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PSYCHOLOGY **9990/31**

Paper 3 Specialist Options: Theory **October/November 2023**

1 hour 30 minutes

4727721068

You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

INSTRUCTIONS

- Answer **four** questions in total:
  - Answer questions from **two** options.
  - For each chosen option, answer **all** questions.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.

INFORMATION

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [ ].

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Psychology and abnormality

Answer **all** questions.

1 **(a)** Outline **two** common compulsions of body dysmorphic disorder (BDD). [2]

(b) Describe the psychodynamic explanation for obsessive-compulsive disorder (OCD). [4]

(c) Explain **one** similarity and **one** difference between the psychodynamic explanation for OCD and genetic explanations for OCD. [6]

2 **(a)** Describe the treatment and management of impulse control disorders and non-substance addictive disorder. [8]

(b) Evaluate the treatment and management of impulse control disorders and non-substance addictive disorder, including a discussion of nature versus nurture. [10]

Psychology and consumer behaviour

Answer **all** questions.

3 **(a)** Outline 'behaviour constraint' in consumer theories of personal space. [2]

(b) Describe Study 2 (the field experiment) by Dayan and Bar-Hillel (2011) about primacy, recency and menu item position. [4]

(c) Explain **two** strengths of the study by Dayan and Bar-Hillel. [6]

4 **(a)** Describe what psychologists have discovered about consumer decision-making (models, strategies, marketing theories). [8]

(b) Evaluate what psychologists have discovered about consumer decision-making (models, strategies, marketing theories), including a discussion of generalisations. [10]

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Psychology and health

Answer **all** questions.

5 **(a)** Identify **two** recording devices that give physiological measures of stress. [2]

(b) Describe the study about psychological measures of stress by Friedman and Rosenman (1974). [4]

(c) Explain **two** weaknesses of the study by Friedman and Rosenman. [6]

6 **(a)** Describe what psychologists have discovered about strategies for promoting health (fear arousal, Yale model of communication, providing information). [8]

(b) Evaluate what psychologists have discovered about strategies for promoting health (fear arousal, Yale model of communication, providing information), including a discussion of quantitative and qualitative data. [10]

Psychology and organisations

Answer **all** questions.

7 **(a)** Identify **two** qualities of good followers (Kelley, 1988). [2]

(b) Describe situational leadership (Hersey and Blanchard, 1988). [4]

(c) Explain **one** strength and **one** weakness of situational leadership. [6]

8 **(a)** Describe what psychologists have discovered about cognitive theories of motivation to work (goal-setting theory, VIE theory, equity theory). [8]

(b) Evaluate what psychologists have discovered about cognitive theories of motivation to work (goal-setting theory, VIE theory, equity theory), including a discussion of individual and situational explanations. [10]

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Question number

Answers for paper 9990/31

Psychology and abnormality

1(a) One common compulsion is mirror checking, where the person repeatedly checks the perceived flaw in their appearance in mirrors or other reflective surfaces. A second is camouflaging, where they hide the perceived flaw using make-up, clothing (e.g. hats or baggy clothes) or their posture.

1(b) The psychodynamic explanation says OCD arises from the anal stage of psychosexual development (about 18 months to 3 years), when the child is toilet trained. If there were difficulties between the child and parent at this stage, for example harsh or early toilet training with punishment or shame when the child defecated or urinated, the child may become fixated at this stage and develop an anally retentive personality: orderly, neat, obstinate and obsessed with cleanliness and control. In adulthood there is conflict between the id (the urge to be messy and aggressive) and the superego (strict rules about cleanliness). This creates anxiety, and the ego uses defence mechanisms such as undoing and reaction formation. Compulsive cleaning or other rituals act as an ego defence that soothes the anxiety linked to the early childhood trauma.

1(c) One similarity is that both explanations are highly deterministic. In the genetic explanation the person inherits genes that predispose them to OCD, such as variants of the COMT or SERT genes, and they have no control over the genes they inherit. In the psychodynamic explanation the person also has no control, as

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their OCD is caused by fixation at the anal stage due to how their parents toilet trained them, and by unconscious id and superego conflict they are not aware of. So in neither case does the individual have free will over developing OCD (hard determinism), and both also stress the influence of parents.

One difference is nature versus nurture. The genetic explanation is purely on the nature side, as OCD is inherited through genes, which is supported by higher concordance rates in identical than non-identical twins. The psychodynamic explanation is more on the nurture side, as OCD results from early childhood experiences of parenting during toilet training, although it has some nature element because the id and the psychosexual stages are innate. This links to the type of evidence: genetic evidence is objective and scientific, whereas psychodynamic evidence comes from case studies that depend on the subjective interpretation of the therapist, so it is harder to test.

2(a) Biochemical: Grant et al. (2008) analysed data from 284 participants with gambling disorder who took part in double-blind, placebo-controlled trials of opiate antagonists (nalmefene or naltrexone) lasting 16 to 18 weeks. Gambling symptoms were measured using a version of the Y-BOCS. The opiate antagonist group showed a greater reduction in symptoms than the placebo group, and higher doses of nalmefene gave greater reductions. Those with a family history of alcoholism responded most strongly, and younger participants were more likely to respond to placebo. Opiate antagonists may work by reducing the dopamine-linked pleasure of gambling.

Covert sensitisation (Glover, 2011): an undesirable behaviour is paired with an unpleasant image so that it becomes associated with discomfort. Glover treated a 56-year-old woman with kleptomania by having her imagine stealing and then feeling nauseous and vomiting, with relaxation in the early sessions. After four sessions her stealing had greatly reduced and this was maintained at a 19 month

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follow-up.

Imaginal desensitisation (Blaszczynski and Nower): the client identifies a typical sequence of behaviour that leads to gambling, breaks it into 4 to 6 scenes and is taught progressive muscle relaxation. They imagine each scene, including feeling the urge, but then imagine leaving the situation without gambling, while relaxing. They practise at home with recorded instructions and keep a log. This reduces the arousal linked to the urge. Mary, a 52-year-old pathological gambler, used it to decrease her urge to gamble.

Impulse control therapy (Miller, 2010): Miller argued that impulse control disorders develop when intense positive feelings become linked with a behaviour, forming a state-dependent memory called a feeling state. The Impulse Control Disorder Protocol uses a modified form of EMDR: the patient rates the feeling on the Positive Feeling Scale (0 to 10) while eye movements process it. John, a 35-year-old compulsive gambler, had five sessions, his urge reduced, and at three months his poker compulsion had not returned.

2(b) The treatments take different positions on nature versus nurture. Grant et al. assume the disorder has a nature cause, as opiate antagonists change brain chemistry, and the stronger response in people with a family history of alcoholism suggests a genetic predisposition. Covert sensitisation and imaginal desensitisation assume a nurture cause: the behaviour has been learned, so it can be unlearned by new associations. However, they also recognise nature, as relaxation reduces physiological arousal, and Miller combines both, since a feeling state is learned but is stored biologically. This suggests an interactionist approach, combining drugs and therapy, may be most effective.

In terms of usefulness, Grant et al. used a large sample of 284 and a double-blind placebo design, so the drug effect is reliable and valid. However, the case studies of Glover, Blaszczynski and Nower, and Miller each used one participant, so they

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cannot be generalised, and success relied on self-report, which may show social desirability bias. Yet case studies give rich qualitative data and follow-ups (19 months for Glover, three months for Miller) show long-term benefit.

