Study Psychology

HELPING YOU ACHIEVE

A-Level Psychology

Practice Paper

MARK SCHEME

This is a practice paper intended for revision following the **AQA** specification.

Paper 3: Issues and Options in Psychology

2 hours

Section A: Issues & Debates

1. **AO1 (1)** for the correct answer: **C**

2. **AO1 (1)** for the correct answer: **C**

3. **(a) AO2 (2)**
   One clear reference to nature and one clear reference to nurture from the scenario. **For example:** ***The statement 'mental health runs in the family' is an assumption from the nature debate (biology), whereas the statement 'people who have experienced trauma or life changing events can have an increased risk' is an assumption from the nurture debate (environment).*** Other reasonable marking points gain credit.

   (b) AO2 (2)
   Clear definition of psychic determinism with reference to the scenario. **For example:** ***Psychic determinism suggests that all our thoughts, feelings, and behaviours are the result of unconscious mental processes and past experiences, particularly if they are negative, emotional events. This is suggested by the statement 'people who have experienced trauma, can have an increased risk'.*** Other reasonable marking points gain credit.

4. **AO3 (2)**
   Outline of one limitation of forming conclusions using the principle of universality. Examples include; bias, poor generalisation/ non-representativeness, ignoring cultural differences or individual differences. **For example:** ***One limitation of forming conclusions in psychology using the principle of universality is that it assumes we are all the same and makes generalisations about behaviour, which is failing to consider individual or cultural differences. For instance, the findings of a study which included an all-male sample, would only be representative to other males. We would also be unable to generalise these findings to other people from other cultures.*** Other reasonable marking points gain credit.

5. **AO2 (2)**
   Outline of biological reductionism with reference to one topic in psychology. **For example:** ***Biological reductionism is the idea that behaviour can be reduced to simpler components with a physiological cause such as genetics or brain chemistry. For instance, in biopsychology Sperry (1968) argued the one reason why his split-brain patients had differences in their performance on the visual or tactile tasks, was due to the lack of lateralisation in their brains. This idea reduces their behaviour down to simple explanations in the brain.*** Other reasonable marking points gain credit.

6. **(a) AO2 (2)**
   Two reasons why it was appropriate to use a Wilcoxon test in this situation, answers must reference the context of the study. **For example:** ***One reason a Wilcoxon test was appropriate is that this study is using a repeated measures design, as all 12 participants took part in both conditions; they were tested with the list written in black and the list written in colours. Another reason was it collected ordinal data from the scores***

out of 20 on each word list, allowing participants to be ranked in order. Other reasonable marking points gain credit.

(b) AO2 (2)

One strength of counterbalancing in this study. **For example:** ***One strength of counterbalancing is that it reduces order effects like practice or fatigue. In this study the participants were counterbalanced in the two conditions meaning half of the group would have completed condition i - words written in black, followed by condition ii - words written in colour. Whereas the other half of the group would have done the reverse conditions; ii first followed by i. This balances out any order effects and increases the validity of the results.*** Other reasonable marking points gain credit.

(c) AO1 (1) AO2 (1)

Explanation of why it is appropriate to claim that there was a causal explanation in this study, showing knowledge of the scientific emphasis of causal explanations. **For example:** ***A causal explanation is based on the scientific notion that behaviour is determined by internal or external factors and that there is a cause-and-effect relationship. In this study the experiment was a controlled laboratory study so the only thing that changed was the IV (colour of the words on the lists), all other variables were controlled and there was a significant effect on the DV (number of words correctly recalled).This suggests cause and effect can be used to explain performance on the test.*** Other reasonable marking points gain credit.

7. AO1 (3), AO2 (2), AO3 (3)

Discussion of one or more ethical implications of research in psychology, with reference to at least one topic studied in psychology. Examples include; effects of research on participants, effects on the wider population, use of the findings for socio-cultural reasons or political consequences. Topics could include research in obedience (Milgram), attachment (Bowlby), clinical/ mental health (diagnosis/ treatments; depression, schizophrenia etc), aggression or forensic psychology implications. Evaluation to include, evidence to explain/ elaborate or analyse the implications, cost-benefit discussion, how researchers deal with these implications. **For example:** ***Psychological research must consider the ethical implications or consequences for the participants who take part in studies and psychologists are required to balance the rights of the individuals against the need to produce research that is useful for society. In some studies, the ethical implications result in participants experiencing effects long after the study has taken place. For example, in Milgram's study of obedience participants were asked by an authority figure to give electric shocks to another 'innocent' participant. These shocks went up to 450 volts, and this could have made the participants feel guilty or upset from causing harm to another person. As a result, Milgram offered the participants support for up to 18 months after the study. In Milgram's defence he argued that the study was necessary to test the idea of blind obedience to authority and provided greater understanding of the influence of authority on behaviour, suggesting the 'ends justified the means'. Similarly, in Zimbardo's study on conforming to social roles, participants were allocated the role of prisoner or guard. Equally those playing the role of guard may have experienced guilt for their actions. In addition, ethical implications can result in psychological or mental harm following the study, this was seen in the effects felt by the prisoners in Zimbardo's study. However, the risk of ethical implications must be balanced by the researcher in a cost-benefit analysis. They need to weigh up the benefits to science as well as the wider implications for society, against the cost to those who participate in the research. If research can demonstrate long-term gain for people or groups in the future it may be worth conducting. For example, many research studies in the field***

of attachment had to consider the ethical implications of conducting the research. For instance, Bowlby's research into maternal deprivation led to conclusions that long-term effects on development and psychological harm were caused to children who were separated from their mothers during the critical period (0-2.5 years). This could have led to blame shifting onto mothers who needed to return to work after having a baby. Later studies refuted this idea and demonstrated that if care was substituted by someone the child trusts and bonds with these effects are minimised. When conducting psychological research, it is important for the researchers to consider the ethical implications for the individuals taking part but also for those in wider society for whom the findings will be generalised to. Other reasonable marking points gain credit.

Section B: Relationships/ Gender/ Cognition & Development

Relationships

8. **AO1 (1)** for the correct answer: **C**

9. **(a) AO1 (1)**

Clear outline of what is meant by equity in relation to romantic relationships. Examples include; emphasis on fairness and the need for each partner to experience a balance between their cost/ effort and their benefit/ reward. **For example:** ***Equity theory is an economic model of relationships based on the idea of fairness for each partner, whereby the costs and benefits are analysed but motivation to maintain the relationship comes from partner satisfaction and equality.*** Other reasonable marking points gain credit.

(b) AO3 (2)

Outline of one limitation of the equity theory of romantic relationships. Examples include; contrasting evidence such as Huseman et al (1987) or Clark and Mills (2012), emotional factors are hard to measure, individual differences, people are inherently selfish, cultural bias. **For example:** ***One limitation comes from Huseman, Hatfield, and Miles (1987) who proposed the concept of equity sensitivity to refine the traditional equity theory (which assumes everyone prefers equal ratios of input/ output) by identifying key individual differences in how people perceive and respond to equity in relationships. They make a distinction between 'entitled' individuals who feel that they deserve to gain more than their partner in a relationship and 'benevolent' individuals who are more prepared to invest by working harder to keep their partner happy. This shows there are individual differences in the equity of romantic relationships***. Other reasonable marking points gain credit.

