GCE A LEVEL

A290U30-1

Z22-A290U30-1

THURSDAY, 16 JUNE 2022 – MORNING

PSYCHOLOGY – A level component 3

Psychology: Implications In The Real World

2 hours 15 minutes

ADDITIONAL MATERIALS

A WJEC pink 16-page answer booklet.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen. Do not use gel pen or correction fluid.

Answer **three** questions in Section A and **one** question in Section B.

Write your answers in the separate answer booklet provided following the instructions on the front of the answer booklet.

Use both sides of the paper. Write only within the white areas of the booklet.

Write the question number in the two boxes in the left-hand margin at the start of each answer, for example **0 1** .

Leave at least two line spaces between each answer.

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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SECTION A: Applications

Answer **three** questions in full.

0 1 **Addictive behaviours**

a) Abiya's friends are concerned about a recent change in her mood, appearance and ability to make sensible decisions. Abiya frequently asks to borrow money from them that she doesn't pay back. They suspect she is using the money to buy substances that she has become addicted to.

Evaluate how agonist and antagonist substitution could be used as a method to help modify Abiya's addictive behaviours. [15]

b) Describe how **one** social psychological explanation helps us to understand addictive behaviours. [10]

0 2 **Autistic spectrum behaviours**

a) Gio has been diagnosed with autistic spectrum behaviours. He gets confused when given instructions that contain lots of words, but loves pictures and rewards. He often has problems starting conversations with others.

Describe Picture Exchange Communication System (PECS) as a method of modifying Gio's autistic spectrum behaviours. [15]

b) Evaluate **two** individual differences explanations of autistic spectrum behaviours. [10]

0 3 **Bullying behaviours**

a) Briefly describe **two** methods of modifying bullying behaviours. [10]

b) 'Social psychological explanations of bullying behaviours provide the bully with excuses that allow them to pass on the blame for their own actions.'

With reference to this statement, evaluate social psychological explanations of bullying behaviours. [15]

0 4 **Criminal behaviours**

a) Sophia was part of a gang that was known to frighten and upset older people in her local neighbourhood. She was recently arrested for vandalising the house of an older person. She knew that what she had done was wrong and was grateful to be given the opportunity to take part in a restorative justice programme.

With reference to Sophia, describe restorative justice as a method that could be used to modify her criminal behaviours. [15]

b) Evaluate **two** biological explanations of criminal behaviours. [10]

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0 5 **Schizophrenia**

a) Describe **one** social psychological explanation of schizophrenia. [10]

b) Over the last six months, Charlie has shown instances of disordered thinking and flatness of affect when carrying out activities. Charlie's behaviours, including hearing voices, have led to a diagnosis of schizophrenia.

Evaluate the effectiveness of **one** method for modifying Charlie's schizophrenia. [15]

0 6 **Stress**

a) Toni is a professional musician who has started to show signs of stress, before and during live performances. Her symptoms, including sweaty palms, increased heart rate, anxiety, and low self-esteem, have been getting worse and may soon prevent her from doing her job.

With reference to Toni, describe **one** method that a psychologist could use to modify Toni's symptoms of stress. [15]

b) Evaluate **two** individual differences explanations of stress. [10]

SECTION B: Controversies

Answer **one** of the questions.

Either,

0 7 **Ethical costs of conducting research**

'The benefits to society and the economy of psychological research outweigh any potential negative ethical consequences.'

To what extent do you agree with this statement? Justify your answer using psychological knowledge. [25]

Or,

0 8 **Cultural bias**

'An overreliance on research subjects (participants) from the U.S. and other Western nations can produce false claims about human psychology and behaviour.'

(adapted from www.sciencedaily.com/releases/2010/06/100630132850.htm)

Using your knowledge of cultural bias in psychology, discuss the extent to which this statement is true. [25]

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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01 (a)

Agonist substitution treats addiction by replacing the abused drug with a safer drug that acts on the same receptors. Methadone is a full opioid agonist: it binds to the same opioid receptors as heroin but is taken orally once a day and has a long half-life, so it stabilises the reward system, prevents withdrawal and cravings, and blocks much of the 'high' if heroin is taken. It is a maintenance treatment, and the dose can later be reduced. Antagonist substitution, usually a last resort, uses drugs such as naltrexone that block the receptors, so the substance no longer produces pleasure; without reinforcement, drug use should be extinguished.

