



**THE ROYAL AUSTRALIAN AND NEW ZEALAND COLLEGE OF  
PSYCHIATRISTS**

# MOCK WRITTENS EXAMINATION

(from the Auckland New Zealand program)

**December 2010 / May 2011**

**PAPER I**

## **MODEL ANSWERS**

Note that these Mock Writtens papers are produced by local psychiatrists with no connection to the Examination Committee and are not vetted, test driven and perfected by committee in the way that the real papers are. The main point is not to get fixated about whether the question writers were “right” and you were “wrong” in the model answers, but to practice the marathon of doing 2 full 3-hour papers and practising the technique of the various question types. If you disagree with the factual detail of an answer, research the issue and decide for yourself.

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	Obsessional thinking
B.	Preoccupation
C.	Poverty of content of speech
D.	Nihilistic delusions
E.	Poverty of speech
F.	Referential delusions
G.	Circumstantiality
H.	Delusions of poverty
I.	Magical thinking
J.	Ideas of reference
K.	Overinclusiveness
L.	Delusions of guilt
M.	Ruminations

Which phenomenological concept is the most likely to be demonstrated by each of the following examples.

Please select only ONE option, but any option may be used more than once, if required.

1. James always detoured carefully around ladders, in case of bad luck. **I**
2. Miriam was sure that it was all starting up again, as the newscasters on television had started to make personal comments about her, just like before. **F**
3. Richard wrung his hands, unable to stop thinking about the family finances. He knew that the business would be declared bankrupt. The accountants had said that all would be well, but Richard was not in the least reassured. **H**
4. Mandy couldn't think about anything except her new English teacher. He was so gorgeous! And he had smiled at her! **B**
5. Sister Angelique was distressed that no matter how many rosaries she said, worries that she had committed a mortal sin still troubled her. Father Sebastian insisted that she had not sinned and that she had done enough penance, and she knew that he was right, really, but the nagging thoughts continued to torment her. **A**
6. John tried not to let the examiners see his impatience as his patient insisted on going into tedious detail about how she had been referred to the clinic. At this rate he would never get the interview completed in 50 minutes! **G**

# Extended Matching Questions

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A.	12-hour post-dose lithium level	M.	Check full blood count
B.	Consider electro-convulsive therapy (ECT)	N.	Neurologist consultation
C.	Immediate transfer to Emergency Department	O.	Reassurance, daily monitoring
D.	Wait and see, monitor over next month	P.	Commence thiamine immediately
E.	Commence an anticonvulsant	Q.	Check clozapine level
F.	Reduce dose of medication	R.	Increase dose of medication
G.	Cessation of medication	S.	Commence an antipsychotic
H.	Commence diazepam	T.	Commence a mood stabilizer
I.	Consider thyroxine therapy	U.	Urgent lithium level
J.	Check electrocardiograph (ECG)	V.	Physician consultation
K.	Maintain current treatment regime	W.	Reassurance, review in one week
L.	Change to an atypical antipsychotic	X.	Commence an anticholinergic agent

For each of the following clinical presentations, please select the **MOST** appropriate **NEXT** step in management.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

7. A young man with treatment-resistant schizophrenia has a history of neuroleptic malignant syndrome on haloperidol. A full neurological work-up showed no abnormality. He starts clozapine then has a grand mal seizure on day 5 of treatment. An ED assessment finds no abnormality and there is no history of epilepsy. **G**
8. A middle-aged woman is commenced on an SSRI antidepressant for a major depressive episode. She returns on day 3 of taking the medication and reports an intense experience of agitation such that she had some difficulty getting to sleep the previous night. The agitation seems to be abating. **O**
9. A young man with paranoid schizophrenia is being treated with clozapine under the mental health act in an open rehabilitation ward. The medication has been increased to 900 mg per day but there has been little improvement in mental state. **Q**
10. A diabetic elderly man with recurrent unipolar depressive disorder is maintained on a combination of both an antidepressant and lithium that has been very effective for some years. On a home visit he is found to have confusion, diarrhoea and myoclonus. He has a history of a recent urinary tract infection. **C**
11. A young man who is treated with depot haloperidol for chronic schizophrenia presents with torticollis. **X**
12. A 30-year-old woman has a major depressive episode and no prior psychiatric history. She has not improved at all after 3 weeks on citalopram 20mg daily. **R**

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	Korsakoff's syndrome
B.	Collagen disorders
C.	Parkinson's disease
D.	Motor Neurone disease
E.	HIV dementia
F.	Creutzfeld-Jakob disease
G.	Lewy body dementia
H.	Neurosyphilis
I.	Vascular dementia
J.	Wernicke's encephalopathy
K.	Alzheimer's dementia
L.	Huntingdon's disease
M.	Frontotemporal (Pick's) dementia

For each of the following presentations, please select the **MOST** likely disorder.