10. **AO2 (4)**

Outline of two phases of relationship breakdown proposed by Duck; intra-psychic, dyadic, social, grave-dressing. Answers must reference the context in the question. **For example:** ***One phase of the model proposed by Duck is the intrapsychic phase where one person is privately dissatisfied with the relationship and is considering ending the relationship and worries about how to express this dissatisfaction to their***

partner. In the scenario, Chloe is in the intrapsychic phase because she wants to end the relationship and is worrying about telling partner who is unaware of how she feels, because he thinks everything is fine. Another phase of the model is the social phase which is when the breakdown has happened and other people are told about it and there is some negotiation about practicalities (e.g. division of assets/ money or childcare responsibilities). In the scenario, Millie is in the social phase as her friends and mum know about her relationship breakdown and her and her partner are taking steps to arrange what happens with the children and sort out the money side of things. Other reasonable marking points gain credit.

11. AO1 (6), AO3 (10)

Detailed outline and evaluation to discuss evolutionary explanations for partner preferences. Examples include; natural selection, intra-sexual selection, inter-sexual selection, examples from studies such as Davis (1990), Buss (1989) or Noë and Hammerstein (1995). Evaluation points can include the use of evidence to support or refute the theory, reference to animal studies, overemphasis on sexual relationships, individual differences, personality. **For example:** ***Evolutionary explanations for partner preference suggest that relationships are formed on the basis of reproductive success. This proposes that as a species adapts to its environment through natural selection, reproduction is based on identifying characteristics in a mate which aid survival. This ensures that genetic material from one generation is passed on to the next. Evolutionary theory states that males and females differ in their strategies to attract a mate and in their biological reproductive capabilities. This is explained by anisogamy, which is a form of sexual reproduction involving the fusion of two gametes that differ in size or form, and help define the biological distinction between males and females. Males produce numerous sperm cells which reproduce throughout their lifetime, while females produce few eggs, which are released in a limited period (puberty to menopause). A consequence of anisogamy is that there is no shortage of fertile males, whereas a fertile female is a rare resource. This difference is considered the root of sexual selection and means that males and females use different strategies when choosing their partners. Sexual selection refers to characteristics which increase the chances of reproduction. A male's best chance of reproducing is to have sex as often as possible with as many different females to increase his opportunity to reproduce. On the other hand, a female increases her chances of reproductive success by choosing mates who show evidence of genetic advantage (e.g. physical strength) and display signs they can provide resources to support her and her offspring. If females make good choices, then their offspring will inherit the positive features of their father and are therefore also more likely to be chosen by others to reproduce in the next generation. Whilst females prefer quality over quantity, anisogamy suggests that the best evolutionary strategy for a male is to have as many partners as possible. Noë and Hammerstein (1995) developed the 'biological market theory', which applies economic principles of supply and demand to biological interactions such as partner preference. This theory emphasises that partners are chosen based on the value they offer, with competition and trading often influencing evolutionary outcomes and social behaviours. This highlights inter-sexual differences in partner preference, through mate choices. In addition, to increase chances of reproduction, evolutionary theory suggests that males and females adopt different strategies for partner preference. Males use mate-guarding to protect their partner from other males, whereas females are more likely to use courtship rituals, forcing males to spend time or resources building up a suitable relationship. When applied to human relationships, evidence of evolutionary theory can be seen in behaviour. Females will often select partners based on their suitability to provide for her and potential offspring. Whereas males may demonstrate more jealousy over other males competing for their partners attention. Davis (1990) found in personal adverts males tend to seek out health and attractiveness and females look for higher status and***

resources. Other evidence to support evolutionary theories for partner preferences comes from Buss (1989) who conducted a survey of over 10,000 adults across 33 countries. He found that females reported valuing resource-based characteristics when choosing a male (such as their jobs) whilst men valued good looks and preferred younger partners more than females did. This was also supported by research conducted by Waynforth and Dunbar (1995) who found that women tended to list physical characteristics when seeking a partner in personal ads and men promoted their wealth or resources. These findings reflect sex differences in mate strategies due to anisogamy. There are also some explanations for female mate choice from animal studies which seem contrary to evolutionary ideas, for example Fisher (1930) suggested a 'good-taste hypothesis'. This proposed that female preferences can drive the evolution of arbitrary male traits that do not increase survival, such as exaggerated plumage. This means that female preference can evolve for traits that do not provide information about the male's quality and therefore do not reinforce the effects of natural selection. If females evolve a preference for a particular trait (not genetically advantageous), males bearing that trait will be selected as mates. In addition, evidence from biological studies with animals suggest that biochemistry may be responsible for mate choice. For example, Henley et al (2011) found that regions of the brain involved in olfaction and sexual behaviour, as well as sexually dimorphic regions (amygdala and hypothalamus), seem to play a role in mate choice in rats and mice. However, there are extrapolation issues when using animal studies to form generalisations to human relationships, as humans report more emotional connection in relationship formation and animal studies place too much emphasis on sexual reproduction in relationships. Evolutionary theories may also be out-dated when considering human relationships as partner preference has changed over time and some people choose not to have children and some choose to remain single. Other reasonable marking points gain credit.

Gender

12. AO1 (2)

Outline of what is meant by androgyny according to Bem. **For example:** ***Androgyny is a term described by Sandra Bem to explain when individuals possess a balanced combination of both masculine and feminine traits. For instance, they may show characteristics of athleticism (masculine) and affection (feminine).*** Other reasonable marking points gain credit.

13. AO1 (2)

Outline of what Freud meant by the Oedipus complex as an explanation of gender development. **For example:** ***Freud outlined the Oedipus complex to describe boys who experienced unconscious, sexual feelings for their mother and see their fathers as rivals, fearing castration. This occurs in the phallic stage of psychosexual development and is only resolved when boys identify with their father and internalise their father's gender identity.*** Other reasonable marking points gain credit.

14. AO2 (4)

Clear outline of Turner's syndrome and Klinefelter's syndrome with application to both mothers which is referenced appropriately. **For example:** ***Shaun is a male who is experiencing Klinefelter's syndrome. This is a chromosomal disorder which occurs in males with an extra X chromosome (XXY pattern). Boys with this disorder can have problems reading and writing and tend to get upset/ depressed easily and in some cases appear passive compared to other boys. This can be seen in the scenario when Shaun's mother says, 'he***

had problems at school'. Boys with Klinefelter's also have physical differences such as extra height or longer legs, small testes, and little to no facial hair. This could be seen in the scenario where Shaun's mother says he shows 'physical differences too'. In contrast, Willow is experiencing Turner's syndrome. This is a chromosomal disorder occurring in females with a missing X chromosome (XO pattern). They show characteristics such as good language and reading skills, so they often advance at school. In the scenario Willow's mother states 'she did better at schoolwork in some ways than other children'. However, physically girls with Turner's look different with shorter stature, no breast development, a short/ webbed neck, and infertility issues. This was described by Willow's mother who said 'physically there will always be noticeable differences'. Other reasonable marking points gain credit.