Appropriateness also differs. Drugs can have side effects and only treat symptoms while they are taken, so relapse is likely when stopped, which is reductionist. Psychological therapies tackle the cause and teach skills the patient can use alone, but need motivation and several sessions, so they cost more time.

There are ethical issues, as covert sensitisation deliberately creates distressing images, although the patient consents and controls the imagery.

Overall, the psychological therapies appear more holistic and long-lasting, but more controlled research is needed, so combining them with drugs is the best judgement.

Psychology and consumer behaviour

3(a) Behaviour constraint is when crowding in a store invades a shopper's personal space, so they feel their freedom to behave as they want is restricted, for example they cannot move easily, browse carefully or reach products. This causes stress, so the shopper may protect themselves by leaving the shop, buying less or even becoming aggressive, as seen in crowded store sales.

3(b) Study 2 was a field experiment in a small café in Tel Aviv that catered to students and young professionals. Over 15 days the type of menu was varied: the café's regular base menu, and an inside-out menu in which items at the extremes of a category were moved to the middle and middle items moved to the extremes. This was applied to 20 items in three categories: coffee with alcohol, soft drinks and desserts. The waiters recorded the number of orders of each item, and there were similar numbers of orders from each menu (459 from the base menu and

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	492 from the inside-out menu). Items placed at the beginning or end of a list (primacy and recency) were up to twice as popular as when the same items were in the middle, supporting Study 1.
3(c)	One strength is high ecological validity. Study 2 took place in a real café with real customers who were choosing and paying for food and drinks they actually wanted, and the base menu was the café's regular menu. The customers did not know they were in a study, so there were no demand characteristics and their choices were natural. This means the primacy and recency effect is likely to apply to everyday restaurant behaviour, so the findings are useful for menu designers. A second strength is the high level of control. The items on the menus were identical and only their position in the category was changed, so position was the only thing that varied. This means the researchers could conclude that the change in popularity was caused by menu position and not by price or the items themselves. Also, the orders were recorded by waiters rather than the researchers, reducing researcher bias, and the large amount of data (over 900 orders) and the agreement with Study 1 make the results reliable.
4(a)	Models: utility theory says consumers are rational and choose the product with the best expected outcome; the higher the utility for them, the more likely they are to buy it. Satisficing (Simon) says consumers search until they find a product that is good enough and then stop, e.g. trying on a few dresses and buying one that seems acceptable. Prospect theory (Kahneman and Tversky) says consumers value gains and losses differently, feeling losses more strongly, and adds endowment: a product seems more valuable once you own it. Strategies: in the compensatory strategy the consumer weighs up all features, so a weak feature can be compensated by a strong one, e.g. fuel economy against appearance in a car. In non-compensatory strategies each feature is judged on its

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	own: elimination by aspects removes products lacking the most important feature, then the next most important and so on; the lexicographic strategy chooses the product best on the most important feature, using the second feature only if there is a tie. Partially compensatory strategies include majority of confirming dimensions, comparing two products on all relevant features and keeping the better one, and frequency of good and bad features, choosing the product with most positive features as long as it meets minimum requirements. Marketing theories (Richarme, 2005): consideration theory says the consumer forms a short-list of brands, e.g. a few restaurants, and chooses from that subset. Involvement theory says the effort put into a decision depends on how important the product is to the consumer's quality of life, not simply its price, so buying chewing gum involves low involvement but buying a mobile phone involves high involvement.
4(b)	A key issue is generalisations. These models were developed in Western, developed countries where consumers have a wide variety of the same product to choose from, so comparing features in a compensatory or lexicographic way makes sense. Where incomes are limited or few products are available, decisions may be based mainly on price or availability, so the models may not generalise. However, it can be argued that even with fewer products consumers still weigh up pros and cons, so the basic ideas may be universal. The models are reductionist. Utility theory assumes consumers are rational, but prospect theory shows emotions such as fear of loss affect choices, and none of the strategies include mood, social influence or advertising. Involvement theory is more holistic, as it links effort to the importance of the product. Individual differences are also important. Different consumers use different strategies, and the same person may satisfice when buying gum but use a compensatory strategy for a car, as involvement theory predicts. This means no

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	single model explains all consumer decisions.
	The theories have practical applications. Knowing that consumers form a short-list means marketers should make sure their brand is in the consideration set, and endowment suggests free trials increase purchases. They are also partly deterministic, suggesting choices follow fixed rules, which ignores free will.
	Much evidence is theoretical or laboratory based, so it may lack ecological validity. Overall, the theories are useful descriptions, but they generalise best to Western consumers.
	Psychology and health
5(a)	A sphygmomanometer, which measures blood pressure.
	Galvanic skin response (GSR) apparatus, which measures the electrical conductivity of the skin due to sweating.
5(b)	Friedman and Rosenman carried out a longitudinal study of about 3000 healthy men aged 39 to 59 in the USA. Their personality was assessed using a structured interview, which also observed their behaviour, and about half were classed as Type A (competitive, ambitious, impatient, time-pressured, hostile, working fast and feeling guilty when relaxing) and half as Type B (relaxed, patient, not competitive, working more slowly). The men were followed up regularly for about 9 years. Of the 257 men who developed coronary heart disease (CHD) during the study, about 70% were Type A, and Type A men were about twice as likely to develop CHD as Type B men. This suggests Type A people are more susceptible to stress and so more likely to develop stress-related illness such as CHD.
5(c)	One weakness is androcentric (beta) bias, as only men were studied. Women may respond to stress differently, and at that time fewer women held stressful,

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competitive jobs, so the link between Type A personality and CHD cannot be generalised to women. This limits the usefulness of the findings, as health campaigns based on them might not help women at risk of CHD.

A second weakness is that the study is reductionist and oversimplifies personality. It assumes people are either Type A or Type B and that personality is stable over time, when in reality personality is more complex and may vary with mood, age or situation. It also assumes CHD is caused by personality, when other factors such as smoking, diet, family history or job demands could be responsible, and as the study is correlational cause and effect cannot be established. Later research suggests that only the hostility part of Type A is the real risk factor, so the overall Type A label may be misleading.

6(a) Fear arousal: Janis and Feshbach (1953) used an independent groups design with 200 high school students. Groups of 50 heard a lecture on dental hygiene with strong fear (slides of diseased mouths and serious consequences), moderate fear (similar but less disturbing) or minimal fear (teeth and cavities without pictures), and a control group heard a lecture on the human eye. Questionnaires were given one week before, just after and one week after the lecture. Minimal fear was most effective: 36% of that group improved their dental behaviour compared with 8% in the strong fear group. Cowpe (1989) tested two 60-second adverts showing how chip pan fires start (overfilling and leaving the pan unattended). Shown in ten UK regions between 1976 and 1984, they led to a 12% drop in fires and high awareness of the danger.

Yale model of communication: persuasion depends on the source (a credible, trustworthy communicator such as a doctor), the message (clear, vivid, one or two sided), the medium (e.g. social media for young people, TV or newspapers for older people), the target audience (keep it simple for a less knowledgeable audience) and the situation where the message is received. The person must pass through

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attention, comprehension and acceptance for behaviour to change.

