example memory studies. Both therefore produce reliable, replicable data, but laboratory tasks may lack ecological validity, especially artificial cognitive tasks such as recalling word lists.

Both are also reductionist. The biological approach reduces behaviour to genes, neurotransmitters and brain structures, while the cognitive approach uses machine reductionism, the computer analogy of input, processing and output, which ignores emotion and social context. Both are deterministic, but in different ways: the biological approach is hard determinism (behaviour caused by biology), whereas the cognitive approach is soft determinism, as thinking is

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limited by schemas and processing capacity but people can choose to change their thoughts.

A key difference is the nature/nurture debate. The biological approach is on the nature side, emphasising inherited genes and evolution, whereas the cognitive approach is more interactionist: we have innate processing abilities but schemas develop through experience.

Another difference is how they study the mind. Biological processes can be measured directly, while cognitive processes cannot be seen and must be inferred from behaviour, which makes cognitive psychology less objective.

However, cognitive neuroscience now combines both, using brain scans to locate cognitive processes, showing the approaches are complementary.

Their therapies also differ. Biological drug therapy (e.g. SSRIs for depression) is quick and easy, but treats symptoms rather than causes, has side effects and higher relapse rates, and the patient is passive. Cognitive behavioural therapy (Beck, Ellis) treats the cause, irrational thinking, and the patient is active, with lower relapse, but it is time-consuming and requires motivation. Both have been shown to be useful and relevant to today's society, and they are often combined.

In conclusion, the two approaches are similar in being scientific, reductionist and deterministic, but differ in nature versus nurture and in therapy. Neither alone explains behaviour fully, and their combination in cognitive neuroscience and combined treatment is the most useful.

7 (a)

Dream analysis. Freud (1900) described dreams as 'the royal road to the unconscious'. He believed dreams reveal the inner desires of the id, which are unacceptable to the conscious mind and are normally repressed.

Wish fulfilment: every dream is the disguised fulfilment of an unconscious wish. During sleep the ego's defences are lowered, so id impulses based on primary process thought (irrational, illogical and seeking immediate gratification) can be expressed. However, a 'censor' disguises these wishes so that they do not wake

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	the dreamer, so the dream also acts as the guardian of sleep. Manifest and latent content: the manifest content is the dream as the dreamer remembers and reports it, the storyline. The latent content is the hidden, true meaning, the unconscious wish. The censor turns latent content into manifest content through dreamwork. Condensation combines several ideas into one image. Displacement shifts emotion from an important person or object onto an unimportant one. Symbolisation represents ideas with symbols, for example a long object such as a sword may represent the penis. Secondary elaboration is when the mind organises the images into a logical-seeming story on waking. Dream symbolism: Freud believed some symbols have universal meanings, but not all dreams or images are symbolic ('sometimes a cigar is just a cigar'), and the meaning depends on the individual. The role of the patient and therapist: the patient records dreams in a dream diary and reports them on the couch. The therapist uses free association, asking the patient to say whatever comes to mind about each element of the dream, then interprets the latent content, working back through the dreamwork. The patient's resistance (for example forgetting a dream) and transference are also interpreted. The aim is insight: making unconscious conflicts conscious, leading to catharsis and relief of symptoms.
7 (b)	The statement claims that dream analysis is ineffective and unethical. There is some evidence for both claims, but they are not entirely true. On effectiveness, Eysenck (1952) argued that psychoanalysis was no more effective than no treatment, as roughly two thirds of neurotic patients improved through spontaneous remission. Dream analysis is also hard to test because the therapist's interpretations of latent content are subjective and unfalsifiable: if the patient disagrees, this can be seen as resistance. Hobson and McCarley's (1977) activation-synthesis theory suggests dreams are the brain's attempt to make sense of random brain stem activity during REM sleep, so they may have no hidden meaning to analyse. Much of Freud's evidence came from case studies

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of a few middle-class Viennese patients, lacking generalisability.

However, there is supporting evidence. Solms (2000) found that dreaming involves the forebrain's dopamine-based motivational ('seeking') circuits, consistent with dreams being linked to desires, which partly supports Freud.

Leichsenring and Rabung's (2008) meta-analysis found long-term psychodynamic therapy effective for complex mental disorders, so the statement that it is ineffective is too strong. Effectiveness may depend on the patient: it suits articulate patients with time and money, not those with severe disorders.

On ethics, protection from psychological harm is a concern, as bringing repressed traumatic past events into the open can cause emotional distress. There is an unequal balance of power: the therapist is seen as the expert whose interpretation is correct, and patients may become over-reliant on the therapist over many years. False memory syndrome is a serious risk, as interpretations may lead patients to 'recover' memories of abuse that never happened and falsely blame family members, which Loftus' research on memory distortion suggests is possible. Confidentiality must also be maintained, especially when published as case studies. However, these risks can be reduced if therapists follow professional ethical guidelines, gain informed consent, keep records confidential and avoid suggestive interpretations.