15. AO1 (6), AO3 (10)

Detailed discussion about what psychological research has told us about the influence of the social learning theory (SLT) on gender development. Examples include; reference to observation, imitation of role models, identification, vicarious reinforcement, role of mediational processes, examples from theories or studies showing the SLT. Evaluation from research studies which support or refute the social learning theory as an explanation of gender, issues with individual differences or gender/ cultural bias, contrasting explanations for gender development. **For example:** ***The social learning theory proposes that we learn through observation, imitation, and modelling. This can be used to explain how gender related behaviours are learned. For instance, children may imitate the behaviour of the same-sex role model they are exposed to in their family. Girls may copy the behaviour they see their mothers display in the home. The social learning theory (SLT) draws attention to the influence of the environment in shaping gender development. Children are influenced by role models they see throughout their lives, and these can change over time. In early childhood they may copy the behaviour of their parents or siblings, but later in life they may be more influenced by their peers or people in the media. Vicarious reinforcement can also influence gender development, if children see someone else receiving reinforcement for gender-appropriate behaviour they are more likely to copy that behaviour themselves. Perry and Bussey (1979) showed that children learn gender roles through imitation when models act in sex-stereotyped ways and that they prefer to imitate same-sex behaviour (boys and fathers/ girls and mothers). This research shows, rather than being less inclined to imitate, children are selective and base their imitation on whether a behaviour is considered appropriate to their own gender. Quiery (1988) suggests parents, particularly fathers, behave differently towards their children based on gender and fathers appear to reinforce sex-typed behaviour more than mothers. This shows how experiences in our social environment may shape our gender development. The idea of gender socialisation in the social learning theory suggests that children are brought up to behave in gender stereotypical ways. Fagot (1978) observed children at home playing with parents and found that boys and girls were reinforced for different behaviours. Boys were positively reinforced for playing with male toys and were punished for playing with female toys such as dolls. This supports the claim that parents shape gender-appropriate behaviour, suggesting that girls are positively reinforced to take on female gender roles, whereas boys are positively reinforced to take on male gender roles. Moreover, in other social observations boys are encouraged to be more active during play, but this may be a consequence of the fact that they are naturally more active due to hormonal differences, so it may not be the result of differential reinforcement. This suggests that the social learning theory fails to account for biological influences on gender role behaviour. In addition, Bussey and Bandura (1992) found that young children disapprove of gender-inconsistent play. They showed that gender development is driven by self-regulatory mechanisms and social cognitive factors rather than just gender constancy (the understanding***

that gender remains the same). They observed that children as young as 2–4 years old engaged in gender stereotypical behaviours, with self-approval for same-sex behaviour and self-criticism for cross-sex behaviour emerging as they got older. This evidence offers support for the social learning theory as an explanation of gender development. However, it is believed that cognitive processes play a greater role in the learning of gender than the social learning theory allows. Bandura considered this in his explanation of mediational processes in social learning. Bandura (1977) suggested four cognitive processes which were central to social learning theory; attention, retention, reproduction, and motivation. These mediational processes help to explain how children retain behaviour they have observed and reproduce it when they feel motivated to do so. However, the social learning theory has difficulty explaining how children's understanding of gender changes over time and it does not explain how cultural influence can change behaviour over time. Some aspects of gender role behaviour are universal for all cultures; however, these social norms are subject to change over time. For example, Hofstede (2001) argues that in industrialised cultures the changing status and expectations of women are a function of their increasingly active role in the workplace and away from the domestic home. This has led to a breakdown of traditional gender stereotypical roles. Other explanations for gender development may be more appropriate for change over time. Other reasonable marking points gain credit.

Cognition & Development

16. AO2 (4)

Evidence of knowledge of the theory of mind and the Sally-Anne study to explain the likely response in the scenario. **For example:** ***In the Sally-Anne study the belief question is answered incorrectly by autistic children as they lack a theory of mind. In this scenario, William may respond by saying that 'Dad will look for the ball in the bucket' because this is the place his brother Henry placed it (in reality). William has autism so may not be able to see things from his father's perspective and therefore lacks a 'theory of mind'. William may not realise that, being indoors, his father did not see Henry put the ball in the bucket. Autistic people can be described as 'mind-blind' and this may be the case with William. Therefore, he may be unaware of his father's point of view and just responds according to what he knows himself, that he saw his brother Henry place the ball in the bucket. He assumes that his father will have the same perspective as him.*** Other reasonable marking points gain credit.

17. AO1 (2)

Brief outline of what Piaget means by class inclusion. **For example:** ***Piaget explained that class inclusion is a cognitive ability to understand that objects can simultaneously belong to a subclass and a larger, superordinate class. Therefore, it is the ability to understand the difference between subordinate classes/ subcategories and superordinate classes which are broader/ more global categories. For instance, knowing an apple (subcategory) is an example of a fruit (global category)***. Other reasonable marking points gain credit.

18. AO1 (2)

Brief outline of the difference between assimilation and accommodation according to Piaget. **For example:** ***Piaget's theory explains intellectual growth through the concept of cognitive development, which occurs through the processes of assimilation and accommodation. Assimilation is using an existing schema to deal with a new object or situation, whereas accommodation happens when an existing schema does not work***

and needs to be changed to deal with a new object or situation. Other reasonable marking points gain credit.

19. AO1 (6), AO3 (10)

Clear discussion of what Baillargeon's research has told us about early infant abilities. Examples include; focus on infants' knowledge of the physical world, investigations of core knowledge theory, violation of expectation studies, specific studies such as tall/short rabbit and window (Baillargeon and Graber 1987) drawbridge and box (Baillargeon 1995); truck and ramp (Baillargeon 1987); tall/short carrot and window (Baillargeon and DeVos 1991); Minnie Mouse (Aguiar and Baillargeon 1999). Evaluation includes the challenge to Piaget's age at which infants can represent objects, Baillargeon's improvements on Piaget's object permanence studies, parallels between Baillargeon's view of an innate physical reasoning system and other theories about innate abilities, e.g. Chomsky's innate language acquisition device, discussion of scientific value of Baillargeon's paradigm including; use of infants in controlled experiments, reliance on inference and the interpretation of 'looking' and 'surprise' as dependent variables or wider issues and debates e.g. nature v nurture, biological determinism. **For example:** ***Renee Baillargeon wanted to show how young children develop a cognitive understanding of the world around them and her research furthered our understanding of Piaget's theory of cognitive development. Baillargeon's explanations of early infant abilities include knowledge of the physical world and violation of expectation research. Knowledge of the physical world refers to our understanding of how the physical world works. For example, object permanence in infants (knowing that an object still exists despite not being seen). Violation of expectation (VOE) research is a method of investigation studying an infant's knowledge of the world. The idea is that if children understand how the physical world operates then they will expect certain things to happen in given situations. VOE research is a technique based on the idea that an infant will show surprise when witnessing an impossible event. If children show surprise in given situations it means they have an intact knowledge of the world, as the expected behaviour did not occur. Baillargeon suggested that young infants had a better understanding of the world than Piaget believed. She investigated violation of expectation by testing how long it took for children to look at novel objects or people. For example, Baillargeon & Graber (1987) showed 24 babies, aged 5-6 months, a tall and a short rabbit passing behind a screen with a window. A baby with object permanence would understand that as the rabbits are passed behind the screen (hidden), they are still present. In this study there were two test conditions, an expected condition where the short rabbit cannot be seen behind the screen but is expected to come out the other side, and a second condition, which was unexpected where the tall rabbit could not be seen behind the screen in the window, as would be expected. They found that infants looked on average longer at an unexpected condition compared to an expected condition. In another study, Baillargeon (1987) habituated (show until interest is lost) 3-month-old infants to a truck rolling down a track and behind a screen. A box was introduced and placed either beside the track where the truck would roll past it or on the track where it should block the truck's path. The screen was then replaced and the truck sent down the track as before. Baillargeon found again that the infants looked significantly longer at this impossible event. Baillargeon's studies indicate that three-month-old infants have an understanding of objects that Piaget says do not appear until nine to twelve months. However, Schoner and Thelen (2004) argue that infants might look longer at impossible events simply because they are visually more interesting or involve more movement, rather than because a physical rule was broken. Nevertheless, Bower et al (1971) support Baillargeon's research by demonstrating that four-month-old infants will move their gaze towards an expected event. They showed children a moving train which became temporarily hidden behind a screen before re-***