Providing information: Lewin et al. (1992) randomly allocated 176 patients who had recently had a heart attack to a self-help rehabilitation programme (the Heart Manual) or to standard care plus a placebo package of information and informal counselling. The rehabilitation group showed better psychological adjustment at one year, had significantly fewer GP contacts and fewer were readmitted to hospital in the first six months.

6(b) All three studies mainly collect quantitative data. Cowpe used the percentage decrease in chip pan fires, Janis and Feshbach used the percentage of students who changed their tooth brushing, and Lewin et al. measured GP visits and readmissions. Quantitative data are objective and easy to compare, so we can see that minimal fear worked best. Cowpe's data were secondary statistics on fires, so they are free from social desirability. However, Janis and Feshbach and Lewin et al. relied partly on self-report questionnaires, so participants may have exaggerated their healthy behaviour. Also, quantitative data do not explain why a message worked; qualitative data, such as interviews about why the strong fear lecture was ignored, would give more depth, although they are harder to analyse objectively.

Generalisability is limited. Janis and Feshbach used American high school students, so the results may not apply to adults, and Lewin et al. only studied heart attack patients. However, Cowpe used ten UK regions, which is wide.

Ecological validity is high for Cowpe and Lewin et al., which used real campaigns and real patients, and Lewin et al. was longitudinal, showing effects at one year. Janis and Feshbach only followed students up for one week, so long-term change is unknown.

The Yale model is holistic, considering the source, message, medium, audience and situation, so it is useful for designing campaigns, but it is a theory and does not predict how much change will occur.

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	Overall, these strategies are useful, but combining quantitative and qualitative data would be better.
	Psychology and organisations
7(a)	Self-management: they can think critically and work independently. Commitment: they are committed to the organisation and keep up the morale of themselves and others.
7(b)	Situational leadership says there is no one best style of leadership: effective leaders adapt their style to the situation and, in particular, to the maturity (readiness) of their followers for the task. There are two key behaviours: task behaviour (giving direction) and relationship behaviour (giving emotional support). Combining these gives four styles. Telling (directing) is high task and low relationship, for followers who are unable and unwilling. Selling (coaching) is high task and high relationship, for followers who need structure and support. Participating (supporting) is low task and high relationship, for able followers who lack confidence. Delegating is low task and low relationship, for able, willing and mature followers.
7(c)	One strength is that situational leadership is flexible and adaptive. Because the leader changes their style according to the maturity of the followers, it can be tailored to any team, organisation or task, so it is generalisable and useful. It can also develop the group: as followers become more competent, the leader moves from telling to delegating, which gives workers more responsibility and so more job satisfaction. It is holistic, as it takes into account the leader, the followers and the task. One weakness is that it relies heavily on the skills and sensitivity of the manager.

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The leader must be able to judge the maturity of the group accurately and switch styles quickly, which many managers could not do without training. It is also difficult if a group has mixed maturity levels, as the leader may need to direct some workers but delegate to others at the same time, and it is not clear who decides on the maturity level. So in practice the model may be hard to apply.

8(a)

Goal-setting theory (Latham and Locke, 1984) found that specific and difficult goals lead to better task performance than vague or easy goals. To motivate, goals need clarity (measurable and unambiguous), challenge (hard enough to give a sense of achievement), commitment (understood and agreed with the employee), feedback (to clarify expectations, adjust difficulty and give recognition) and task complexity (the employee must be capable of the task). This is similar to setting SMART goals.

VIE (expectancy) theory (Vroom, 1964) says people act to maximise pleasure and minimise pain, so they are motivated if they expect rewards that can be obtained without too much trouble. Valence is the strength of preference for an outcome, e.g. recognition. Instrumentality is the belief that performing the task will lead to the valued reward. Expectancy is confidence that one can perform the task well. Motivation = Valence × Expectancy × Instrumentality, so if any one is zero there is no motivation. Managers should find out which rewards employees value, show that performance leads to them and make sure employees have the skills needed.

Equity theory (Adams, 1963) says workers are motivated by fairness. A worker compares the ratio of their outcomes (pay, recognition, status) to their inputs (effort, skills, time) with the ratio of other workers. If they perceive inequity, being under-rewarded or over-rewarded compared with others, they feel distressed and act to restore equity, e.g. by reducing effort or asking for a pay rise, so under-reward lowers motivation.

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8(b)

The theories differ on individual and situational explanations. VIE theory is mainly individual, as valence, expectancy and instrumentality are personal to each employee, so the same reward motivates one worker but not another. Goal-setting is a mixture: the manager changes the situation by setting goals and giving feedback, but goals must be specific to the individual. Equity theory is more situational, as motivation depends on comparisons with other workers, but it has an individual element because each person decides what counts as input, e.g. hours present or effort while at work. So the best explanation combines both.

The theories have strong practical applications. Goal-setting leads to SMART targets and appraisal systems, VIE tells managers to offer rewards employees value, and equity theory shows the importance of fair, transparent pay.

However, they are reductionist. VIE reduces motivation to a formula, and equity theory reduces it to a ratio, ignoring emotions, personality and intrinsic motivation. They also assume workers are rational, which may not always be true.

There may be cultural bias, as the theories come from individualist Western cultures. In collectivist cultures, group goals and harmony may matter more than personal rewards or comparison.

Goal-setting is supported by much evidence, whereas VIE is hard to test because valence is subjective.

Overall, the cognitive theories are useful, especially when combined.

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PSYCHOLOGY **9990/32**

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1 hour 30 minutes

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You must answer on the enclosed answer booklet.

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Psychology and abnormality

Answer **all** questions.

1 **(a)** Explain what is meant by 'mania'. [2]

(b) Describe the study on depression and attributional style by Seligman et al. (1988). [4]

(c) Explain the effectiveness of the controls used in the study by Seligman et al. [6]

2 **(a)** Describe explanations of schizophrenia and delusional disorder. [8]

(b) Evaluate explanations of schizophrenia and delusional disorder, including a discussion of nature versus nurture. [10]

Psychology and consumer behaviour

Answer **all** questions.

3 **(a)** Outline 'involvement' as a marketing theory (Richarme, 2005). [2]

(b) Outline **two** of the findings from the study by Hall et al. (2010) on choice blindness. [4]

(c) Explain **one** strength and **one** weakness of the study by Hall et al. [6]

4 **(a)** Describe communication and advertising models (changing attitudes and models of communication, AIDA model, hierarchy of effects model). [8]

(b) Evaluate communication and advertising models (changing attitudes and models of communication, AIDA model, hierarchy of effects model), including a discussion of reductionism versus holism. [10]

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Psychology and health

Answer **all** questions.

5 **(a)** Outline **one** behavioural technique used to improve adherence to medical advice. [2]

(b) Describe the study on repeat prescriptions by Sherman et al. (2000). [4]

(c) Explain **two** strengths of the study by Sherman et al. [6]

6 **(a)** Describe what psychologists have discovered about types and theories of pain. [8]

(b) Evaluate what psychologists have discovered about types and theories of pain, including a discussion of practical applications. [10]

Psychology and organisations

Answer **all** questions.