If Abiya's substance is heroin (the scenario does not say), methadone could be prescribed. There is strong evidence for its effectiveness: NICE recommends methadone and buprenorphine as maintenance treatments for opioid dependence, and Van den Brink and Haasen (2006) reviewed the research and found that methadone maintenance reduces illicit heroin use, injecting, crime and death, but only at an adequate dose. This suggests that with a properly managed dose, Abiya's cravings and withdrawal would be controlled, which should improve her mood and decision-making. There are also social benefits: the National Treatment Agency (2009) reported that drug users in treatment commit far fewer crimes, so Abiya would no longer need to borrow money she does not pay back. However, Gyngell (2011) argued that methadone programmes cost society hundreds of millions of pounds a year and that many users stay on methadone for years rather than becoming drug free (also reported by Doward, 2011), so critics see it as replacing one addiction with another.

There are serious ethical issues. Methadone can cause respiratory depression and overdose, especially when combined with alcohol, other drugs or antidepressants,

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and Office for National Statistics figures show that methadone is involved in a substantial number of drug poisoning deaths each year. If Abiya drinks or uses other drugs, methadone could put her life at risk, so supervised daily dosing would be needed. Buprenorphine, a partial agonist with a 'ceiling effect' on respiratory depression, may be a better choice, as Marteau et al. (2015) argued it is much safer than methadone in overdose.

Naltrexone could help Abiya stay abstinent after detoxification. NICE found that it reduced relapse, but mainly in people who were highly motivated and supervised, as many stop taking it. Lahti et al. (2010) found that naltrexone reduced gambling urges, suggesting it works for behavioural addictions too, although this was a small study. Side effects include nausea, headaches and possible liver damage, so Abiya's liver function would need monitoring. There is also a greater risk of overdose: if Abiya relapsed, she might take more heroin to overcome the block, and her tolerance would have fallen.

Practically, these drugs must be prescribed and monitored, so if Abiya is not registered with a GP or does not seek help, she may be unable to access them, and they would not suit her if her addiction is to a non-opioid drug. Both methods also treat physical dependence but not the psychological and social reasons for Abiya's drug use, so CBT or social support could be combined with them.

In conclusion, agonist substitution, especially buprenorphine, has good evidence for reducing drug use, crime and death, so it would probably help Abiya, but only if it is closely supervised because of the overdose risks. Naltrexone would only be appropriate if Abiya were motivated to remain abstinent.

01 (b)

Peer influence is a social psychological explanation of addiction. It suggests that people, especially adolescents and young adults, start and continue addictive behaviours such as smoking, drinking and drug use because of the influence of their friends and the groups they belong to.

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Borsari and Carey (2001) reviewed research on peer influences on student drinking and identified direct and indirect influences. Direct influence is explicit peer pressure, such as offering a drink, buying rounds or encouraging drinking games. Indirect influence works through social norms. Descriptive norms are perceptions of how much others actually drink or use drugs; injunctive norms are perceptions of how much others approve of it. Students often overestimate how much their peers drink and how much they approve of heavy drinking, so they drink more to fit in with what they believe is normal. This links to normative social influence: people conform to the group to be accepted and avoid rejection, and to social identity theory, where adopting the group's behaviour, such as smoking, becomes part of belonging to the in-group. Bandura's social learning theory explains how this happens. Peers act as role models whom the person identifies with and admires. Through observation, the person pays attention to the behaviour, retains it, has the ability to reproduce it and is motivated to do so. If they see a friend being rewarded for drinking or smoking, for example by appearing popular, relaxed or more confident, they experience vicarious reinforcement and expect the same consequences for themselves. Once they start, direct reinforcement such as praise and acceptance from the group, together with the drug's own pleasurable effects, maintains the behaviour.

Peer influence also helps explain why addiction persists and relapse occurs: if a person's social network is made up of users, drug cues and offers are constant. Kandel (1978) studied adolescent friendship pairs and found that friends became more similar in marijuana use over time, showing both selection (choosing friends with similar habits) and socialisation (being influenced by them). This helps us to understand why treatments often involve changing social networks and why social norms campaigns, which correct the overestimation of peer drinking, are used to reduce addictive behaviours.

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05 (a)

The dysfunctional families explanation suggests that schizophrenia, or relapse into schizophrenia, is caused by faulty communication and negative emotional relationships within the family. It includes the schizophrenogenic mother, double bind theory and expressed emotion.

Fromm-Reichmann (1948) described the 'schizophrenogenic mother', who was cold, rejecting and controlling yet overprotective, creating a tense family climate of secrecy and distrust that could lead to paranoid delusions and, eventually, schizophrenia.