Please select only **ONE** option for each patient, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

13. Lydia, a 76-year-old woman, is referred to you with depression. Her husband complains that she is having difficulty finding words and that she no longer cares for herself properly. Lydia is dishevelled, with food stains on her blouse of which she seems unaware. Her speech shows poverty of content and paraphasias. She scores 26/30 on a Mini Mental State Examination, with good short-term recall but inability to copy the two pentagons accurately or to write a proper sentence. **M**
14. William, an 80-year-old man with no psychiatric history, presents with a two-month history of low mood, isolativeness, visual hallucinations and nihilistic ruminations. Over the past month he has become almost mute, and bed-bound. Myoclonic jerks are observed, and an electroencephalogram (EEG) shows sharp wave complexes. **F**
15. Richard, a 72-year-old man with a history of past Coronary Artery Bypass Graft surgery and leg pain on walking, is referred as his wife has noticed problems with his short-term memory. Richard says that he copes by making lists, and jokes that his wife helps him: "she remembers my appointments and I get the lids off jars for her". He presents as a pleasant and sociable man and he scores 21/30 on a Mini Mental State Examination. **I**
16. Bob, a 60-year-old ex-bartender, is referred from a residential hotel as the staff there are concerned that he has gradually become more disorganised and disoriented. On assessment, his anterograde memory is very poor, and he has an unsteady gait with peripheral numbness to touch. **A**

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	Cluster A personality disorder
B.	Brief psychotic disorder
C.	Schizophreniform disorder
D.	Depression with psychotic features
E.	Schizophrenia
F.	Delusional disorder
G.	Psychosis due to general medical condition
H.	Schizoaffective disorder
I.	Drug-induced psychosis
J.	Alcoholic hallucinosis
K.	Mania with psychotic features
L.	Temporal lobe epilepsy

For each of the following patients, please select the **MOST** appropriate diagnosis.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

17. Rainbow, a 49-year-old divorcee who calls herself an “aura therapist”, believes she can detect “auras” around people and thus diagnose their health status. Rainbow says that her ex-husband may be using supernatural powers to disrupt her current relationship. She is very interested in the occult. On assessment, she has overvalued ideas but no definite psychotic symptoms. Her sister says that she has always been like this. **A**

18. Sophie, a 36-year-old bank teller, is brought to the Emergency Department by police after they were called to the home of the married pastor of her church. She had been knocking on his door attempting to give him a letter and refusing to leave. For the last two years she has made many attempts to contact him, believing that they were “destined for each other”, and he had been forced to take out a court order when a solicitor’s letter had no effect on her behaviour. Sophie gives a clear account of her beliefs and copes well at work, where she is in a supervisory role. Her mood is euthymic. **F**

19. Margery, aged 33, suffered a serious head injury 10 years ago in a car accident. Her parents, with whom she lives, are concerned that her ideas are increasingly bizarre and that she is preoccupied with obscure religious texts. Margery tells you that she believes demons harass her at night and that she battles with them in her sleep, as she sometimes wakes to find that she has fallen out of bed. She says that she often senses “a presence” hovering at her shoulder. Her mother confirms that she has indeed fallen out of bed during the night on several occasions across the years.

**G** (likely to be nocturnal seizures causing her to fall out of bed, and a psychosis arising from the epilepsy)

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	Anticipation	I.	Displacement
B.	Suppression	J.	Reaction formation
C.	Denial	K.	Novelty seeking
D.	Rationalisation	L.	Sublimation
E.	Splitting	M.	Repression
F.	Regression	N.	Distortion
G.	Somatisation	O.	Altruism
H.	Projection	P.	Intellectualisation

For each of the following descriptions, please select the matching defense mechanism.

Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.

20. Unwanted impulses, thoughts or feelings are forced out of awareness. **B**
21. Explanations are offered by a person in an attempt to justify attitudes, beliefs or behaviour that may otherwise be unacceptable. **D**
22. An unacceptable or painful idea or feeling is withheld from consciousness. Impulses are inhibited to the point of losing, not just postponing, cherished goals. **M**
23. Impulse gratification is achieved by altering aims from socially objectionable to socially acceptable ones. Instincts are channelled rather than being blocked. Feelings are acknowledged, modified and directed towards a more acceptable object. **L**
24. An unconscious and unacceptable impulse or feeling that would cause anxiety is converted into its opposite so that it can become conscious and be expressed. **J**
25. The use of reasoning to block out emotional stress and conflict. Impulses are dealt with cognitively in formal, affectively bland terms so as not to act on them. **P**
26. Anxiety is reduced by allowing the expression of unacceptable impulses or emotions without conscious awareness of these, by attributing them to another. **H**

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	5-hydroxy indole acetic acid (5-HIAA)
B.	Glutamate
C.	Noradrenaline
D.	Glycine
E.	Dopamine
F.	Serotonin
G.	Acetylcholine
H.	Gamma-aminobutyric acid (GABA)

For each of the following statements, please select the **MOST** appropriate neurotransmitter.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

27. This neurotransmitter's receptors are part of ligand-gated ion channel complexes, or are G-protein-coupled. **H**
28. Neurons using this neurotransmitter originate from the basal optic nucleus of Meynert and the medial septal nucleus **G**
29. The most abundant excitatory neurotransmitter in the vertebrate nervous system. **B**
30. Synthesized from the amino acid tyrosine. **E**
31. Neurons producing this neurotransmitter have a chiefly inhibitory effect in the vertebrate nervous system. **H**
32. Tryptophan hydroxylase is the enzyme involved in the rate-limiting step in the synthesis of this neurotransmitter. **F**

33.