7 **(a)** Identify **two** ways that workers compare themselves to other workers, according to equity theory (Adams, 1963). [2]

(b) Describe the need theory of achievement motivation (McClelland, 1965). [4]

(c) Explain **two** differences between achievement motivation (McClelland, 1965) and hierarchy of needs (Maslow, 1970). [6]

8 **(a)** Describe what psychologists have discovered about physical and psychological work conditions (the Hawthorne studies, bullying at work, open plan offices). [8]

(b) Evaluate what psychologists have discovered about physical and psychological work conditions (the Hawthorne studies, bullying at work, open plan offices), including a discussion of experiments. [10]

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Question number

Answers for paper 9990/32

Psychology and abnormality

1(a) Mania is a state of abnormally elevated mood that occurs in bipolar disorder, the opposite pole to depression. It is characterised by long periods of euphoria and extreme confidence, racing thoughts with speaking quickly, a reduced need for sleep and risky behaviour such as gambling.

1(b) Seligman et al. studied 39 patients with unipolar depression and 12 patients with bipolar disorder (mean age 36) from the same outpatient clinic, with 10 non-clinical adults as a control group. All completed a short form of the Beck Depression Inventory (BDI) and the Attributional Style Questionnaire (ASQ) before cognitive therapy, at the end of therapy and one year after therapy finished. The ASQ asks people to give the cause of 12 hypothetical good and bad events and rate each cause on a 7-point scale for internality, stability and globality. A pessimistic explanatory style for bad events (internal, stable and global) correlated significantly with the severity of depression at all three times. In the unipolar group, explanatory style became less pessimistic by the end of therapy as depression reduced, and this was maintained at follow-up. The bipolar patients showed the same pattern but less strongly.

1(c) One effective control was the standardised procedure. All participants completed the same BDI and ASQ in the same way at the same three points, so they experienced the same thing. This makes the study reliable and the scoring

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objective, as questionnaire scores are not open to the researchers' interpretation. Measuring depression and attributional style before and after therapy and at follow-up is also effective, as each participant acts as their own baseline. This controls for individual differences and allows changes in explanatory style and depression to be measured clearly, increasing validity. Including both unipolar and bipolar patients also allowed comparison between types of depression.

However, the control group was not very effective. The 10 non-clinical adults had no therapy, as they had no disorder, so they only provided a baseline of ASQ and BDI scores and could not show whether changes were due to therapy or just time. Also, participants could not be randomly allocated to groups, as it was a quasi experiment, so the relationship found is only correlational and cause and effect cannot be concluded. The questionnaires are self-reports, so demand characteristics may have affected scores, for example patients wanting to appear improved after therapy. Overall, the controls made the study reliable, but limited validity.

2(a) Genetic: Gottesman and Shields (1972) reviewed adoption, sibling and twin studies. All adoption studies found an increased incidence of schizophrenia in adopted children with a schizophrenic biological parent, and biological siblings of people with schizophrenia had a much higher rate. All twin studies found higher concordance for monozygotic (MZ) than dizygotic (DZ) twins; in their own study it was 58% for MZ and 12% for DZ twins. They concluded there is a strong genetic input into schizophrenia.

Biochemical (dopamine hypothesis): symptoms are caused by an excess of dopamine in the mid-brain and a reduction in the prefrontal cortex. High activity at D2 receptors in subcortical and limbic regions causes positive symptoms such as hallucinations and delusions, while negative and cognitive symptoms are linked to abnormal D1 activity in the prefrontal cortex. Antipsychotics that block dopamine reduce positive symptoms.

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Cognitive (Frith, 1992): symptoms are due to faulty thinking. A central monitoring system normally lets us recognise that thoughts such as our inner voice are self-created; if it fails, the person believes the thoughts come from outside, producing auditory hallucinations and thought insertion. Delusions may develop as a way of explaining these hallucinations. Cognitive impairment can explain poverty of speech and disorganised thinking. People may also have a poor theory of mind, so they cannot understand other people's intentions and develop delusions, e.g. of persecution, to make sense of others' behaviour, which also explains delusional disorder.

2(b) The genetic explanation supports nature, as schizophrenia is inherited, and the biochemical explanation also supports nature, as excess dopamine could be genetic. However, dopamine could also reflect nurture, as stressful experiences may raise dopamine levels. The cognitive explanation is more nurture, as faulty cognitions may come from experience, although Frith does not deny the role of dopamine. Gottesman and Shields found only 58% concordance in MZ twins, who share all their genes, so the environment must also matter. This supports the diathesis-stress model: a genetic vulnerability plus environmental stress.

The biological explanations are reductionist, reducing a complex disorder to genes or one neurotransmitter, while Frith is more holistic as he links thoughts, symptoms and biology. They are also deterministic: genetic explanations suggest people with a schizophrenic parent cannot avoid it, which could cause anxiety.

There is supporting evidence. Antipsychotics that block dopamine reduce positive symptoms, but they help negative symptoms less, so dopamine cannot be the whole story, and it is unclear whether excess dopamine is a cause or an effect. Family studies cannot separate genes from shared environment.

The explanations have practical applications: the dopamine hypothesis led to antipsychotic drugs, and the cognitive explanation led to CBT that helps patients

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test whether voices are self-generated.

Overall, an interactionist view combining nature and nurture is most convincing.

Psychology and consumer behaviour

3(a) Involvement is the amount of cognitive effort a consumer applies to a decision, which is directly related to how important acquiring the product is to them. It is not mainly about price but about the perceived impact on the consumer's quality of life, e.g. low involvement when buying chewing gum but high involvement when buying a mobile phone.

3(b) One finding is that most manipulations were not detected. Across all pairs, the total detection rate for the manipulated trials was only about 32 to 33% for both jam and tea, with concurrent detection (noticing immediately) about 14% and retrospective detection about 6 to 7%, so about two thirds of participants did not notice they had tasted or smelled the opposite of the sample they chose.

A second finding is that detection was significantly higher for the most dissimilar jam and tea pairs than for the least similar pairs. Also, there was no difference in how easy participants rated it to tell the samples apart, or in their confidence, between non-manipulated trials and undetected manipulated trials.

3(c) One strength is high mundane realism and ecological validity. The study was carried out with 180 real customers in a supermarket, and tasting jam or smelling tea is something shoppers are often asked to do. The cover story of quality control was realistic, so participants behaved naturally and were unlikely to guess the aim. This means choice blindness is likely to occur in real shopping, so the results apply to everyday consumer behaviour. Procedures were also highly controlled, with the same ratings and switching method each time, increasing reliability.