emerging on the other side. The children were able to understand that the train was out of sight but would be expected to reappear. Bower (1974) argued that visual tracking studies reveal that 5-month-old infants can represent objects in space, something Piaget attributes to far older infants. However, there are some limitations to the use of controlled experiments with children, in that they may not represent real life and can lack ecological validity. Under controlled conditions there is a reliance on researchers making inferences from the children, especially given they are so young and cannot vocalise their thoughts. All these studies assume that factors within the environment are responsible for cognitive ability when biological evidence suggests this may not be the case. In later research, Baillargeon et al (2012) proposed a theory of infant physical reasoning, suggesting we are born with a physical reasoning system (PRS), which is our basic understanding about the world around us. This innate system provides basic principles such as persistence (objects exist in time and space) and solidity (objects cannot pass through each other), which allow infants to learn more complex details quickly through experience. This supports the core knowledge theory which suggests that infants are born with innate, cognitive abilities such as object representation which form the foundation for understanding the world around us. This is supported by Hespos & Van Marle (2012) who claim that Baillargeon's ideas help us to explain our universal understanding of the physical world. They argue that the universal understanding of the physical world is innate, as we all have a good basic understanding of the physical world regardless of culture or experience. This wealth of research has helped our understanding of how cognitive abilities are developed in infancy and early childhood. Other reasonable marking points gain credit.

Schizophrenia

20. AO1 (2)

Brief explanation of how gender and culture bias might affect the validity of a diagnosis using DSM or ICD.
For example: ***Gender bias may affect the validity of a diagnosis using the classification systems (DSM/ ICD) when generalisations are made for both males and females. Gender bias is the tendency to ignore or exaggerate differences in both men and women, so that the true picture is often distorted. Castle et al (1993) found that the male incidence of schizophrenia was twice that of females using diagnostic criteria from DSM-4. Culture bias occurs when cultural factors are overemphasised or not considered in the diagnosis process. If people are diagnosed based on cultural factors like race or ethnicity, the validity of their diagnosis is affected. Whaley (2004) believes that cultural bias may affect diagnosis as each culture has a different way of expressing their symptoms, which could lead to misinterpretation by clinicians from another culture. This reduces the validity of the diagnosis process.*** Other reasonable marking points gain credit.

21. AO1 (3), AO3 (5)

Clear outline of the reliability and/or validity in relation to the diagnosis and classification of schizophrenia, with effective evaluation. Examples include; definitions of reliability - level of agreement on the diagnosis by different psychiatrists across time and cultures; stability of diagnosis over time given no change in symptoms, definitions of validity – the extent to which schizophrenia is a unique syndrome with characteristic, signs and symptoms, identification of issues such as range of symptoms across individuals, comorbidity and symptom overlap. Evaluation can include the use of evidence to support or refute the reliability or validity of the classification systems, wider implications such as labelling or cultural bias.

For example:

The reliability of diagnosis is based on the idea that a patient will receive the same diagnosis from either a series of different assessment measures (test re-test) or by two or more independent psychiatrists (inter-rater). Reliability is defined when agreement or concordance is seen in the results. The two main classification systems used are the DSM and ICD. The DSM (American version) helps clinicians classify mental disorders into different types and identifies the symptoms associated with them. Whereas the ICD (international version), also considers the physical aetiology associated with mental disorders. Goldstein (1988) found high levels of inter-rater reliability (+0.8) when patients were diagnosed using the DSM-3 for schizophrenia. However, Rosenhan (1973) found that DSM-3 was not a valid diagnostic tool as all the pseudopatients in his study were diagnosed incorrectly with a diagnosis of schizophrenia. Cheniaux et al (2009) investigated the reliability of schizophrenia diagnoses in 100 patients and found poor reliability, as psychiatrists were interchanging between DSM and ICD. The process of diagnosis would be more credible if one classification were used universally, yet this is not the case at present. This lack of a single, universal diagnostic classification system could be due to the complexity of human biology, evolving medical knowledge, or differing cultural and socio-economic factors across the world. Despite this both classification systems continue to be revised to maintain their reliability and validity, and both have been shown to agree. Jansson et al (2002) compared ICD-10 with DSM-4 and found a high rate of agreement between the two suggesting ICD-10 is a valid diagnostic system. There are, however, issues with symptom overlap or comorbidity. Buckley et al (2009) found that half of all patients diagnosed with schizophrenia also had a diagnosis of depression. This highlights issues with the validity of the classification systems which could result in mistreatment of patients or wider issues such as labelling. Other reasonable marking points gain credit.

22. AO1 (2), AO2 (2)

Outline of the cognitive explanation of dysfunctional thought processing with reference to the scenario. **For example:** ***The cognitive explanation of dysfunctional thought processing for schizophrenia suggests that symptoms are caused by faulty or irrational thought processes. For instance, Simon et al (2015) suggests that lower than usual levels of information processing in schizophrenic patients indicate that cognition is likely to be impaired. These impairments would be evident in the symptoms of schizophrenic patients such as auditory hallucinations or delusions. This might explain Mya's experiences as she reports hearing voices telling her to sabotage the data system at work. These auditory hallucinations are disrupting her thought processing and the intrusive thoughts she is experiencing are consuming her daily and she is struggling to focus on her work.*** Other reasonable marking points gain credit.