Bateson et al. (1956) developed double bind theory. The child repeatedly receives contradictory messages from a parent, where the verbal message conflicts with the non-verbal message or the metacommunication. For example, a mother says 'come and give me a hug, I love you' but stiffens and turns away when the child does. Whatever the child does is wrong, and they fear punishment or the withdrawal of love. The child cannot comment on the contradiction or escape from the situation because they depend on the parent. Repeated double binds prevent the child developing an accurate understanding of reality and communication, leading to confusion, withdrawal and disorganised thinking. Hallucinations and paranoid delusions may develop as a way of escaping from the impossible situation.

Expressed emotion (EE) is the level of emotion expressed towards the patient by their family or carers. Its components are critical comments, hostility and emotional over-involvement (being intrusive or self-sacrificing), while warmth and positive regard indicate low EE. EE is measured with the Camberwell Family Interview. Brown (1959) found that men discharged from psychiatric hospitals in London who returned to live with their parents or wives were more likely to relapse than those who lived in lodgings or with siblings. Brown et al. (1972) found that patients returning to high EE families had a relapse rate of 58%, compared with 16% for low EE families. Vaughn and Leff (1976) found relapse rates over nine months of 51% in high EE homes and 13% in low EE homes.

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Relapse was 92% for patients in high EE homes who had more than 35 hours a week of face-to-face contact with relatives and were not taking medication. High EE is thought to act as a chronic stressor: in line with the diathesis-stress model, the stress of criticism and hostility triggers the onset of, or relapse into, schizophrenia in a biologically vulnerable person.

05 (b)

I will evaluate cognitive behavioural therapy (CBT). CBT for schizophrenia, usually delivered alongside medication over several months, helps clients identify and challenge irrational beliefs about their symptoms. For example, Charlie would be encouraged to test the evidence for his belief about who the voices belong to and to reattribute them to his own thoughts, and to develop coping strategies such as distraction and reality testing, reducing the distress they cause.

There is good evidence for CBT's effectiveness. Kuipers et al. (1997) randomly allocated 60 people with medication-resistant psychosis who had at least one positive and distressing symptom to CBT plus standard care or standard care alone. After nine months, 50% of the CBT group showed a clinically significant improvement compared with 31% of the control group. Charlie has a distressing positive symptom, hearing voices, so he would probably benefit. However, Kuipers' participants were medication resistant, which is not stated in the scenario, so the findings may not generalise to Charlie. If Charlie is medication resistant, the research suggests CBT plus standard care would help him more than standard care alone. Morrison et al. (2014) found that CBT significantly reduced psychiatric symptoms in people with schizophrenia who had chosen not to take antipsychotic drugs, suggesting CBT could be an option if Charlie refuses medication.

However, the evidence is contradictory. Jauhar et al. (2014) carried out a meta-analysis and found that CBT had only a small therapeutic effect on symptoms, and the effect was even smaller in studies where assessors were

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blind to which group participants were in, suggesting that earlier positive findings may reflect researcher bias. Much of the research investigates short-term programmes; Tarrier et al. (2004) found that benefits were less clear at long-term follow-up, and CBT did not reduce relapse rates. Effectiveness also depends on how 'benefit' is defined: Tarrier found that participants who had CBT seemed less negatively affected by their symptoms, even when the symptoms themselves remained, so CBT may reduce distress rather than cure the disorder. This is still valuable for Charlie, as it may make his voices less frightening.

Charlie's symptoms may limit effectiveness. CBT mainly targets positive symptoms, so his flatness of affect, a negative symptom, may not improve, and it may reduce his motivation to attend sessions and complete homework. His disordered thinking may also make it difficult for him to engage with the logical challenging of beliefs that CBT requires, so it may only be effective once his symptoms are stabilised by medication. There is also an ethical issue affecting access: Kingdon and Kirschen (2006) found that psychiatrists judged some patients to be unsuitable for CBT, so people who could benefit may be denied it because of clinicians' assumptions rather than evidence, and there is a shortage of trained therapists.

Compared with antipsychotics, CBT has no physical side effects. Cole et al. (1964) found that 75% of patients given conventional antipsychotics improved, far more than with a placebo, and Ravanic et al. (2009) found that atypical antipsychotics were more effective than conventional ones, so drugs work faster on positive symptoms, but side effects lead to non-compliance. CBT can improve compliance by helping clients understand their illness.