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	One weakness is ethics. The participants were deceived, as they were told the study was about quality control, and the samples were secretly switched, so they could not give fully informed consent in advance. Although they were debriefed and gave written consent afterwards, and the deception was necessary for the study to work, participants could feel embarrassed at not noticing the switch. The study was also in one supermarket in Sweden, so it may not generalise to other cultures.
4(a)	Changing attitudes and models of communication explain how adverts try to change attitudes so consumers buy a product. The source is where the message comes from: it should be credible and trustworthy, such as an expert or a celebrity (though overused celebrities lose trust), attractive if the product improves attractiveness, and similar to the target customers. The message is how information is presented: a two-sided argument works better for familiar products compared with competitors, and a one-sided argument for unfamiliar products; repetition aids recall, but an advert that tries too hard can lower sales. The audience must be considered, e.g. age, whether they share attitudes, and self-esteem, as people with moderate self-esteem are easier to persuade than those with very high or very low self-esteem. The AIDA model is a behavioural model with four stages: Attention (the advert must attract the consumer's attention), Interest (make them want to know more), Desire (create a feeling of need for the product) and Action (the consumer buys it). Updates include the CAB model (cognition, affect, behaviour), REAN (reach, engage, activate, nurture) and NAITDASE (need, attention, interest, trust, desire, action, satisfaction, evaluation). The hierarchy of effects model (Lavidge and Steiner) has six stages: awareness of the product through advertising; knowledge, the information the consumer needs (simple for food, complex for a car); liking the product; preference, liking it more

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	than competitors; conviction, a stronger desire to buy, e.g. through a discount or free offer; and finally purchase.
4(b)	These models can be seen as holistic. Models of communication recognise that a company must consider many aspects, the source, message, medium and audience, not just the content of the advert. The AIDA and hierarchy of effects models are also fairly complex, as they describe several stages consumers pass through before buying. However, they can be seen as reductionist, as they reduce buying to a fixed sequence and ignore factors such as disposable income, peer influence and impulse buying, where a consumer may buy without passing through every stage. So they are holistic about the advert but reductionist about the consumer. The models have practical applications. They help companies design adverts, e.g. choosing a trustworthy source, using repetition and adding a free offer to build conviction, and they allow each stage to be measured, e.g. through DAGMAR. Individual differences are important. Generalisations such as women being easier to persuade than men are outdated and may be gender biased, and people differ in self-esteem, so one advert will not work for all. There may be cultural bias, as the models were developed in Western countries with large advertising industries. Much is theoretical, with little research support for strict stages, and the models are deterministic. Overall, they are useful guides but oversimplify real consumer decisions.
	Psychology and health
5(a)	Positive reinforcement through a reward for correct behaviour, e.g. the Funhaler, an asthma spacer for children with a whistle and spinner that work only when the inhaler is used correctly. The fun reward reinforces taking the medication, which

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	improved adherence to asthma medication in children.
5(b)	Sherman et al. studied 116 children with asthma who had been prescribed medication. A clinician interviewed the patients, carers or both, using a checklist, to estimate adherence. A nurse asked carers where they obtained the medication and then telephoned the 66 pharmacies that supplied them to find the number of repeat prescriptions filled. Adherence was recorded as a percentage of possible adherence over a mean of 163 days, and the refill information was checked against Medicaid records and found to be 92% accurate. Adherence to the different asthma drugs ranged from 38% to 72%, and 49% of patients had less than 50% adherence to preventative medication. The researchers concluded that physicians could not identify which patients had poor adherence, and that checking prescription refills is an accurate, practical method of doing so.
5(c)	One strength is high validity. The adherence levels reported by clinicians were compared with objective records of prescription refills obtained by telephoning pharmacies, and these pharmacy records were checked against Medicaid records and found to be 92% accurate. Because the refill data do not rely on patients' or carers' self-reports, they are not affected by social desirability bias, so they give a more accurate measure of real adherence. Patients who had received free samples were excluded, so only prescribed refills counted. A second strength is practical application. The study showed that clinicians are not good judges of whether adherence is high or low. Checking repeat prescriptions is a cheap, simple method any practitioner can use to identify children with poor adherence, so strategies such as reminders can be targeted at the patients most in need. As non-adherence in asthma is a serious problem, this could prevent attacks, and data collected over an average of about five months evened out one-off missed refills.

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6(a)

Types of pain: acute pain is of short duration; it can be mild or severe and last from a moment to several months, e.g. a cut. Chronic organic pain lasts longer, more than six months and up to years, and is caused by tissue damage, e.g. arthritis; acute pain can become chronic. Psychogenic pain has no physical cause. An example is phantom limb pain, where pain is felt in a limb that is no longer present, so the pain is produced by the mind and brain.

Specificity theory (Descartes, 1664) moved the centre of pain sensation from the heart to the brain. It sees the body like a machine: there is a sensory system dedicated to pain, with specific receptors and nerve fibres forming a direct pathway to a pain centre in the brain. When the skin is injured, the disturbance travels along the nerve fibres to the brain, where pain is registered, so the amount of pain is directly related to the amount of injury.

Gate control theory (Melzack, 1965) says pain depends on interplay between the peripheral nervous system and the central nervous system. After injury, pain messages travel along peripheral nerves to the spinal cord, where they meet a nerve gate. The gate can open or close depending on factors including messages coming down from the brain, such as attention, emotion and past experience. When the gate is open, pain messages get through and pain can be intense; when it closes, e.g. through rubbing the area or distraction, messages are blocked and pain may not be felt.

6(b)

Understanding the types and theories of pain has practical applications. Doctors can explain to patients how pain works, which may make it easier to cope with, and recognising psychogenic pain means phantom limb pain is taken seriously. Gate control theory is especially useful, as it explains why distraction, massage or TENS can reduce pain, informing pain management. However, the theories themselves say little about how to reduce pain, and specificity theory has few

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	applications as it cannot explain chronic or phantom pain.
	Comparing the theories, specificity theory is reductionist, reducing pain to a direct pathway from injury to brain, and it cannot explain phantom limb pain, where there is no limb, or why soldiers with serious wounds sometimes feel little pain.
	Gate control theory is more holistic, as it includes psychological factors such as emotion and attention, so it explains these cases better.
	Individual differences are also important. People feel different amounts of pain from the same injury, which gate control theory can explain but specificity theory cannot.
	There may be cultural bias, as attitudes to expressing pain vary, and specificity theory is deterministic.
	Overall, gate control theory is the more useful and valid theory.
	Psychology and organisations
7(a)	They compare their inputs, such as skills, effort and knowledge, with other workers' inputs.
	They compare their outcomes, such as pay, recognition and status, with other workers' outcomes.
7(b)	McClelland's need theory says people are motivated at work by three learned needs: the need for achievement, the need for affiliation and the need for power, and each person has a different balance of them. The need for achievement is wanting to succeed through one's own hard work rather than luck; high achievers prefer moderately challenging tasks with personal responsibility and regular feedback. The need for affiliation is the need to be liked and accepted by others and to be part of a group of workers. The need for power is the need to influence and control others. These needs can be measured using the Thematic Apperception Test

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	(TAT).
7(c)	One difference is that hierarchy of needs is based on a hierarchy, whereas achievement motivation is not. In Maslow's theory people must work from the bottom to the top, so physiological and safety needs must be met before higher needs such as esteem and self-actualisation can motivate them. This makes it more deterministic: a worker cannot be creative at work unless their safety needs are met. In McClelland's theory the three needs are separate and non-hierarchical, so a worker could score low on power and achievement but high on affiliation. A second difference is individual differences and ease of assessment. Maslow sees the needs as universal: everyone must have physiological needs met before safety. McClelland allows far more individual differences, as not all workers need high power or affiliation. Also, McClelland's needs can be measured in the workplace using specific criteria, such as the TAT, where the worker interprets ambiguous images, whereas tests of Maslow's hierarchy are not used in the workplace, so McClelland's theory is more focused on work.
8(a)	Hawthorne studies (Wikstrom and Bendix, 2000): this review looked at the studies carried out in the 1920s at the Hawthorne Plant in Chicago to test how changes in the physical environment affect productivity. Researchers changed many aspects, such as lighting and work structures, but productivity increased in both the experimental group and the control group with no changes. This was put down to the special attention and privileges the workers received and their improved relationships with each other and management. Wikstrom and Bendix noted later research has not replicated this, perhaps because the workers had higher pay. Bullying at work (Einarsen, 1999): a review of previous research which identified four stages of bullying: aggressive behaviour, bullying, stigmatisation and finally severe trauma. Five types of bullying behaviour were identified: physical, verbal,

