Surname	StemUp Model Solution	Centre Number	Candidate Number
First name(s)			2

GCE AS

B290U10-1

S24-B290U10-1

MONDAY, 13 MAY 2024 – AFTERNOON

PSYCHOLOGY – AS component 1
Psychology: Past to Present

1 hour 45 minutes

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

B290U101
01

INSTRUCTIONS TO CANDIDATES

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

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer **all** questions.

Write your answers in the spaces provided in this booklet. Additional space is provided for some questions within the booklet (if required). If further space is required for any question, you should use the additional 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. The computer analogy is one assumption of the cognitive approach. Describe **two** other assumptions of the cognitive approach. [4 + 4]

Assumption 1: Internal mental processes. The cognitive approach assumes that behaviour is the result of internal mental processes that occur between a stimulus and a response, such as perception, attention, memory, language and thinking. Humans are seen as active information processors: information is taken in through the senses (input), is encoded, stored and transformed (processing), and then leads to behaviour (output). Although these processes cannot be observed directly, cognitive psychologists believe they can be studied scientifically by inferring them from behaviour in controlled experiments, for example measuring recall in memory tasks. Early psychologists such as Wundt tried to study them through introspection, reporting on one's own conscious thoughts.

Assumption 2: Schemas. The cognitive approach assumes that our processing of information is shaped by schemas. A schema is an organised packet of information or knowledge about an object, event, person or ourselves, stored in long-term memory. Schemas are built up through experience and help us to interpret new information quickly and to predict what will happen. There are different types: event schemas (scripts, e.g. what happens in a restaurant), role schemas (how a doctor or teacher should behave) and self-schemas (our beliefs about ourselves). Schemas are not fixed; they can be changed by new present experiences through assimilation and accommodation. However, they can also distort perception and memory, as Bartlett showed when participants recalling 'The War of the Ghosts' changed unfamiliar details to fit their own cultural schemas.

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Additional space for question **1** only:

2. Myers and Diener's (1995) '*Who is happy?*' research has been criticised for being limited. With reference to this statement evaluate Myers and Diener's research. [10]

Myers and Diener (1995) reviewed research into subjective well-being and concluded that happiness is not strongly linked to age, gender or wealth (once basic needs are met), but is linked to traits such as self-esteem, optimism, extraversion and personal control, to close relationships, to satisfying work ('flow') and to religious faith. The criticism that the research is limited has some truth. Firstly, the data are mainly self-reports from questionnaires and interviews. Happiness is subjective, and people may give socially desirable answers, overstating how happy they are. This limits validity. However, Myers and Diener point out that people's self-ratings correlate with ratings by their friends and family and with observations of their behaviour, which suggests the measures are reasonably

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valid, so this limitation is not as serious as it first appears.

Secondly, most of the evidence is correlational. For example, married people report being happier, but we cannot tell whether marriage causes happiness or happy people are more likely to marry. The direction of the relationship cannot be established, which limits the conclusions about what makes people happy.

Thirdly, there are cultural limitations. Although the review used large cross-cultural data sets and meta-analyses (e.g. Inglehart's survey of around 170,000 people in 16 nations), most data came from Western, industrialised countries. Happiness may mean something different in collectivist cultures, and in poorer societies people may have to work to survive rather than to achieve happiness, so the findings may not generalise.

Fourthly, the research presents happiness as fairly stable and trait-based, but Lyubomirsky (2013) argues that happiness can change and can be increased through deliberate activities, which is an alternative explanation the original review underplays.

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On the other hand, the research is a strength because it combines many studies with very large samples, making the findings more reliable than any single study, and it has useful applications, e.g. highlighting relationships and meaningful work, which could benefit society and productivity.

In conclusion, the research is limited by self-report, correlational data and Western bias, but its use of large meta-analytic data and supporting evidence from friends' ratings means the statement is only partly justified.

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3. Identify **two** features of the methodology of Raine, Buchsbaum and LaCasse's (1997) research *'Brain abnormalities in murderers indicated by positron emission tomography'*. [2]

1. It was a quasi experiment: the IV (being a murderer pleading not guilty by reason of insanity, NGRI) was not manipulated by the researchers.

2. Matched pairs design: 41 NGRI murderers were each matched with a control participant (41 controls) on age and sex.

4. Describe the procedures of Bowlby's (1944) research *'Forty-four juvenile thieves: Their characters and home-life.'* [10]

Bowlby carried out his research at the London Child Guidance Clinic between 1936 and 1939. The sample was 44 juvenile thieves (31 boys and 13 girls aged 5 to 16) who had been referred to the clinic, and a control group of 44 children of similar age and sex who had been referred for emotional problems but did not steal.