## Extended Matching Questions

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Each question is worth 1 mark.

A.	Dissociation
B.	Transient global amnesia
C.	Transient ischaemic attack
D.	Anterograde amnesia
E.	Dissociative identity disorder
F.	Fugue state
G.	Factitious amnesia
H.	Retrograde amnesia
I.	Psychogenic amnesia

For each of the following patients with memory difficulties, please select the **MOST** appropriate disorder.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

33. While talking about a distressing sexual assault she experienced as a teenager, Carmen, aged 33, describes a sense of detachment from her body and says that she feels she is watching herself through glass. **A**
34. Mr Collins, aged 65, has a history of coronary artery disease. He reports a brief period of loss of vision and memory. **C**
35. The car accident happened at 5 p.m., but although Bill recalls waking up in hospital the next morning, the day of the accident remains a complete blank. **H**
36. Joseph, aged 41, finds himself wandering around an unfamiliar railway station in another town, shortly after his wife says she wants a divorce. **F**
37. Malcolm, aged 78, cannot recall having had 6 electroconvulsive therapy treatments a month ago. **D**



# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	Actus reus
B.	Fitness to plead
C.	Mens rea
D.	Irresistible impulse
E.	Sane Automatism
F.	Provocation
G.	Forseeability
H.	Duress
I.	Donative Intent
J.	Natural Justice
K.	Disease of the mind

From the list above, please select a legal concept that is **MOST** relevant to the following situations.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

38. An employing mental health service makes all its staff complete training in breakaway and restraint techniques, during which a junior nurse suffers a stroke due to a previously unknown cerebral aneurysm. **G**
39. A young man kills his stepfather, believing that he is a demon. **K**
40. A male resident in an Intellectual Disability hostel sexually assaults a female resident. **C**
41. Mental Health Act legislation that requires the judge to allow the patient to be present throughout the proceedings. **J**
42. A forensic inpatient refuses legal assistance, saying that as she is the “Queen of Heaven” she will defend herself. **B**
43. A man with antisocial personality disorder is arrested for stealing a television after the police find his fingerprints at the crime scene. **A**

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	Bilateral temporal lobe
B.	Dorsolateral frontal lobe
C.	Lateral hypothalamus
D.	Caudate, putamen
E.	Orbitomedial frontal lobe
F.	Inferomedial temporal lobe
G.	Mammillary bodies
H.	Dominant parietal lobe
I.	Broca's area
J.	Ventromedial hypothalamus
K.	Wernicke's area
L.	Substantia nigra

For each of the following constellations of neuropsychiatric symptoms and signs, please select the area of the brain that is **MOST** likely to be damaged.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

44. Expressive aphasia    **I**

45. Apathy, reduced motivation, and impaired self-care.    **B**

46. Anosmia, amnesia with confabulation, Go-NoGo deficits.    **E**

47. Agraphia, acalculia, left-right disorientation, finger agnosia.    **H**

48. Hyperphagia and obesity.    **J**

49. Anterograde and retrograde amnesia.    **G**

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	Asperger's syndrome
B.	Paranoid personality disorder
C.	Schizoid personality disorder
D.	Post-traumatic stress disorder
E.	Avoidant personality disorder
F.	Generalised anxiety disorder
G.	Panic disorder with agoraphobia
H.	Obsessive-compulsive disorder
I.	Panic disorder
J.	Dependent personality disorder
K.	Obsessive-compulsive personality disorder
L.	Social phobia

For each of the following vignettes please select the **MOST** appropriate diagnosis from the list above.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

50. A 34-year-old female is referred to you by her General Practitioner with cracked, reddened hands. **H**
51. A 52-year-old data entry clerical worker presents with acute anxiety symptoms because his boss is asking him to work more quickly. He is not prepared to do this as he is "afraid of making mistakes". **K**
52. A 28-year-old factory worker is referred after an angry outburst at his workmates who ridiculed him for collecting labels off discarded cans. He presents with acute anxiety because he feels that they are "laughing at him". **A**
53. A 24-year-old male car mechanic presents complaining of shyness. He has "never had a girlfriend" and would like to have a close relationship. He says he has "no confidence" and is afraid of rejection. **E**
54. A 45-year-old woman gives a history of being assaulted and robbed in a cinema car park. She cannot get the incident out of her mind, thinking she could have been killed. She is now avoiding cinemas and hyperventilates whenever she goes near one. **D**