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	social isolation, personal attacks (e.g. ridicule or gossip) and work-related bullying (e.g. making tasks harder to perform). Open plan offices (Oldham and Brass, 1979): 123 employees of a newspaper in the Midwest USA. 76 were in an experimental group that experienced all three waves of the move to an open plan office, 5 were a control group whose office did not change, and 26 experienced two waves. Questionnaires (three items each) measured job characteristics such as autonomy, skill variety, task identity, task significance and feedback, plus ease of interacting, conflict and concentration. After the move, internal motivation and satisfaction with work and colleagues decreased, and employees found it hard to concentrate.
8(b)	The Hawthorne studies and Oldham and Brass were field experiments, carried out in the workers' real workplace, so they have high ecological validity and the results apply to real organisations. However, there is less control in the field. In the Hawthorne studies, productivity rose in the control group too, showing that the attention of being studied (the Hawthorne effect) was a confounding variable, which lowers validity. Oldham and Brass was a quasi experiment, as workers could not be randomly allocated, so those left in the old office may already have been more satisfied, and the control group of 5 was very small. Einarsen did not use experiments at all, so his conclusions about bullying lack controls, although experimenting on bullying would be unethical, so reviews are appropriate. Generalisability is limited: Oldham and Brass studied one newspaper in the USA, and the Hawthorne workers were from one plant in the 1920s. The open plan study used self-report questionnaires, so social desirability may affect answers, although they gave quantitative data that are easy to compare. The research is useful: it warns against open plan offices, shows the value of attention and relationships at work, and helps organisations recognise and stop bullying early.

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The Hawthorne findings are holistic, showing social factors matter as well as physical conditions.

Overall, the research is useful, but its validity is limited by weak experimental control.

Cambridge Assessment International Education

Cambridge International AS & A Level

PSYCHOLOGY **9990/33**

Paper 3 Specialist Options: Theory **October/November 2023**

1 hour 30 minutes

1548857342

You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

INSTRUCTIONS

- Answer **four** questions in total:
  - Answer questions from **two** options.
  - For each chosen option, answer **all** questions.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.

INFORMATION

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **4** pages. Any blank pages are indicated.

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Psychology and abnormality

Answer **all** questions.

1 **(a)** Outline **two** common compulsions of body dysmorphic disorder (BDD). [2]

(b) Describe the psychodynamic explanation for obsessive-compulsive disorder (OCD). [4]

(c) Explain **one** similarity and **one** difference between the psychodynamic explanation for OCD and genetic explanations for OCD. [6]

2 **(a)** Describe the treatment and management of impulse control disorders and non-substance addictive disorder. [8]

(b) Evaluate the treatment and management of impulse control disorders and non-substance addictive disorder, including a discussion of nature versus nurture. [10]

Psychology and consumer behaviour

Answer **all** questions.

3 **(a)** Outline 'behaviour constraint' in consumer theories of personal space. [2]

(b) Describe Study 2 (the field experiment) by Dayan and Bar-Hillel (2011) about primacy, recency and menu item position. [4]

(c) Explain **two** strengths of the study by Dayan and Bar-Hillel. [6]

4 **(a)** Describe what psychologists have discovered about consumer decision-making (models, strategies, marketing theories). [8]

(b) Evaluate what psychologists have discovered about consumer decision-making (models, strategies, marketing theories), including a discussion of generalisations. [10]

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Psychology and health

Answer **all** questions.

5 **(a)** Identify **two** recording devices that give physiological measures of stress. [2]

(b) Describe the study about psychological measures of stress by Friedman and Rosenman (1974). [4]

(c) Explain **two** weaknesses of the study by Friedman and Rosenman. [6]

6 **(a)** Describe what psychologists have discovered about strategies for promoting health (fear arousal, Yale model of communication, providing information). [8]

(b) Evaluate what psychologists have discovered about strategies for promoting health (fear arousal, Yale model of communication, providing information), including a discussion of quantitative and qualitative data. [10]

Psychology and organisations

Answer **all** questions.

7 **(a)** Identify **two** qualities of good followers (Kelley, 1988). [2]

(b) Describe situational leadership (Hersey and Blanchard, 1988). [4]

(c) Explain **one** strength and **one** weakness of situational leadership. [6]

8 **(a)** Describe what psychologists have discovered about cognitive theories of motivation to work (goal-setting theory, VIE theory, equity theory). [8]

(b) Evaluate what psychologists have discovered about cognitive theories of motivation to work (goal-setting theory, VIE theory, equity theory), including a discussion of individual and situational explanations. [10]

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

Question number

Answers for paper 9990/33

Psychology and abnormality

1(a) One common compulsion is mirror checking, where the person repeatedly checks the perceived flaw in their appearance in mirrors or other reflective surfaces. A second is camouflaging, where they hide the perceived flaw using make-up, clothing (e.g. hats or baggy clothes) or their posture.

1(b) The psychodynamic explanation says OCD arises from the anal stage of psychosexual development (about 18 months to 3 years), when the child is toilet trained. If there were difficulties between the child and parent at this stage, for example harsh or early toilet training with punishment or shame when the child defecated or urinated, the child may become fixated at this stage and develop an anally retentive personality: orderly, neat, obstinate and obsessed with cleanliness and control. In adulthood there is conflict between the id (the urge to be messy and aggressive) and the superego (strict rules about cleanliness). This creates anxiety, and the ego uses defence mechanisms such as undoing and reaction formation. Compulsive cleaning or other rituals act as an ego defence that soothes the anxiety linked to the early childhood trauma.

1(c) One similarity is that both explanations are highly deterministic. In the genetic explanation the person inherits genes that predispose them to OCD, such as variants of the COMT or SERT genes, and they have no control over the genes they inherit. In the psychodynamic explanation the person also has no control, as

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their OCD is caused by fixation at the anal stage due to how their parents toilet trained them, and by unconscious id and superego conflict they are not aware of. So in neither case does the individual have free will over developing OCD (hard determinism), and both also stress the influence of parents.

One difference is nature versus nurture. The genetic explanation is purely on the nature side, as OCD is inherited through genes, which is supported by higher concordance rates in identical than non-identical twins. The psychodynamic explanation is more on the nurture side, as OCD results from early childhood experiences of parenting during toilet training, although it has some nature element because the id and the psychosexual stages are innate. This links to the type of evidence: genetic evidence is objective and scientific, whereas psychodynamic evidence comes from case studies that depend on the subjective interpretation of the therapist, so it is harder to test.

2(a) Biochemical: Grant et al. (2008) analysed data from 284 participants with gambling disorder who took part in double-blind, placebo-controlled trials of opiate antagonists (nalmefene or naltrexone) lasting 16 to 18 weeks. Gambling symptoms were measured using a version of the Y-BOCS. The opiate antagonist group showed a greater reduction in symptoms than the placebo group, and higher doses of nalmefene gave greater reductions. Those with a family history of alcoholism responded most strongly, and younger participants were more likely to respond to placebo. Opiate antagonists may work by reducing the dopamine-linked pleasure of gambling.