In conclusion, CBT is moderately effective, mainly in reducing the distress caused by positive symptoms, but the effect is smaller than once thought and less useful for negative symptoms. For Charlie, it would be most effective combined with atypical antipsychotics rather than used alone.

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06 (a)

A psychologist could use stress inoculation training (SIT), developed by Meichenbaum (1985). SIT is based on the principles of cognitive behavioural therapy: stress is caused by the way we think about a situation, so it targets negative, irrational thoughts and replaces them with positive coping thoughts (cognitive restructuring). It links to Lazarus's transactional model, where stress occurs when we appraise a situation as threatening (primary appraisal) and believe we lack the resources to cope (secondary appraisal). SIT works like a vaccination: exposure to small, manageable 'doses' of stress builds resilience so that the person is protected against future stress. Meichenbaum's constructive narrative perspective suggests that people construct stories about themselves and their world, and SIT helps them rewrite a story of helplessness as one of coping. Treatment usually takes 8 to 15 sessions in three overlapping phases.

1. Conceptualisation: the psychologist and client build a collaborative relationship and the client is educated about the nature of stress. Toni would learn that her sweaty palms and racing heart are the normal fight or flight response of the sympathetic nervous system, triggered by adrenaline, and that her anxiety comes from how she appraises performing, for example 'I will make a mistake and everyone will think I'm not good enough'. Toni would keep a diary to monitor when her symptoms start, before and during gigs, and her thoughts at those times. The global problem of 'performing' is broken down into specific, manageable parts, such as walking on stage or a difficult passage, and Toni learns to reappraise her arousal as excitement.

2. Skills acquisition and rehearsal: coping skills are taught and practised in the therapy setting. For Toni's physical symptoms, these would include progressive muscle relaxation and slow diaphragmatic breathing to reduce her heart rate and sweating. For her anxiety and low self-esteem, she would learn cognitive restructuring, challenging thoughts such as 'I'm a fraud' with evidence like 'I've played this many times and audiences pay to hear me', and positive coping self-statements for each stage, for example 'I've prepared well' before going on

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stage and 'one note at a time' during the performance. Other skills could include time management to allow proper rehearsal and assertiveness.

3. Application and follow-through: Toni would apply the skills in increasingly stressful situations. She might first use imagery to rehearse a performance, then perform for the psychologist or a few friends, then in a small venue, before using them in full live performances (graded exposure). Role play would prepare her for unexpected problems, such as a mistake on stage. Booster sessions and relapse prevention would follow, for example before a tour, and Toni might be encouraged to help other musicians, which reinforces her own skills.

SIT is therefore suitable for Toni because it treats both the physical symptoms and the cognitive causes, such as her low self-esteem, and prepares her for future performances, so she can continue her job. In comparison, beta blockers would only reduce her physical symptoms on the night.

06 (b)

Type A personality (Friedman and Rosenman) describes people who are competitive, impatient, time-pressured and hostile, and who are more vulnerable to stress and coronary heart disease (CHD). The Western Collaborative Group Study followed over 3,000 healthy Californian men aged 39 to 59 for eight and a half years and found that Type A men were about twice as likely to develop CHD as Type B men, supporting the explanation. However, Ragland and Brand (1988) carried out a 22-year follow-up and found Type A was not a significant predictor of CHD death, so the link may be weaker than claimed. Later research suggests that hostility is the key 'toxic' component rather than the whole Type A pattern. The sample was only middle-aged American men, so findings may not generalise to women or other cultures, and Type A is a broad category assessed by structured interview, which oversimplifies individual differences.

Hardiness (Kobasa, 1979) is a personality type that protects against stress, made up of control, commitment and challenge (the 3 Cs). Kobasa studied around 800 American business executives using the SRRS and found that those

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with high stress but low illness scored high on hardiness. Maddi studied employees at Illinois Bell during major job cuts and found that hardy employees remained healthy and performed well, while many others suffered. A strength is that hardiness has practical applications, as hardiness training can be used to reduce stress. However, the research is correlational, so illness could reduce hardiness rather than the reverse, and it relied on self-report. The samples were mostly white, middle-class male executives, so there is gender and cultural bias. Funk (1992) argued that hardiness may simply be low neuroticism, so it may not be a separate explanation.

In conclusion, both explanations show that personality affects vulnerability to stress, but the evidence is correlational and based on biased samples. They are best seen as one factor that interacts with stressors and cognitive appraisal.