23. AO1 (2), AO3 (4)

Brief outline of the genetics and neural correlates explanations for schizophrenia with a brief discussion of each. Examples include; reference to genes/ DNA with supporting evidence from twin or adoption studies, reference to the dopamine hypothesis, brain size/ function, brain structure such as enlarged ventricles, with supporting evidence/ examples. Evaluation can also include limitations of this explanation, problems with reductionism/ determinism or comparison with other explanations. **For example:** ***The genetic explanation of schizophrenia suggests that innate, inherited characteristics are responsible for the vulnerability in developing the disorder. Kendler (1985) suggested that first-degree relatives of those with schizophrenia are 18 times more at risk than the general population. Concordance rates in research are calculated to show the level of genetic agreement in twin and family studies. The higher the concordance rate, the***

stronger the genetic link to schizophrenia. Supporting evidence from Gottesman (2010) found a strong link for schizophrenia between parents and their offspring. The research showed that offspring are 31.7 times more likely to develop schizophrenia when both parents have been diagnosed with it. However, this evidence raises issues with generalisation back to the wider population. Other research from twin studies offer support for the genetic explanation. Gottesman (1991) found that MZ twins have a 48% risk of getting schizophrenia whereas DZ twins have a 17% risk rate. This is evidence that the higher the degree of genetic relativeness, the higher the risk of getting schizophrenia. An alternative biological explanation focuses on the biochemistry and structure of the brain. The original dopamine hypothesis put forward by Van Rossum (1967) stated that there was hyperactivity of dopamine transmission, which resulted in symptoms of schizophrenia and drugs that blocked dopamine reduced psychotic symptoms. Other evidence from antipsychotic drugs such as clozapine have been found to antagonise dopamine activity and reduce positive psychotic symptoms. In addition, post-mortem studies like Owen et al (1987) have found people with schizophrenia have a larger number of dopamine receptors in the brain. However, Davis et al (1991) suggested that high levels of dopamine are not found in all individuals with schizophrenia. Moreover, post-mortem studies are limited as active brain function cannot be observed, whereas using brain scan techniques like fMRI or CAT scans are more scientific. Andreasen et al (1990) conducted a controlled study using CAT scans and found a significant enlargement of the ventricles in patients with schizophrenia compared to a control group. These studies offer strong support for the biological explanations for schizophrenia. Other reasonable marking points gain credit.

24. AO1 (2), AO3 (2)

Brief outline of cognitive behaviour therapy (CBT) is used to treat schizophrenia with a description of one limitation of using CBT to treat schizophrenia. **For example:** ***Cognitive behaviour therapy (CBT) is used to treat patients with schizophrenia by helping them manage the cognitive symptoms of the disorder like hallucinations, delusions, or faulty thought processes. In CBT, the irrational beliefs or delusional thoughts are challenged or disputed by the therapist. The patient is also taught techniques like positive self-talk or coping strategies which encourage them to target or manage the symptoms more effectively. This is done by reality testing and education. CBT has been found to be an effective treatment for schizophrenia, as Pontillo et al (2016) found reductions in frequency and severity of auditory hallucinations when using CBT. A problem with CBT is that it requires self-awareness and a willingness to engage with the process, which can be extremely difficult with schizophrenic patients. Their positive symptoms can lead to lack of awareness/ loss of reality, and their negative symptoms can result in a reluctance or inability to engage with the therapy. It is also a timely and costly process compared to other treatments, and there are increased risks of attrition (drop out).*** Other reasonable marking points gain credit.

<u>Eating Behaviour</u>

25. AO1 (2)

Brief outline of the role of ghrelin in the control of eating behaviour. **For example:** ***Ghrelin is often termed as the 'hunger hormone' and acts as a signal to the hypothalamus in the brain, specifically the arcuate nucleus. When the stomach is empty, ghrelin is released, signalling the brain to initiate eating. It causes levels to rise before meals and decrease after eating, therefore directly controlling meal initiation, energy homeostasis, and stimulating reward-based eating.*** Other reasonable marking points gain credit.

26. AO1 (2), AO3 (4)

Brief outline and discussion of one or more biological explanations for obesity. Examples include; genetic theory, candidate genes like FTO, DRD2 or the 'thrifty-gene', family studies, malfunctioning of hypothalamus, low levels of leptin, low levels of dopamine or serotonin. Evaluation can include reference to supporting/ refuting evidence, issues with comorbidity, or comparisons with psychological explanations. **For example:** ***The genetic theory for obesity suggests that it runs in families and people inherit a predisposition to become obese. One idea is based on candidate genes, like the 'thrifty gene' (Neel, 1962) which has been linked to individuals with obesity. In ancestral times, genes that enabled individuals to quickly store fat during times of plenty (to survive subsequent shortages) offered a survival advantage. However, this is not a requirement in modern day as food is abundant, and these 'thrifty' genes lead to excessive fat deposition and metabolic disorders. In addition, there is much variation seen within families as not all members are obese, limiting this genetic argument. Another explanation is based on the neural explanation of obesity which suggests that the hypothalamus is malfunctioned, particularly the ventromedial hypothalamus (VMH). This serves as a primary satiety centre, regulating appetite by suppressing food intake and preventing hunger. If this is damaged or faulty, people may overeat leading to an increased risk of obesity. However, this explanation is reductionist and fails to consider free will in the decision-making process of overeating. Other neural evidence suggests low levels of serotonin have also been linked with cravings for energy-rich foods, which are high in fats and sugars, which subsequently cause weight gain (Wurtman, 1995). Serotonin normally signals to the VMH in the brain that a person has eaten to satiety. This may also explain why some people are more predisposed to obesity. However, these biological explanations fail to account for individual differences in eating behaviour as well as other psychological factors like stress or anxiety.*** Other reasonable marking points gain credit.

27. AO3 (2)

Brief outline to explain one limitation of the evolutionary explanation of food preferences. **For example:** ***One limitation is that the evolutionary approach does not provide a full explanation for contemporary food preferences, as food preference is also influenced by food availability, and social and cultural factors. For instance, the food industry has exploited our evolutionary bias towards sugary foods, leading to the 'obesogenic' diet, high in sugar and carbohydrates and low in fruit and vegetables.*** Other reasonable marking points gain credit.

28. AO2 (4)

Explanation using the data in the table which relate to psychological explanations for the success and failure of dieting. **For example:** ***The data in table 2 shows that restrained eaters ate on average more cakes than unrestrained eaters. Psychological explanations like restraint and boundary approaches would argue that restrained eaters have an extended biological satiety boundary as they are dieting. Before this boundary they have a cognitive boundary, which they try to stay below when dieting. The preload takes them beyond this boundary and the 'what the hell effect' kicks in, and they eat to their biological satiety boundary. Whereas unrestrained eaters are quite full after the preload and simply must eat less to reach their biological satiety boundary. So restrained eaters paradoxically eat more after a preload than unrestrained eaters.*** Other reasonable marking points gain credit.

29. AO1 (2)

Outline of the difference between restraint theory and disinhibition. **For example:** ***Restraint theory suggests that strict, conscious restriction of food intake leads to a paradox of overeating, whereas disinhibition describes a loss of that control, leading to overeating in response to emotional, social, or environmental cues. Restraint theory creates a 'diet boundary' where individuals constantly monitor their food intake, whereas with disinhibition, individuals break their own rules, give up on restrictions, and end up overeating.*** Other reasonable marking points gain credit.