Covert sensitisation (Glover, 2011): an undesirable behaviour is paired with an unpleasant image so that it becomes associated with discomfort. Glover treated a 56-year-old woman with kleptomania by having her imagine stealing and then feeling nauseous and vomiting, with relaxation in the early sessions. After four sessions her stealing had greatly reduced and this was maintained at a 19 month

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follow-up.

Imaginal desensitisation (Blaszczynski and Nower): the client identifies a typical sequence of behaviour that leads to gambling, breaks it into 4 to 6 scenes and is taught progressive muscle relaxation. They imagine each scene, including feeling the urge, but then imagine leaving the situation without gambling, while relaxing. They practise at home with recorded instructions and keep a log. This reduces the arousal linked to the urge. Mary, a 52-year-old pathological gambler, used it to decrease her urge to gamble.

Impulse control therapy (Miller, 2010): Miller argued that impulse control disorders develop when intense positive feelings become linked with a behaviour, forming a state-dependent memory called a feeling state. The Impulse Control Disorder Protocol uses a modified form of EMDR: the patient rates the feeling on the Positive Feeling Scale (0 to 10) while eye movements process it. John, a 35-year-old compulsive gambler, had five sessions, his urge reduced, and at three months his poker compulsion had not returned.

2(b) The treatments take different positions on nature versus nurture. Grant et al. assume the disorder has a nature cause, as opiate antagonists change brain chemistry, and the stronger response in people with a family history of alcoholism suggests a genetic predisposition. Covert sensitisation and imaginal desensitisation assume a nurture cause: the behaviour has been learned, so it can be unlearned by new associations. However, they also recognise nature, as relaxation reduces physiological arousal, and Miller combines both, since a feeling state is learned but is stored biologically. This suggests an interactionist approach, combining drugs and therapy, may be most effective.

In terms of usefulness, Grant et al. used a large sample of 284 and a double-blind placebo design, so the drug effect is reliable and valid. However, the case studies of Glover, Blaszczynski and Nower, and Miller each used one participant, so they

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cannot be generalised, and success relied on self-report, which may show social desirability bias. Yet case studies give rich qualitative data and follow-ups (19 months for Glover, three months for Miller) show long-term benefit.

Appropriateness also differs. Drugs can have side effects and only treat symptoms while they are taken, so relapse is likely when stopped, which is reductionist.

Psychological therapies tackle the cause and teach skills the patient can use alone, but need motivation and several sessions, so they cost more time.

There are ethical issues, as covert sensitisation deliberately creates distressing images, although the patient consents and controls the imagery.

Overall, the psychological therapies appear more holistic and long-lasting, but more controlled research is needed, so combining them with drugs is the best judgement.

Psychology and consumer behaviour

3(a) Behaviour constraint is when crowding in a store invades a shopper's personal space, so they feel their freedom to behave as they want is restricted, for example they cannot move easily, browse carefully or reach products. This causes stress, so the shopper may protect themselves by leaving the shop, buying less or even becoming aggressive, as seen in crowded store sales.

3(b) Study 2 was a field experiment in a small café in Tel Aviv that catered to students and young professionals. Over 15 days the type of menu was varied: the café's regular base menu, and an inside-out menu in which items at the extremes of a category were moved to the middle and middle items moved to the extremes. This was applied to 20 items in three categories: coffee with alcohol, soft drinks and desserts. The waiters recorded the number of orders of each item, and there were similar numbers of orders from each menu (459 from the base menu and

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	492 from the inside-out menu). Items placed at the beginning or end of a list (primacy and recency) were up to twice as popular as when the same items were in the middle, supporting Study 1.
3(c)	One strength is high ecological validity. Study 2 took place in a real café with real customers who were choosing and paying for food and drinks they actually wanted, and the base menu was the café's regular menu. The customers did not know they were in a study, so there were no demand characteristics and their choices were natural. This means the primacy and recency effect is likely to apply to everyday restaurant behaviour, so the findings are useful for menu designers. A second strength is the high level of control. The items on the menus were identical and only their position in the category was changed, so position was the only thing that varied. This means the researchers could conclude that the change in popularity was caused by menu position and not by price or the items themselves. Also, the orders were recorded by waiters rather than the researchers, reducing researcher bias, and the large amount of data (over 900 orders) and the agreement with Study 1 make the results reliable.
4(a)	Models: utility theory says consumers are rational and choose the product with the best expected outcome; the higher the utility for them, the more likely they are to buy it. Satisficing (Simon) says consumers search until they find a product that is good enough and then stop, e.g. trying on a few dresses and buying one that seems acceptable. Prospect theory (Kahneman and Tversky) says consumers value gains and losses differently, feeling losses more strongly, and adds endowment: a product seems more valuable once you own it. Strategies: in the compensatory strategy the consumer weighs up all features, so a weak feature can be compensated by a strong one, e.g. fuel economy against appearance in a car. In non-compensatory strategies each feature is judged on its

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own: elimination by aspects removes products lacking the most important feature, then the next most important and so on; the lexicographic strategy chooses the product best on the most important feature, using the second feature only if there is a tie. Partially compensatory strategies include majority of confirming dimensions, comparing two products on all relevant features and keeping the better one, and frequency of good and bad features, choosing the product with most positive features as long as it meets minimum requirements.

Marketing theories (Richarme, 2005): consideration theory says the consumer forms a short-list of brands, e.g. a few restaurants, and chooses from that subset. Involvement theory says the effort put into a decision depends on how important the product is to the consumer's quality of life, not simply its price, so buying chewing gum involves low involvement but buying a mobile phone involves high involvement.

4(b)

A key issue is generalisations. These models were developed in Western, developed countries where consumers have a wide variety of the same product to choose from, so comparing features in a compensatory or lexicographic way makes sense. Where incomes are limited or few products are available, decisions may be based mainly on price or availability, so the models may not generalise. However, it can be argued that even with fewer products consumers still weigh up pros and cons, so the basic ideas may be universal.

The models are reductionist. Utility theory assumes consumers are rational, but prospect theory shows emotions such as fear of loss affect choices, and none of the strategies include mood, social influence or advertising. Involvement theory is more holistic, as it links effort to the importance of the product.

Individual differences are also important. Different consumers use different strategies, and the same person may satisfice when buying gum but use a compensatory strategy for a car, as involvement theory predicts. This means no

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	single model explains all consumer decisions. The theories have practical applications. Knowing that consumers form a short-list means marketers should make sure their brand is in the consideration set, and endowment suggests free trials increase purchases. They are also partly deterministic, suggesting choices follow fixed rules, which ignores free will. Much evidence is theoretical or laboratory based, so it may lack ecological validity. Overall, the theories are useful descriptions, but they generalise best to Western consumers.
	Psychology and health
5(a)	A sphygmomanometer, which measures blood pressure. Galvanic skin response (GSR) apparatus, which measures the electrical conductivity of the skin due to sweating.
5(b)	Friedman and Rosenman carried out a longitudinal study of about 3000 healthy men aged 39 to 59 in the USA. Their personality was assessed using a structured interview, which also observed their behaviour, and about half were classed as Type A (competitive, ambitious, impatient, time-pressured, hostile, working fast and feeling guilty when relaxing) and half as Type B (relaxed, patient, not competitive, working more slowly). The men were followed up regularly for about 9 years. Of the 257 men who developed coronary heart disease (CHD) during the study, about 70% were Type A, and Type A men were about twice as likely to develop CHD as Type B men. This suggests Type A people are more susceptible to stress and so more likely to develop stress-related illness such as CHD.
5(c)	One weakness is androcentric (beta) bias, as only men were studied. Women may respond to stress differently, and at that time fewer women held stressful,

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competitive jobs, so the link between Type A personality and CHD cannot be generalised to women. This limits the usefulness of the findings, as health campaigns based on them might not help women at risk of CHD.