07

The statement suggests that psychological research is justified because its benefits to society and the economy are greater than its ethical costs. I agree to a large extent, as much research has transformed treatment, education, law and policy. However, I do not agree that benefits outweigh 'any' negative consequences: some costs, especially serious harm to participants or to groups in socially sensitive research, cannot be justified by later benefits.

Many studies that broke today's ethical guidelines produced major benefits. Milgram (1963) deceived 40 male volunteers, who believed they were giving electric shocks to a learner in a study of learning and punishment; 65% went to the maximum 450 volts. Participants showed extreme distress, sweating, trembling and nervous laughter, and three had seizures. Baumrind (1964) criticised the study for deception and harm. However, it showed how ordinary people obey authority in certain social contexts, helping to explain atrocities such as the Holocaust and informing training in hospitals and the military.

Participants were debriefed, and in a follow-up 84% said they were glad to

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have taken part and only about 1% regretted it. One participant, Jacob, later reported that what he learned about his vulnerability to authority made him reassess his life, gain confidence and announce that he was gay. This anomaly suggests the 'costs' may sometimes become benefits for participants themselves, and it shows how hard it is to study valid behaviour without deception: if participants had known the shocks were fake, demand characteristics would have made the results meaningless.

Zimbardo's (1973) Stanford prison experiment put 24 male students into the roles of guards and prisoners. It was stopped after six days instead of two weeks because guards became brutal and prisoners became distressed, with five released early. The consequences were serious, and Zimbardo's dual role as researcher and prison superintendent meant he failed to protect participants. Yet the study showed the power of social roles and situations and was used to argue for prison reform and to explain abuses such as those at Abu Ghraib.

Similarly, Watson and Rayner (1920) conditioned Little Albert, an 11-month-old baby, to fear a white rat; he was never deconditioned, a clear cost to a child who could not consent. However, the research showed that emotions can be learned, which led to systematic desensitisation, an effective therapy for phobias that helps millions of people and returns them to work.

Research also brings economic benefits. Bowlby's work on maternal deprivation, such as his study of 44 juvenile thieves, influenced hospital visiting policies and day care, improving children's emotional well-being. Research on psychoactive drugs and on CBT has led to effective treatments for depression and anxiety; Layard (2006) argued that psychological therapy pays for itself by getting people back to work and off benefits, which led to the government's IAPT programme. Loftus's eyewitness research and the cognitive interview have improved police practice and reduced wrongful convictions. Sieber and Stanley (1988) argued that psychologists should not avoid socially sensitive research, because if research stopped, society would lose knowledge that could improve lives, which would be an abdication of social responsibility.

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On the other hand, some ethical costs are very serious. Sieber and Stanley also warned that socially sensitive research can have consequences for the group participants represent, not just individuals. For example, research on homosexuality, when it was classified as a mental disorder in the DSM until 1973, was used to justify aversion therapy that caused gay men lasting harm, and research claiming racial differences in IQ was used to justify discrimination. Research on addiction or abuse may stigmatise vulnerable groups or cause psychological harm by making participants relive traumatic experiences. In these cases the 'benefits' were often false or harmful, so the statement is not true.

A further problem is that cost-benefit analysis is difficult. Costs and benefits are hard to predict before a study takes place; the Stanford prison experiment was not expected to become so harmful. The benefits usually go to society, while the costs fall on the individual participant, who may not have given valid informed consent. Judging whether benefits outweigh costs is subjective, and researchers may be biased towards their own studies. Animal research raises similar issues: Harlow's monkeys suffered severe distress, but the research increased understanding of attachment.

This is why ethical guidelines exist. The BPS Code of Human Research Ethics requires respect for autonomy, privacy and dignity, scientific integrity, social responsibility, and maximising benefit while minimising harm. Ethics committees weigh costs and benefits before research is approved, and deception is only allowed when there is no alternative, there is no significant risk of harm and full debriefing is given. Techniques such as presumptive consent, prior general consent and the right to withdraw allow valid research with fewer costs. Modern replications, such as Burger's (2009) partial replication of Milgram, which stopped at 150 volts and screened out vulnerable participants, show that much of the benefit can be gained while minimising harm.

In conclusion, I largely agree that the benefits of psychological research to society and the economy outweigh its ethical costs, as studies such as Milgram's and Watson's led to understanding and therapies that have helped many people.

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However, I disagree that benefits outweigh 'any' negative consequences. Serious, lasting harm to participants and harm to the groups they represent cannot be justified, and the benefits are often uncertain in advance. Therefore, the statement is only true when ethical guidelines and committees ensure that the costs are kept to a minimum.