30. AO1 (3), AO3 (5)

To discuss the social learning theory as an explanation for anorexia nervosa. Examples include; reference to features of the SLT, media influence, family influences, interaction with personality factors. Evaluation can include supporting or refuting research evidence, individual differences, comparisons with alternative explanations like biology. **For example:** ***The social learning theory (SLT) claims that behaviour is learned through observation and imitation usually of role models we identify with. Hill et al (1989) found similarities between mother-and-daughter pairs with restrained eating and dieting behaviours amongst children as young as 10 years old. They also show that such children also tend to overeat in a behavioural test of restraint. This family influence can play a part in eating behaviour. Individuals with anorexia may look to other people in their social environment and want to copy the behaviour of these role models. For instance, a teenage girl might identify with a female popstar who appears skinny, promoting them to see this as a favourable weight. However, it could be that some individuals have a personality type which predisposes them to develop anorexia instead. The SLT also suggests behaviour is influenced by vicarious reinforcement, seeing someone else receive reinforcement increases the likelihood it will be imitated. With anorexia, individuals might see their peers receiving positive reinforcement through praise or attention from others regarding their body weight. This increases the likelihood anorexic individuals will copy their peers to receive the same praise. The media has increased the prevalence of anorexia with many young people now exposed to more pressure to be thin/ skinny via film/ TV, magazines, or social media. Becker et al (2002) studied eating attitudes amongst Fijian girls following the introduction of TV in 1995. After exposure to TV, it was found the girls expressed a desire to lose weight and their attitudes towards eating had changed negatively. In addition, Cooper (1994) suggested anorexia is more common in western societies than non-western societies, as women are often rewarded (by attention and admiration) for looking slim. However, cultural factors cannot be the only reason for the development of eating disorders like anorexia. The great majority of young women who are exposed to cultural pressures towards slimness do not develop anorexia. This argument fails to consider individual differences and biological influences like genetics. Tozzi et al (2005) supports the contrasting biological explanation and suggests that people may inherit a vulnerability towards developing eating disorders.*** Other reasonable marking points gain credit.

<u>Stress</u>

31. AO1 (2) for the correct answers:

A: general adaptation syndrome

B: immunosuppression

32. AO3 (6)

Clear evaluation of personality type as an explanation for stress. Examples include; personality type A and stress-related illness, evidence to support or refute the explanation, problems with cause and effect, individual differences, and contrast with alternative explanations like biology. **For example:** ***Supporting evidence for personality type as an explanation for stress comes from Friedman and Rosenman (1950). They suggested that individuals with a type A personality were significantly more likely to experience stress-related illnesses like coronary heart disease. A type A personality is identified as a behaviour pattern characterised by competitiveness, ambitiousness, and perfectionism. Individuals with this type of personality are likely to be fast-paced and often multitask with an urgency to take charge and get things done. However, there is an issue with cause and effect in this explanation, as type A personalities may expose themselves to more stressful situations. In contrast, Eysenck (1964) suggested that individuals with neuroticism as a personality trait are more prone to stress. People with this personality type tend to experience higher emotional distress, reduced resilience, and have more frequent perceptions of events as stressful. These personality explanations fail to account for biological factors implicated in stress responses or stress-related illnesses. For instance, dysfunction in the hypothalamic-pituitary-adrenal (HPA) axis has been linked to chronic stress and Herman et al (2016) found that stress responses are inhibited by negative biofeedback mechanisms, suggesting a physiological cause in the stress response.*** Other reasonable marking points gain credit.

33. AO1 (2), AO2 (2)

Brief outline of gender differences and the role of social support in coping with stress. Answers must relate to the scenario in the question. **For example:** ***There are several differences between men and women and how they respond to stress. In the scenario, Simon thinks about how to solve problems at work, whereas Claire worries a lot about her family. One suggestion is that men are more likely to activate the fight-or-flight response whereas women adopt a 'tend and befriend' approach. The male fight-or-flight response involves high levels of cortisol and adrenaline, promoting rapid action or aggression. In contrast the 'tend and befriend' approach is focused on making a calming, social connection to reduce stress.***
There are also gender differences in coping strategies with women seeking more emotional support and men needing more instrumental, practical advice. In the scenario, Simon uses instrumental support where he asks his friends for practical help. In contrast, Claire uses emotional support where she relies on her friends to cheer her up. Other reasonable marking points gain credit.

34. (a) AO1 (4)

To describe how the Social Readjustment Rating Scale (SRRS) measures stress.

For example: ***The Social Readjustment Rating Scale (SRRS) also known as the Holmes and Rahe Stress Scale was developed in 1967, and measures stress by assigning numerical "Life Change Units" (LCUs) to 43 specific life events, such as marriage or job loss. Individuals check events experienced within the past year, and the total sum of LCUs indicates the cumulative stress load and risk of illness. Events are ranked by severity where higher weights indicate a greater need for life adjustment. For example, the 'death of a spouse' is rated as the most stressful with a value of 100, followed by 'divorce' with a value of 73. At the opposite end of the scale is 'minor violations of the law' with a value of 11. The total score on the scale estimates the risk of developing a health issue and a score of 300 or more suggests an 80% chance of illness.*** Other reasonable marking points gain credit.

(b) AO3 (2)

Brief explanation of one limitation of the SRRS for measuring stress. Examples include; subjectivity with self-report, individual differences, issues with causation. **For example:** ***One limitation of the SRRS is there are issues with validity. For instance, stressful experiences are subjective and may not result in the same response for everyone. For example, there may be certain life events on the SRRS that could be stressful for some people but not for others, like divorce. This marital separation is highly rated on the scale, but some individuals may feel a sense of relief rather than stress after divorce is agreed.*** Other reasonable marking points gain credit.

35. AO1 (4), AO2 (4)

Description of stress inoculation therapy as a way of managing stress with clear application and reference to how Hari's stress can be managed in the scenario. **For example:** ***Stress Inoculation therapy (SIT) is one way of managing stress, which was an idea designed by Meichenbaum (1985). He argued that just as people can be inoculated against a flu virus, they could also be inoculated against stress and become stress resistant. SIT involves cognitive restructuring or changing the patient's thoughts about the source of stress and their ability to control it. It is based on the idea that thoughts affect emotions and behaviour, so by changing thoughts, people will change their emotional response and subsequent behaviour. There are three stages of SIT; conceptualisation (identifying negative thoughts and situations that provoke stress), skill acquisition and rehearsal (learning coping strategies, e.g. relaxation and positive self-talk), and application (where newly acquired skills are put into practice in role play or visualisation). If Hari had stress inoculation therapy, he would need to go through all three stages. Hari firstly needs to identify his negative thoughts, e.g. that 'he is not good enough', or that 'his workmates will laugh at him', and 'his supervisor will tell him off'. Hari then needs to develop strategies to use when he is stressed such as positive self-talk like 'I am as good as anyone at this job' or 'my workmates are good natured and fun' or 'my supervisor knows I work hard'. This will help Hari build confidence in himself and reduce the stress he is experiencing at work. He could also use relaxation techniques like breathing techniques before he goes into work each day to calm his nerves. Hari could practice these skills at home or with the support of a therapist in a clinic. This SIT would help Hari manage his stress.*** Other reasonable marking points gain credit.

Section D: Aggression/ Forensic Psychology/ Addiction

Aggression

36. AO1 (2)

Clear description of a fixed action pattern. **For example:** ***A fixed action pattern (FAP) is an innate, adaptive sequence of stereotypical, ritual behaviours demonstrated by animals in response to specific external stimuli, such as sound. They are universal within a species, so all members of a species show the same***

pattern of behaviour. For instance, a FAP in birds occurs when the sight or sound of a parent returning from flight triggers gaping in chicks, ready to be fed. Other reasonable marking points gain credit.