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	Cerebrovascular malformation
B.	Hypothyroidism
C.	Water intoxication
D.	Cryptococcal meningitis
E.	Normal pressure hydrocephalus
F.	Benign hydrocephalus
G.	Neuropsychiatric systemic lupus erythematosus (SLE)
H.	Neurosyphilis
I.	Hyperparathyroidism
J.	Wernicke's encephalopathy
K.	Neuroleptic malignant syndrome
L.	Inappropriate ADH syndrome

For each of the following presentations, please select the **MOST** likely disorder.

Please select only **ONE** option for each patient, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

- 55.** A 32-year-old woman with unusual health beliefs and a schizotypal personality disorder, believes that she must drink large amounts of filtered water "to detoxify". She is confused, with irritability and drowsiness, low serum sodium and low urinary osmolality. **C**
- 56.** A 50-year-old man disqualified from driving presents with mild confusion and a staggering gait. On assessment he is mildly hypertensive, has nystagmus and bilateral lateral rectus palsies. **J**
- 57.** A 45-year-old South African man presents with personality changes, memory loss and poor judgment. He is HIV positive and his pupils fail to accommodate properly. **H**
- 58.** A 42-year-old man with a past history of trips to Bangkok is erratic in taking his antiretroviral therapy. He presents with sudden onset of headache, confusion and prominent hallucinations. **D**

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	Clonazepam
B.	Gabapentin
C.	Combination anti-convulsant therapy
D.	Lithium carbonate
E.	Carbamazepine
F.	Topiramate
G.	Lamotrigine
H.	Sodium valproate
I.	None of the above

From the above psychopharmacological agents used prophylactically in the treatment of bipolar affective disorder, select the drug that **MOST** closely matches each of the following statements.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

59. This agent been associated with polycystic ovary syndrome, however the evidence is not clear. **H**
60. In bipolar affective disorder, this drug is more effective than placebo to prevent manic episodes. **D**
61. There is evidence from randomized controlled trials that this agent is effective in preventing rapid cycling disorder. **I**
62. In bipolar affective disorder, this drug is more effective than placebo in preventing episodes of depression but not in preventing manic episodes. **G**
63. If a mood stabilizer is essential in first trimester of pregnancy, this drug is the safest. **D**
64. Weight loss is a potential side-effect of this drug. **F**

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	AIMS
B.	Hamilton Depression Rating Scale
C.	Paired Associate Learning
D.	Y-BOCS
E.	Positive And Negative Symptom Scale
F.	CAGE
G.	Go-NoGo test
H.	Montgomery Asberg Depression Rating Scale
I.	YMRS
J.	Minnesota Multiphasic Personality Inventory
K.	Tridimensional Personality Questionnaire (TPQ)
L.	Stroop test
M.	Beck Depression Inventory
N.	GATES

Which test listed above BEST fits the description below.

Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.

65. A self-report assessment measuring the severity of depressive symptomology **M**

66. A test used to monitor the subject's response to anti-manic medication **I**

67. A test which scores the subject's level of harm-avoidance **K**

68. A personality assessment developed in the USA in the 1940s **J**

69. A test used to assess selective attention **L**

70. A test that assesses obsessive-compulsive symptoms **D**

# Extended Matching Questions

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Each question is worth 1 mark.

A.	Adrenogenital syndrome
B.	Testicular feminisation syndrome (Androgen insensitivity syndrome)
C.	Klinefelter's syndrome
D.	Anorexia nervosa
E.	Transvestic Fetishism
F.	Turner's syndrome
G.	Polycystic ovarian syndrome
H.	Pseudohermaphroditism
I.	Gender identity disorder

For each of the following patients, please select the **MOST** likely diagnosis from the list above.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

71. A young woman aged 16, with an XX chromosome pattern, has a BMI below the 5<sup>th</sup> percentile. Her limbs are covered with increased amounts of soft, fine hair. **D**
72. A girl with short stature and a webbed neck is found, on investigation to have dysgenesis of the gonads and an XO chromosome pattern. **F**
73. A woman investigated for infertility has an XX chromosome pattern. She has very irregular and sparse periods, and is moderately hirsute. On testing she has a raised fasting glucose. **G**
74. A young girl with an XX chromosome pattern initially refuses to urinate sitting down and will not wear anything but jeans and t-shirts. She prefers sports like soccer and hockey. Her first sexual experience in adolescence is with a female friend. **I**
75. A tall young man has a rounded body-type and is teased at school for his gynaecomastia. Investigation reveals an XXY chromosomal pattern. **C**
76. A young man with an XY chromosome pattern has an emotionally abusive upbringing and is confused about his identity. He derives guilty pleasure from wearing women's underwear. He becomes a career soldier but cannot stop the cross-dressing and is dishonourably discharged when this is discovered. **E**

# Extended Matching Questions

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Each question is worth 1 mark.