When a child arrived at the clinic, a psychologist gave them mental tests to assess their intelligence and also noted the child's emotional attitude towards the tests. At the same time, a psychiatric social worker interviewed the mother and recorded a preliminary psychiatric history of the child and family.

At the end of about an hour, the results of the tests and the history were reported by the psychologist and social worker to the psychiatrist (Bowlby). The psychiatrist then interviewed the child and the mother.

At the end of about two hours, a case conference was held between the three people. The information and impressions were pooled, and reports from the child's school and other agencies were also considered. A provisional diagnosis was then made, including classifying the child's character into types (normal, depressed, circular, hyperthymic, affectionless or schizoid), and grading the seriousness and persistence of their stealing.

The majority of children took part in further interviews: the child was given

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Additional space for question **4** only:

psychotherapy by the psychiatrist while the mother discussed her problems with the social worker. In many cases these weekly interviews continued for six months or longer, and this detailed case history information, such as early separations from the mother, was used to compare the thieves with the controls.

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

I will describe psychodrama. Psychodrama was developed by Jacob Moreno in Vienna in the 1920s and is recognised as the first form of group therapy. Clients act out (rather than just talk about) important events, relationships and conflicts from their lives, so that feelings become conscious and can be worked through in a safe setting.

Roles: the protagonist is the client whose issue is being explored. The director is the trained therapist who guides the session. Auxiliary egos are other group members who play significant people in the protagonist's life, such as a parent. The audience are the remaining group members who watch and later share. The action takes place on a stage, a defined space.

Phases: a session has a warm-up, where trust is built and a protagonist is

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chosen; the action phase, where scenes from the past, present or feared future are enacted; and the sharing phase, where the audience share how the drama related to their own lives, rather than judging.

Techniques: in role reversal the protagonist swaps roles with an auxiliary ego, e.g. plays their own father, which encourages awareness of the other person's perspective. In the mirror technique an auxiliary ego plays the protagonist while the protagonist watches from outside the scene, allowing them to see their own behaviour objectively. In doubling an auxiliary ego stands behind the protagonist and voices thoughts and feelings that the protagonist may be holding back, making unconscious feelings conscious. Other techniques include the soliloquy and the empty chair. The aim is catharsis and insight, which can then be rehearsed into new behaviour.

Additional space for question **5**(a) only:

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(b) Evaluate the therapy that you described in **5**(a) in terms of ethical considerations and effectiveness. [10]

Ethical considerations: psychodrama risks psychological harm. Acting out painful events can cause embarrassment, anxiety or distress, and may bring up memories that the protagonist is not ready to deal with, especially in front of an audience. There is also a risk of physical harm if a protagonist acts out anger and hurts an auxiliary ego. However, these risks can be reduced: a trained director controls the intensity, and suitable support after therapy, such as the sharing phase and private time with the therapist, helps protect the client. Confidentiality is harder to guarantee in a group, so all group members must agree that personal details remain anonymous and private. Therapists must also show professionalism by following the ethical guidelines set for psychodrama practitioners. Overall, the therapy can be ethical if these safeguards are followed, but it is not suitable for every client.

Effectiveness: psychodrama can be effective in dealing with past events that have never been dealt with before, as acting them out can produce catharsis and insight. Kipper and Ritchie (2003) carried out a meta-analysis of 25 experimental studies and found an overall large effect size, similar to or better than other group therapies, with role reversal and doubling being the most effective techniques. Psychodrama has a wide application across settings and groups, including adults, adolescents and children (Moreno), and it can be combined effectively with other therapies (Kellerman, 1992).

However, many studies have small samples and lack control groups, and success depends on the skill of the director, so effectiveness is hard to measure objectively.

In conclusion, psychodrama appears effective, but its ethical risks mean careful client selection and support are essential.

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Additional space for question **5**(b) only:

6. Analyse the strengths of the behaviourist approach. [10]

One strength of the behaviourist approach is that it is scientific. Behaviourists such as Pavlov and Skinner studied only observable behaviour in controlled laboratory experiments, measuring stimuli and responses objectively. This allows cause and effect to be established and studies to be replicated, giving psychology credibility as a science. However, by ignoring mental processes it may miss important causes of behaviour.