37. AO1 (2)

Brief outline of the frustration-aggression hypothesis as an explanation for human aggression. **For example:** ***Dollard and Miller (1939) coined the frustration-aggression hypothesis and stated that frustration always results in aggression and aggression is always caused by frustration. They argued that frustration blocks any goal-directed action which leads to tension which can only be relieved by an aggressive act. This is based on the psychodynamic approach which claims that aggression is an example of catharsis (release of negative emotion).*** Other reasonable marking points gain credit.

39. AO1 (2), AO2 (2)

Clear description of neural and/or hormonal mechanisms in aggression and reference to the scenario in the question. **For example:** ***Neural explanations of aggression suggest the limbic system (particularly the hypothalamus and amygdala) is responsible for aggressive behaviour. Brain scan studies using fMRI like Gospic et al (2011) have shown heightened amygdala activity during aggressive responses. The hormone testosterone has also been positively correlated with aggression. In the scenario Christopher is a 14-year-old boy who is likely to be experiencing an increase in testosterone in puberty. In addition, the neurotransmitter serotonin has been linked to aggressive behaviour. Low levels of serotonin are associated with increased susceptibility to impulsive behaviour, aggression and a general lack of self-control. Virkkunen et al (1994) found lower levels of serotonin in impulsive offenders compared to non-impulsive offenders. In the scenario, Christopher has been feeling moody and low after moving to a new area, this could be due to a drop in serotonin (mood stabilising neurotransmitter). These neural and hormonal mechanisms might help explain Christopher's aggression.*** Other reasonable marking points gain credit.

40. AO1 (6), AO3 (10)

Clear description with detailed evaluation of the social learning theory of human aggression. Examples include; emphasis on SLT processes, identification and internalisation, vicarious reinforcement, mediational processes. Evaluation can include the use of evidence to support or refute the SLT as a theory of aggression, issues with causation, determinism, ignoring biological or cognitive factors. **For example:** ***The social learning theory (SLT) claims that behaviour is learned through observation and imitation usually of role models we identify with. Bandura (1961) demonstrated this with his experiment using the bobo doll. He showed that children would imitate the physical and verbal aggression of a role model they observed acting aggressively. Bandura suggested that children identify with role models particularly of those of the same sex, as he found boys were more likely to imitate the behaviour of male role models. This offers support to the SLT of aggression by showing under controlled conditions that children do imitate aggressive behaviours observed. However, such studies have been criticised for validity. For example, in one condition the aggressive adult was seen to be hitting a bobo doll, which is unlikely to occur in real life, and therefore lacks ecological validity. Although the children did imitate behaviour in Bandura's study, in real life they may not behave like this and show the same aggressive behaviour outside the artificial lab conditions. Like behaviourism, the SLT suggests that behaviour that is positively reinforced will be more likely to be repeated. Social learning theorists also believe that if an individual sees someone else rewarded for a***

particular behaviour they are also more likely to imitate the behaviour. This is known as vicarious reinforcement. With respect to aggression, if a person sees someone else being rewarded (vicarious reinforcement) for behaving aggressively then that person is more likely to be aggressive themselves in the future. This was also demonstrated in experimental research by Bandura (1965). According to the SLT behaviour is not automatically imitated but it depends on mediating cognitive factors and Bandura (1977) suggested four stages or mediational processes; attention, retention, reproduction, and motivation. For instance, to learn aggressive behaviour, firstly a child must observe a model acting aggressively and pay attention to the aggressive behaviour. They then store/ retain the information in memory and reproduce this when they are motivated to do so. Psychologists also argue that the model must have similar or high status for the child to be influenced. These mediational processes have been evident in real life copycat cases like that of the murder of Jamie Bulger. The SLT is a very deterministic explanation of aggression suggesting environmental factors such as upbringing are responsible for behaviour. However, this fails to account for individual differences in personality and free will in the decision-making process of behaviour. In the case of Bandura's (1961) study, the children could have simply chosen to be aggressive or already had a temperament prone to aggression or could have been influenced by the artificial nature of the experiment. The SLT does, however, have practical applications for the education of teachers and parents, particularly when considering their influences as role models. It could be used to teach parents or siblings how to show appropriate and calm behaviour to children so that they can grow up to become less aggressive. A further criticism of SLT is that it can be seen as environmentally oversimplified, as it places too much emphasis on the role of nurture/ upbringing and ignores the role of nature such as biology. Contrasting evidence on aggression suggests that genetics, hormones, or neurotransmitters are implicated in aggressive behaviour. McGuffin and Gottesman (1985) found an 87% concordance rate in MZ twins and a 72% in DZ twins, supporting the role of genetics in aggression. Research from studies like Dabbs et al (1987) in prisons has shown that prisoners with high testosterone levels are more likely to have committed violent crimes and are more aggressive in prison, linking aggressive behaviour to testosterone levels and biology (nature) not nurture (environment). However, this evidence is correlational which raises issues with cause and effect. Nevertheless, when understanding aggressive behaviour, a more multidimensional approach should be considered as aggression is a complex behaviour. Other reasonable marking points gain credit.

Forensic Psychology

41. AO3 (2)

Brief outline of one limitation of categorising offenders as either organised or disorganised offenders in offender profiling. Examples include; problems with the top-down, typology approach. **For example:** ***One limitation of categorising offenders as either organised or disorganised offenders in offender profiling is that it creates a distinction which is an oversimplification of the types. This affects validity as it could be difficult to categorise some offenders as one type or another so may not represent their true personality or behaviour, which raises issues with the usefulness of this method.*** Other reasonable marking points gain credit.

42. AO2 (4)

Clear explanation of how an anger management therapist could help Paul. **For example:** ***A therapist would start with a cognitive appraisal of Paul's thoughts and feelings where Paul would be helped to understand***

the specific triggers or cues which precipitate his anger. This would help him cognitively prepare by understanding his response to things like when he hears 'people telling stupid jokes in a bar'. In the acquisition stage, the therapist could teach Paul skills to keep himself calm so his pulse does not race, for instance, encouraging him to have positive self-talk statements, like 'I am calm and relaxed'. In the application stage, the therapist could give Paul a chance to rehearse difficult situations using role-play so he could get used to using self-control and not be provoked by other people talking in a bar. Paul could practise his new skills during the week and make a diary of his performance in what he feels are anger provoking situations. Other reasonable marking points gain credit.

43. AO3 (2)

Clear outline of one limitation of anger management as a way of dealing with offending. Examples include; time/ cost implications, motivation of the offender, long-term effectiveness, individual differences. **For example:** ***One limitation of anger management as a way of dealing with offending is that it requires the skills of a trained therapist so could have limited availability in prisons and may be expensive when compared to reward-based behaviour management programmes like token economy. Blackburn (1993) suggests that whilst anger management has some short-term benefits there is little evidence that it reduces recidivism in the long-term.*** Other reasonable marking points gain credit.