A.	Alcohol withdrawal
B.	Culture-bound syndrome
C.	Hallucinogen use
D.	Schizophrenia
E.	Bereavement reaction
F.	Stimulant intoxication
G.	Unipolar depression with psychotic features
H.	Bipolar affective disorder - depressed phase
I.	Dementia Alzheimer's type
J.	Bipolar affective disorder - manic phase
K.	Alcoholic hallucinosis
L.	Dementia Lewy-body type

For each of the following patients presenting with auditory hallucinations, please select the **MOST** likely disorder.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

77. Eric, aged 57, lives in a cheap residential hotel. He is referred for the first time due to swearing at passers-by, which he has apparently been doing for four months. He says he is "fed up with hearing these bastards putting me down all the time, everywhere I go." **K**
78. Shane, aged 16, has a history of conduct problems and was recently diagnosed with attention deficit hyperactivity disorder (ADHD). He presents in a paranoid state and complains that people are "talking stink" about him. **F**
79. Ronald, aged 43, presents two weeks after his wife's sudden death; they had been married for nearly 25 years. He says that he is "devastated" and that often at night when he can't sleep, he can see his wife and hear her talking to him. **E**
80. Jamal, a 23-year-old Malaysian man, presents to the Emergency Department asking to have his tooth removed as he believes a "bug" has been implanted in it to relay information about him to the authorities in his home country. **D**
81. Tony, aged 37 and recently divorced, complains of derogatory voices saying he is "no good and worthless". He reports a similar episode in his twenties when he believed he emitted a foul odour. The voices are so disturbing that he finds himself unable to sleep and he is contemplating suicide. **G**



# Extended Matching Questions

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Each question is worth 1 mark.

A.	Mental retardation
B.	Borderline personality disorder
C.	Conduct disorder
D.	Adjustment disorder with mixed disturbance of emotions and conduct
E.	Oppositional defiant disorder
F.	Antisocial personality disorder
G.	Asperger's syndrome
H.	Learning disorder
I.	Adjustment disorder with depressed mood
J.	Paranoid personality disorder
K.	Pervasive developmental disorder
L.	Substance abuse disorder
M.	Narcissistic personality disorder
N.	Adjustment disorder with disturbance of conduct

For each of the following patients presenting with a conduct problem, please select the most likely disorder.

Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.

82. Joe, aged 17, is referred by the courts for a psychiatric assessment. He is charged with setting a fire which destroyed one of the equipment sheds in his school's grounds and was arrested in the company of other youths in an intoxicated state. He has a previous history of poor school achievement, truancing, self-harm and juvenile offending. **C**
83. Damien, aged 14, attends a special school. He is charged by the police for sexually interfering with a 3-year-old girl. He has poorly developed language skills, is unable to read or write and has problems with continence. **A**
84. Mick, a 27-year-old unemployed man, is charged with fraud. He says that he perpetrated these crimes in order to show the businesses concerned their vulnerabilities. He describes himself as a world authority in computer hacking and plans to write a bestselling book on the topic. **M**
85. Sally, a 15-year-old girl in a foster family placement, becomes sad and withdrawn when her birth mother phones to say she cannot attend Sally's birthday party. A week later, Sally is caught shoplifting. She says that she "doesn't care" what happens to her. **D**

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	Benzodiazepine
B.	Methylenedioxymethamphetamine
C.	Tobacco
D.	Lysergic acid
E.	Alcohol
F.	Cannabis
G.	Benzotropine
H.	Inhalant
I.	Opiate
J.	Caffeine
K.	Psilocybin
L.	Methamphetamine

For each of the following medical sequelae, please select the **MOST** relevant substance of abuse from the list above.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

**86.** A 57-year-old waiter is admitted with acute abdominal pain and haematemesis. **E**

**87.** A 26-year-old man with schizoaffective disorder presents to the Emergency Department flushed, disoriented and tachycardic, with dilated pupils. **G**

**88.** A 15-year-old homeless youth is found dead in an alley, having aspirated vomit. **H**

**89.** An 8-year-old boy has developmental and learning deficits, abnormal facial features and behavioural problems. **E**

**90.** A 60-year-old retired journalist requires an oxygen cylinder at home. **C**

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	Echopraxia
B.	Perseveration
C.	Coprolalia
D.	Catatonia
E.	Verbigeration
F.	Agitation
G.	Dyspraxia
H.	Motor tic
I.	Dysgraphia
J.	Clanging
K.	Gegenhalten
L.	Dyskinesia
M.	Cluttering
N.	Tangentiality
O.	Tremor
P.	Neologisms

Which abnormality of speech or behaviour is the MOST likely to be demonstrated by each of the following examples.

Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.