A second weakness is that the study is reductionist and oversimplifies personality. It assumes people are either Type A or Type B and that personality is stable over time, when in reality personality is more complex and may vary with mood, age or situation. It also assumes CHD is caused by personality, when other factors such as smoking, diet, family history or job demands could be responsible, and as the study is correlational cause and effect cannot be established. Later research suggests that only the hostility part of Type A is the real risk factor, so the overall Type A label may be misleading.

6(a) Fear arousal: Janis and Feshbach (1953) used an independent groups design with 200 high school students. Groups of 50 heard a lecture on dental hygiene with strong fear (slides of diseased mouths and serious consequences), moderate fear (similar but less disturbing) or minimal fear (teeth and cavities without pictures), and a control group heard a lecture on the human eye. Questionnaires were given one week before, just after and one week after the lecture. Minimal fear was most effective: 36% of that group improved their dental behaviour compared with 8% in the strong fear group. Cowpe (1989) tested two 60-second adverts showing how chip pan fires start (overfilling and leaving the pan unattended). Shown in ten UK regions between 1976 and 1984, they led to a 12% drop in fires and high awareness of the danger.

Yale model of communication: persuasion depends on the source (a credible, trustworthy communicator such as a doctor), the message (clear, vivid, one or two sided), the medium (e.g. social media for young people, TV or newspapers for older people), the target audience (keep it simple for a less knowledgeable audience) and the situation where the message is received. The person must pass through

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attention, comprehension and acceptance for behaviour to change.

Providing information: Lewin et al. (1992) randomly allocated 176 patients who had recently had a heart attack to a self-help rehabilitation programme (the Heart Manual) or to standard care plus a placebo package of information and informal counselling. The rehabilitation group showed better psychological adjustment at one year, had significantly fewer GP contacts and fewer were readmitted to hospital in the first six months.

6(b) All three studies mainly collect quantitative data. Cowpe used the percentage decrease in chip pan fires, Janis and Feshbach used the percentage of students who changed their tooth brushing, and Lewin et al. measured GP visits and readmissions. Quantitative data are objective and easy to compare, so we can see that minimal fear worked best. Cowpe's data were secondary statistics on fires, so they are free from social desirability. However, Janis and Feshbach and Lewin et al. relied partly on self-report questionnaires, so participants may have exaggerated their healthy behaviour. Also, quantitative data do not explain why a message worked; qualitative data, such as interviews about why the strong fear lecture was ignored, would give more depth, although they are harder to analyse objectively.

Generalisability is limited. Janis and Feshbach used American high school students, so the results may not apply to adults, and Lewin et al. only studied heart attack patients. However, Cowpe used ten UK regions, which is wide.

Ecological validity is high for Cowpe and Lewin et al., which used real campaigns and real patients, and Lewin et al. was longitudinal, showing effects at one year. Janis and Feshbach only followed students up for one week, so long-term change is unknown.

The Yale model is holistic, considering the source, message, medium, audience and situation, so it is useful for designing campaigns, but it is a theory and does not predict how much change will occur.

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Overall, these strategies are useful, but combining quantitative and qualitative data would be better.

Psychology and organisations

7(a) Self-management: they can think critically and work independently.

Commitment: they are committed to the organisation and keep up the morale of themselves and others.

7(b) Situational leadership says there is no one best style of leadership: effective leaders adapt their style to the situation and, in particular, to the maturity (readiness) of their followers for the task. There are two key behaviours: task behaviour (giving direction) and relationship behaviour (giving emotional support). Combining these gives four styles. Telling (directing) is high task and low relationship, for followers who are unable and unwilling. Selling (coaching) is high task and high relationship, for followers who need structure and support. Participating (supporting) is low task and high relationship, for able followers who lack confidence. Delegating is low task and low relationship, for able, willing and mature followers.

7(c) One strength is that situational leadership is flexible and adaptive. Because the leader changes their style according to the maturity of the followers, it can be tailored to any team, organisation or task, so it is generalisable and useful. It can also develop the group: as followers become more competent, the leader moves from telling to delegating, which gives workers more responsibility and so more job satisfaction. It is holistic, as it takes into account the leader, the followers and the task.

One weakness is that it relies heavily on the skills and sensitivity of the manager.

Question number

The leader must be able to judge the maturity of the group accurately and switch styles quickly, which many managers could not do without training. It is also difficult if a group has mixed maturity levels, as the leader may need to direct some workers but delegate to others at the same time, and it is not clear who decides on the maturity level. So in practice the model may be hard to apply.

8(a)

Goal-setting theory (Latham and Locke, 1984) found that specific and difficult goals lead to better task performance than vague or easy goals. To motivate, goals need clarity (measurable and unambiguous), challenge (hard enough to give a sense of achievement), commitment (understood and agreed with the employee), feedback (to clarify expectations, adjust difficulty and give recognition) and task complexity (the employee must be capable of the task). This is similar to setting SMART goals.

VIE (expectancy) theory (Vroom, 1964) says people act to maximise pleasure and minimise pain, so they are motivated if they expect rewards that can be obtained without too much trouble. Valence is the strength of preference for an outcome, e.g. recognition. Instrumentality is the belief that performing the task will lead to the valued reward. Expectancy is confidence that one can perform the task well. Motivation = Valence × Expectancy × Instrumentality, so if any one is zero there is no motivation. Managers should find out which rewards employees value, show that performance leads to them and make sure employees have the skills needed.

Equity theory (Adams, 1963) says workers are motivated by fairness. A worker compares the ratio of their outcomes (pay, recognition, status) to their inputs (effort, skills, time) with the ratio of other workers. If they perceive inequity, being under-rewarded or over-rewarded compared with others, they feel distressed and act to restore equity, e.g. by reducing effort or asking for a pay rise, so under-reward lowers motivation.

Question number

8(b)

The theories differ on individual and situational explanations. VIE theory is mainly individual, as valence, expectancy and instrumentality are personal to each employee, so the same reward motivates one worker but not another. Goal-setting is a mixture: the manager changes the situation by setting goals and giving feedback, but goals must be specific to the individual. Equity theory is more situational, as motivation depends on comparisons with other workers, but it has an individual element because each person decides what counts as input, e.g. hours present or effort while at work. So the best explanation combines both.

The theories have strong practical applications. Goal-setting leads to SMART targets and appraisal systems, VIE tells managers to offer rewards employees value, and equity theory shows the importance of fair, transparent pay.

However, they are reductionist. VIE reduces motivation to a formula, and equity theory reduces it to a ratio, ignoring emotions, personality and intrinsic motivation. They also assume workers are rational, which may not always be true.

There may be cultural bias, as the theories come from individualist Western cultures. In collectivist cultures, group goals and harmony may matter more than personal rewards or comparison.

Goal-setting is supported by much evidence, whereas VIE is hard to test because valence is subjective.

Overall, the cognitive theories are useful, especially when combined.