In conclusion, the statement is partly true: dream analysis lacks scientific support and raises ethical issues, but it is not wholly ineffective or unethical if practised carefully.

8

The statement claims that eyewitnesses cannot remember events accurately, so their testimony should never be used to convict. Psychological research shows that eyewitness memory is often unreliable, but not always, so I only partly agree.

Evidence supporting the statement comes from the cognitive approach. Bartlett (1932) proposed that memory is reconstructive: when we recall, we rebuild the memory using schemas, so details are altered to fit our expectations, as in his

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'War of the Ghosts' study, where British participants changed an unfamiliar Native American story to fit their own culture. Loftus and Palmer (1974) showed that a single word in a leading question affected speed estimates (40.8 mph for 'smashed' compared with 31.8 mph for 'contacted') and that, a week later, 16 out of 50 'smashed' participants falsely reported seeing broken glass, compared with 7 in the 'hit' condition. Loftus (1975) also found that 17% of participants asked a misleading question about a barn later reported seeing a barn that did not exist, compared with 3% of controls. This suggests post-event information is integrated into the original memory.

Other factors also reduce accuracy. Loftus, Loftus and Messo (1987) found that weapon focus draws attention away from the perpetrator's face, so participants who saw a weapon were less able to identify the person. Face recognition is affected by the own-race bias: Meissner and Brigham's (2001) meta-analysis found people are better at recognising faces of their own ethnic group. Age matters too: children are more suggestible to leading questions (Ceci and Bruck), and older adults are less accurate in identification. From the biological perspective, high stress and anxiety may impair encoding, and amnesia after head injury can prevent recall, while from the psychodynamic approach traumatic memories may be repressed, so a victim may genuinely be unable to recall what happened.

The real-world consequences support the statement. The Innocence Project has found that eyewitness misidentification played a role in around 70% of convictions later overturned by DNA evidence in the USA. For example, Ronald Cotton spent over ten years in prison after being confidently, but wrongly, identified by the victim, Jennifer Thompson, until DNA evidence identified the real offender. Such cases are costly, damage lives, and in some countries could result in the death sentence for an innocent person, while the real perpetrator remains free in society to reoffend. The media can also contaminate eyewitness memory, for example when a suspect's photograph is published before a line-up.

However, there is strong evidence against the claim that eyewitnesses are always

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unreliable. Much of the supporting research uses laboratory experiments with students watching film clips, which lack ecological validity and mundane realism. Participants know the event is not real and that their answers have no consequences. Foster et al. (1994) found that identification was more accurate when participants believed a robbery was real and the trial would be affected. Yuille and Cutshall (1986) studied 13 real witnesses to a shooting outside a gun shop in Canada and found that their accounts remained highly accurate four to five months later, and that they were not misled by leading questions, despite high stress. This suggests that in real, emotional events memory can be very accurate.

Reliability can also be improved by better procedures. Gary Wells' guidelines recommend that line-ups are conducted double-blind, by an officer who does not know who the suspect is, that witnesses are warned the culprit may not be present, that fillers match the description, and that the witness's confidence is recorded immediately. Wixted and Wells (2017) argue that initial high confidence in a fair line-up is a good indicator of accuracy. The cognitive interview (Fisher and Geiselman), which uses reinstating the context, reporting everything, changing the order and changing perspective, has been found to produce more correct information than a standard police interview without increasing errors (Geiselman et al., 1985). Using open questions instead of leading questions avoids the problem Loftus identified.

There are also legal safeguards. In the UK, the Devlin Report (1976) recommended that a conviction should not usually rest on a single eyewitness identification alone, and the Turnbull guidelines require judges to warn juries about the risks of identification evidence and to consider conditions such as distance, lighting and time spent observing. Today, DNA and CCTV evidence can corroborate eyewitness accounts. Never using eyewitness testimony would have serious ethical and social costs: many crimes, such as assaults, have no forensic evidence, so victims would never get justice and guilty people would go free.

Cultural differences also exist in how much weight courts give to eyewitnesses.

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In conclusion, I disagree with the statement as it is too absolute. Research clearly shows that eyewitness memory is reconstructive and can be distorted by leading questions, weapons, stress, age and race, and misidentification has caused many wrongful convictions. However, eyewitnesses are not incapable of accurate recall, as real-life studies such as Yuille and Cutshall show. Eyewitness accounts should therefore not be used as the only evidence, but they should continue to be used in criminal convictions when gathered using the cognitive interview and Wells' line-up guidelines, and supported by other evidence such as DNA.