91. A 24 year old acutely admitted young man displays driven, erratic but purposeless bursts of movement, alternating with unresponsive immobility. **D**
92. A 77 year old woman in a rest home repeats words and phrases frequently during an assessment interview. **B**
93. A 19 year old youth commenced on risperidone as an outpatient develops acute blephorospasm. **L**
94. A 35 year old woman who ceased taking her clozapine one week previously demonstrates stereotypical, senseless repetition of words and phrases. **E**
95. A 14 year old boy gets into trouble at school for sudden swearing outbursts. His father was similarly affected. **C**

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	Automatic thoughts
B.	All-or-nothing thinking
C.	Overgeneralization
D.	A schema
E.	“Fortune teller” cognitive distortions
F.	The cognitive triad
G.	Personalization
H.	Disqualifying the positive
I.	Catastrophising
J.	Emotional reasoning
K.	Mislabelling

Which concept listed above is **BEST** defined by each of the following answers.

Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

96. A cognitive framework which helps us organize and make sense of information. **D**

97. Negative cognitions about oneself, the world and the future. **F**

98. Autonomous, often private cognitions that flow rapidly in the stream of everyday thinking and may not be carefully assessed for accuracy or relevance. **A**

99. The person sees themselves as the cause of some negative event for which in fact they were not primarily responsible. **G**

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	Pathological grief
B.	Cyclothymia
C.	Bipolar disorder type I
D.	Psychotic depression
E.	Rapid cycling bipolar disorder
F.	Atypical major depression
G.	Anankastic personality disorder
H.	Cotard's syndrome
I.	Borderline personality disorder
J.	Double depression
K.	Dysphoric mania
L.	Melancholic depression
M.	Obsessive compulsive disorder
N.	Bipolar disorder type II
O.	Normal grief
P.	Dysthymic disorder

Which diagnosis listed above is **MOST** appropriate for each of the following examples. Please select only **ONE** option, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

- 100.** Due to prolonged stress at work, Helen becomes extremely irritable, arguing with her husband and often bursting into tears. She is acutely sensitive now to any suggestion of criticism. She copes by eating chocolate, and sleeps much of the day at the weekend, to "get away from it all". **F**
- 101.** After an emotionally deprived childhood, Mark, aged 27, has persistently low self-esteem and his mood is mildly depressed. He manages to work as a shop assistant but feels exhausted and unappreciated at the end of the day. His sleep and appetite are reasonable, but he says that his concentration is always somewhat low. He has no other depressive symptoms and is not suicidal. **P**
- 102.** Jodie's moods are erratic. She is very influenced by day-to-day events, and hates to eat alone. Sometimes she cuts her arms so as to feel more real. **I**
- 103.** After a more severe major depression in her thirties, Betsy is now, in her fifties, predominantly mildly depressed. She has also had two episodes of hypomania across the years. **N**

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	Pimozide
B.	Clozapine after 3 weeks treatment
C.	Olanzapine
D.	Clozapine after 6 months treatment
E.	Haloperidol
F.	Thioridazine
G.	Risperidone
H.	Sertindole
I.	Droperidol
J.	Quetiapine

Which medication listed above is the MOST likely to cause each of the following electrocardiogram (ECG) findings.

Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.

104. QTc prolongation.    **F**

105. Inverted T waves.    **B**

106. Diffuse S-T elevation.    **B**

107. Torsades des pointes.    **F**

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	Confrontation
B.	Bibliotherapy
C.	Detoxification
D.	Psychoeducation
E.	Cognitive behavioural therapy
F.	12-step programme
G.	AUDIT
H.	Prochaska & DiClemente's Wheel of Change
I.	Motivational interviewing
J.	Harm minimisation
K.	Replacement therapy
L.	Therapeutic community
M.	CAGE

Which item related to the treatment of alcohol abuse, listed above, is BEST described by each of the following examples.

Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.

**108.** A 10-item screening tool used to assess clients with hazardous and harmful patterns of alcohol consumption. **G**

**109.** A client-centered, semi-directive method of engaging intrinsic motivation to change behavior by developing discrepancy and exploring and resolving ambivalence within the client. **I**

**110.** The provision of books or other written information for clients to read between appointments with their case-worker or doctor. **B**

**111.** A range of pragmatic and evidence-based public health policies designed to reduce the risks associated with drug and alcohol use. **J**

# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	Marital therapy
B.	Brief psychodynamic psychotherapy
C.	Motivational interviewing
D.	Exposure and response prevention
E.	Cognitive behavioural therapy
F.	Supportive therapy
G.	CBT-oriented group therapy
H.	Dialectical behavioural therapy
I.	Adherence therapy
J.	Expressive therapy
K.	Interpersonal therapy
L.	Systematic desensitisation
M.	Longer-term psychodynamic therapy
N.	Solution-focussed therapy
O.	Family therapy

Which intervention listed above is MOST appropriately linked to each of the following examples.

Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.

112. The “strategic therapy” model was influenced by systems theory.    **O**

113. Useful to treat simple phobias.    **L**

114. Requires the client to have clearly defined goals and minimal resistance.    **B**

115. Interpersonal Deficits or Grief are two possible areas of focus.    **K**



# Extended Matching Questions

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 1 mark.

A.	Phenomenological qualitative research
B.	Unstructured interview data collection
C.	Snowball sampling
D.	Data collection using video recordings
E.	Selection bias in qualitative research
F.	Latent level of analysis
G.	Data collection by note-taking
H.	Data collection using documentation
I.	Semi-structured interview data collection
J.	Grounded Theory
K.	Focus group data collection
L.	Constant Comparative Analysis
M.	Ethnographic qualitative research
N.	An extended case study
O.	Manifest level of analysis
P.	Highly structured interview data collection

Which qualitative research concept listed above is BEST demonstrated by each of the following examples.

Please select only ONE option, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.

116. A qualitative researcher studying a health service collects the organisation's policies, mission statements, annual reports, memos and notices pinned to notice boards. **H**

117. Emphasises the generation of themes and then hypotheses, from accumulated data. **J**

118. A qualitative study describing and analysing organisational change during the restructuring of an indigenous mental health service, across a period of a year. **N**

119. Originated with Glaser and Strauss' work in the 1960s on the interactions between health care professionals and dying patients. **J**

120. A qualitative research project looks at the experience and concept of "consumers" - what does this actually mean and what is it like to be a "consumer"? **A**

<b>Extended Matching Questions</b>
------------------------------------

**Questions 121 to 130**

**THE FOLLOWING QUESTIONS ARE WORTH TWO MARKS EACH.  
ONE MARK FOR EACH CORRECT ANSWER.**

**Do not answer questions in this booklet.**

**Use the separate answer sheet and pencil provided.**

## Extended Matching Questions:

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 2 marks. One mark for each correct answer.

A.	Dothiepin
B.	Paroxetine
C.	Clomipramine
D.	Clozapine
E.	Haloperidol
F.	Quetiapine
G.	Diazepam
H.	Citalopram
I.	Lithium carbonate
J.	Venlafaxine
K.	Doxepin
L.	Imipramine
M.	Risperidone
N.	Clonazepam

For each of the following examples of adverse effects, select the TWO most likely causative medications from the list above.

Please select TWO options for each question, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.

**121.** Very soon after abruptly ceasing her medication, Valerie presents acutely in a state of panic, complaining of nausea, dizziness, headache, vertigo and nightmares. **B J**

**122.** While taking this medication, David develops galactorrhoea and restlessness. **E M**

## Extended Matching Questions:

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 2 marks. One mark for each correct answer.

A.	Chest X-Ray
B.	Serum clozapine
C.	Renal function tests
D.	Creatine kinase (CK)
E.	Urea and electrolytes
F.	Magnetic resonance imaging (MRI)
G.	Computerised axial tomography (CT) scan
H.	Electroencephalograph (EEG)
I.	Fasting blood glucose
J.	Echocardiograph
K.	Full blood count
L.	Thyroid function tests
M.	Electrocardiogram (ECG)
N.	Serum iron

For each of the following examples, select the **TWO** next most important investigations from the list above.

Please select **TWO** options for each question, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

**123.** A 23-year-old man with a history of chronic schizophrenia titrated up to clozapine 250 mg in the last 3 weeks is found to have tachycardia, a low-grade fever and flu-like symptoms. Routine clozapine-monitoring blood testing was normal 5 days ago. **K M**

**124.** A 23-year-old man with a history of chronic schizophrenia is titrated up to 6 mgs risperidone daily across three months. Over a weekend he becomes mute, with tachycardia and low-grade fever. Tone in his limbs is increased. **D K**

## Extended Matching Questions:

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 2 marks. One mark for each correct answer.

<b>A.</b>	<b>Autonomy</b>
<b>B.</b>	<b>Justice</b>
<b>C.</b>	<b>Beneficence</b>
<b>D.</b>	<b>Non-maleficence</b>

For each of the following situations, select the **TWO** most relevant ethical principles involved.

Please select **TWO** options for each question, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

**125.** A 25-year-old man with bipolar depression is admitted after attempting suicide due to derogatory command hallucinations. He is later restrained and forcibly given intramuscular antipsychotic medication, having refused to take this orally. **A C**

**126.** A 38-year-old woman with chronic treatment-resistant schizophrenia applies to read her case notes. Her request is refused as it is felt that her mental state is too unstable, and that reading distressing details in her file would increase her risk of suicide. **A D**

## Extended Matching Questions:

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 2 marks. One mark for each correct answer.