A second strength is that it has many successful applications. Principles of classical and operant conditioning have led to effective therapies such as systematic desensitisation for phobias and token economies in prisons and psychiatric hospitals, as well as behaviour management in schools. This shows the approach has real practical value for society.

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Thirdly, it takes a nurture view: behaviour is learned from the environment. This is optimistic because if behaviour is learned it can be unlearned, so people can change. It also focuses on the here and now, so therapies are relatively quick and do not need to uncover the past, unlike psychoanalysis.

Fourthly, being deterministic means behaviour can be predicted and controlled, which supports the scientific aim of prediction. Its reductionist approach, breaking behaviour into stimulus and response units, makes behaviour easy to test, although this may oversimplify complex human behaviour.

Finally, the use of non-human animals is a strength: because behaviourists believe the laws of learning are the same across species, animals such as Skinner's rats can be studied in situations that would be impractical or unethical with humans. However, generalising from animals to humans may be questioned.

In conclusion, the approach's scientific methods and effective practical applications are major strengths, although many of them can also be seen as limitations.

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7. 'Neuroscience is unethical.'
Discuss the extent to which you agree with this viewpoint. You should use psychological knowledge in your answer. [20]

Neuroscience is the scientific study of the nervous system and brain and how it relates to behaviour, thought and emotion. Its history in psychology goes back to cases such as Phineas Gage (1848) and Broca's (1861) discovery of a speech area, and today it uses scanning techniques such as PET, fMRI and EEG.

Neuroscience is linked to the biological approach, and its uses include treating mental illness through psychopharmacology, predicting illness, neuromarketing and mood or attention enhancement. Whether it is unethical depends on how it is carried out and used.

Raine, Buchsbaum and LaCasse (1997) used PET scans to compare 41 murderers pleading NGRI with 41 matched controls. After a continuous performance task and injection of a glucose tracer, the murderers showed reduced activity in the prefrontal cortex, corpus callosum and some subcortical areas. This raises ethical issues. If brain scans are used in the justice system to predict criminality or influence sentencing, people could be labelled or punished for their biology, or murderers could avoid responsibility. However, Raine stressed that the findings do not show that brain abnormalities cause violence, nor that PET can diagnose murderers. This suggests the danger lies in misuse by the media and courts, not in the research itself.

Libet (1985) used EEG and found that a readiness potential in the brain appeared about 350 ms before participants were aware of deciding to move a finger. This has been interpreted as showing that free will is an illusion. Such deterministic and reductionist conclusions are ethically worrying because they could undermine personal responsibility. However, Libet himself argued that we keep a conscious 'veto', and the study used a simple, artificial task, so its validity for real moral decisions is limited.

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Fuchs (2006) discussed the ethics of neuroscience, arguing that reducing the person to the brain is a mistake and calling for neuroethics. Issues include privacy and confidentiality (scans could reveal thoughts, lies or illness risk), incidental findings such as tumours that participants did not expect, and fairness in using drugs to enhance mood and attention. Neuromarketing raises concerns that companies could manipulate consumers without their awareness. In education, using brain or intelligence data to allow or deny entry to schools could be socially sensitive and discriminatory.

Much neuroscience has also relied on animal research, such as lesioning or implanting electrodes, which causes harm, and extrapolating the results to humans raises questions of validity as well as ethics.

On the other hand, there are strong arguments that neuroscience is not unethical. Modern techniques such as fMRI and EEG are non-invasive, and studies follow ethical guidelines (e.g. BPS) on informed consent, right to withdraw and confidentiality. Neuroethics committees now review research. The benefits are huge: understanding the brain has led to treatments such as drugs for depression and schizophrenia and deep brain stimulation for Parkinson's disease, and early prediction of mental illness could allow early help. Arguably it would be unethical not to carry out research that can reduce suffering.

The media also play a role. Brain scan images are persuasive, and news stories about a 'criminal brain' or a 'brain area for love' can oversimplify findings. This makes neuroscience socially sensitive research (Sieber and Stanley), because it can have consequences for whole groups, for example if certain people are seen as biologically dangerous. Responsibility therefore lies with researchers to communicate findings accurately.

There are also issues of reliability and validity: scans are open to interpretation

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and predictions of future illness or crime are not perfectly reliable, so the ethical risks increase when results are presented as more certain than they are.

In conclusion, I disagree with the view that neuroscience is unethical in itself. The research methods are mostly safe and regulated, and the benefits are substantial. However, applications such as predicting crime, neuromarketing and enhancement raise serious ethical issues, so neuroscience must be guided by neuroethics and interpreted cautiously.

END OF PAPER

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