44. AO1 (4), AO2 (4)

Outline of differential association theory in the context of offending with direct reference to the scenario in the question. Examples include; Sutherland's differential association theory, learnt behaviour, reinforcement from family and friends, with clear application to the context in the scenario. **For example:** ***The differential association theory was proposed by Sutherland (1939) who suggested offending behaviour is learned from those in our social environment, or whom we have been socialised with. Differential association claims that criminal behaviour allows individuals to learn the values, attitudes, techniques, and motives from other people. It can arise from two factors; learned attitudes towards offending, and the learning of specific offending techniques. In the scenario it states that 'three generations of several families' are offending and 'committing similar crimes themselves'. This is a possible indication that specific techniques had been passed down from one generation to the next. Farrington et al (2006) supports this idea after they conducted a longitudinal study using 411 boys from London. Their results showed that 41% had criminal convictions between the ages of 10 and 50 years, and 91% of those who started committing crimes between 10 and 13 years were reconvicted at least once. This was attributed to poor parenting, poverty, and family criminality. This supports the statement in the scenario that whole families show deviant behaviour, as 'they found that sons and grandsons of offenders often commit similar crimes themselves'. This suggests that criminal behaviour is accepted as the norm within the family. The theory also explains how the expectations and attitudes of those around us (family, friends etc) reinforce our behaviour (criminal or otherwise) through acceptance and approval. This can be seen in the scenario as 'most friends and neighbours were not concerned by the offending behaviour, and some said it was a good way to behave'. This shows that the criminal social norm is shown by friends and neighbours who also accept the behaviour.*** Other reasonable marking points gain credit.

45. AO1 (3), AO3 (5)

Clear discussion of neural explanations for offending behaviour. Examples include; imbalances in biochemistry like adrenaline and serotonin, effects from the MAOA gene on dopamine production, reduced

activity in the limbic system. Evaluation can include issues with causation, reductionism, biological determinism, comparisons with non-biological explanations of offending. **For example:** ***Neural explanations of offending behaviour focus on neurochemicals and structural differences in the brain. Hormones such as testosterone and adrenaline have been associated with aggressive behaviour. Dabbs et al (1987) found that prisoners with high testosterone levels are more likely to have committed violent crimes and are more aggressive in prison. In addition, low levels of serotonin in the brain have been linked to aggressive behaviour. Evidence to support this comes from Brunner et al (1993) who conducted a case study of a family of violent criminals that showed differences in the way their serotonin was metabolised. Moreover, structures in the brain, specifically the limbic system and the amygdala are associated with aggression. The limbic system which includes the hippocampus and the amygdala process emotional information. Evidence from Raine et al (1997) found murderers to have less activity in the left side of the hippocampus and amygdala and more activity in the right side, therefore they are less likely to experience emotion. This study is limited in terms of generalisation as only a small group of 41 murderers were tested. The dysfunction in the murderers brains may have contributed to their crime, however, this explanation is too reductionist and ignores cognitive or social factors in offending. However, studies like Raine et al (1997) which used brain scans (PET) help to increase the objectivity and reliability of the findings that link neural explanations to offending behaviour. Despite this, it is impossible to demonstrate clear cause and effect with neural explanations, as other factors may be responsible for brain differences such as diet or brain damage from birth. Also, not everyone with problems in their neurology go on to commit crime, which suggests that the neural explanation of offending fails to consider individual differences such as personality.*** Other reasonable marking points gain credit.

Addiction

46. AO1 (2) for the correct answers: **A** and **D**

47. AO1 (6)

Clear description of how brain neurochemistry is involved in nicotine addiction. Examples include; reference to the VTA and nicotine receptors, the dopamine reward centre, nicotine regulation model, repeated activation creates tolerance/ addiction, role of GABA. **For example:** ***Nicotine addiction can be explained by theories of brain neurochemistry, such as Dani and Heinemann's (1996) desensitisation hypothesis. This explains how nicotine creates addiction and tolerance, specifically focusing on the behaviour of nicotinic acetylcholine receptors (nAChRs) in the brain's reward pathways. It is believed that nicotine binds to nAChRs, specifically in the mesolimbic dopamine system which includes the ventral tegmental area and nucleus accumbens. This causes the release of dopamine in the mesolimbic system which activates the reward system in the brain. Initially nicotine activates the receptors causing a release of dopamine, which gives individuals a feeling of euphoria and pleasure and helps to relieve anxiety. However, with continued or rapid consumption usually through smoking, nicotine remains in the brain, causing these receptors to become 'desensitised'. This means they become less sensitive to stimulation and chronic desensitisation changes the way the brain naturally processes dopamine and can lead to cravings and subsequent addiction. Through repeated activation, more nicotine is required to create the same effect (tolerance) which results in cravings and formulation of addiction.*** Other reasonable marking points gain credit.

48. AO3 (6)

Clear outline of one strength and one limitation of covert sensitisation as a way of reducing addiction. Examples include; use of evidence to support or refute the effectiveness, ethics, cost/ time, short-term or long-term benefits, usefulness. **For example:** ***One strength of covert sensitisation is it has been shown to be more ethical and practical than other treatment methods such as aversion therapy. For instance, McConaghy et al (1983) studied twenty compulsive gamblers and found that covert sensitisation produced a 60% greater recovery rate compared to the use of traditional aversion therapy, strongly suggesting that this should be a significant method for those with gambling addiction. One weakness of covert sensitisation is that its success is determined by the patient themselves. For instance, it relies on the patient having good communication and strong imagination skills to visualise the negative consequences used in the treatment programme. This reduces the usefulness of the treatment and may not have long-term benefits***. Other reasonable marking points gain credit.

49. AO1 (2)

Brief outline of the theory of planned behaviour. **For example:** ***The theory of planned behaviour (TPB) by Ajzen suggests that behaviour is driven by intentions which are shaped by three interacting components; subjective norms, behavioural beliefs and attitude, and perceived behavioural control. When combined these lead to behavioural intentions, and then to behaviour change.*** Other reasonable marking points gain credit.

50. AO1 (4), AO2 (4)

Clear description of the learning theory as applied to gambling, with direct reference to the context in the scenario. Examples include; learning through classical and operant conditioning, positive and negative reinforcement, partial or variable reinforcement schedules with clear application to the scenario. **For example:** ***The learning theory suggests that gambling is learnt through conditioning, either classical (making associations) or operant (use of reinforcement). Classical conditioning is making an association between two or more factors. In this case, gamblers make an association between winning and feelings of success. In contrast, operant conditioning suggests that behaviour continues when it is reinforced positively or negatively. For instance, positive reinforcement occurs when gambling has positive consequences such as winning or feelings of euphoria or excitement. In the scenario the machines are programmed so individuals win. Schedules of reinforcement can encourage this behaviour to continue. Partial reinforcement is when wins occur unpredictably at either variable intervals (time based) or on a variable ratio (number based). These schedules can also have fixed intervals and fixed ratios. In this scenario, the 'pay out after every 2 minutes of play' is an example of a fixed interval schedule, whereas the 'pay out on average after every tenth bet' is an example of a variable ratio schedule. Partial or variable schedules tend to result in more persistent gambling behaviour. In the scenario the researchers are manipulating the schedules of reinforcement using a computer programme, as 'some machines were set to pay out after 2 minutes of play and others, on average, after every tenth bet'. Negative reinforcement could also explain an individual's gambling behaviour as it has been shown to maintain gambling behaviours through providing the gambler with an escape from their day-to-day struggles (taking away something unpleasant).*** Other reasonable marking points gain credit.

END OF PAPER