A.	Conduct disorder
B.	Attention deficit disorder without hyperactivity
C.	Oppositional defiant disorder
D.	Rumination disorder
E.	Avoidant personality disorder
F.	Panic disorder with agoraphobia
G.	Attention deficit disorder with hyperactivity
H.	Mild mental retardation
I.	Selective (or elective) mutism
J.	Separation anxiety disorder
K.	Reactive Attachment Disorder
L.	Pervasive developmental disorder
M.	Social phobia
N.	Tourette's disorder

For each of the following examples, select the TWO most appropriate differential diagnoses from the list above.

Please select TWO options for each question, BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.

**127.** Sylvie, aged 12, has a panic attack at school and has to be brought home. She becomes very anxious and hyperventilates in the mornings, before being taken to school, and her attendance is increasingly poor. **F J**

**128.** Five weeks after starting kindergarten, Jared's teacher is concerned that he is still not talking at all, despite encouragement. **I L**

## Extended Matching Questions:

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

Each question is worth 2 marks. One mark for each correct answer.

A.	Cease electro-convulsive therapy (ECT)
B.	Cease sodium valproate
C.	Change electrode placement to unilateral
D.	Reduce frequency of ECT treatments to weekly
E.	Administer intravenous lorazepam post-ECT
F.	Cease methotrimeprazine
G.	Commence regular clonazepam for agitation
H.	Reduce frequency of ECT treatments to twice weekly
I.	Cease citalopram
J.	Make no changes to medication
K.	Cease lithium carbonate
M.	Make no changes to the way ECT is administered

For each of the following clinical presentations, please select the **TWO** most appropriate next steps in management.

Please select **TWO** options for each question, **BUT ANY OPTION MAY BE USED MORE THAN ONCE, IF REQUIRED.**

**129.** A 68-year-old man is about to commence a course of electro-convulsive therapy for a severe bipolar depression. His regular medication is sodium valproate 1000mgs daily, lithium carbonate 750 mgs nocte, citalopram 40mgs daily, and small doses of methotrimeprazine to help him sleep and to relieve daytime agitation. **B K**

**130.** A 79-year-old man with a severe psychotic depression commences electro-convulsive therapy treatments three times weekly with a bitemporal electrode placement. After three treatments, however, his degree of confusion and restlessness after each treatment is becoming problematic. **C H**



**THE ROYAL AUSTRALIAN AND NEW ZEALAND COLLEGE OF  
PSYCHIATRISTS**

# CRITICAL ANALYSIS PROBLEMS

## **MOCK EXAMINATION**

**Paper I**

**December 2010 / May 2011**

## **DIRECTIONS**

**Do not answer questions in this booklet.**

**Use the separate answer sheet and pencil provided.**

**SELECT ONLY AS MANY ANSWERS AS INSTRUCTED**

**(one mark for each correct answer)**

**Note: in any question, selecting *more* answers than instructed  
will incur a mark of zero for that question**



## Critical Analysis Question **1** (20 marks)

Please read the abstract, excerpts, tables and figures, and answer the questions, based on this information and your other knowledge.

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

### Severity of depression and risk for subsequent dementia: cohort studies in China and the UK

The British Journal of Psychiatry (2008) 193, pp. 373–377

Authors: R. Chen, Zhi Hu, Li Wei, Xia Qin, C. McCracken and J. R. Copeland

**Background** Depression and dementia often exist concurrently. The associations of depressive syndromes and severity of depression with incident dementia have been little studied.

**Aims** To determine the effects of depressive syndromes and cases of depression on the risk of incident dementia.

**Method** Participants in China and the UK aged  $\geq 65$  years without dementia were interviewed using the Geriatric Mental State interview and re-interviewed 1 year later in 1254 Chinese, and 2 and 4 years later in 3341 and 2157 British participants respectively (Ageing in Liverpool Project Health Aspects: part of the Medical Research Council – Cognitive Function and Ageing study).

**Results** Incident dementia was associated with only the most severe depressive syndromes in both Chinese and British participants. The risk of dementia increased, not in the less severe cases of depression but in the most severe cases. The multiple adjusted hazard ratio (HR)=5.44 (95% CI 1.67–17.8) for Chinese participants at 1-year follow-up, and HR=2.47 (95% CI 1.25–4.89) and HR=2.62 (95% CI 1.18–5.80) for British participants at 2- and 4-year follow-up respectively. The effect was greater in younger participants.

**Conclusions** Only the most severe syndromes and cases of depression are a risk factor for dementia.

**[Excerpt from Methods: Assessment]** A computer program assisted diagnosis – the Automated Geriatric Examination for Computer Assisted Taxonomy (AGECAT) – was used to analyse the information from the GMS to identify the principal mental disorders in participants. It was developed using a theoretical model and tested against its success at replicating diagnoses on samples diagnosed by psychiatrists. It attempts to replicate the process by which a psychiatrist achieves a syndromal diagnosis followed by a differential diagnosis. ... Individual participants are allocated to levels of confidence of diagnosis (0–5) on each of the eight diagnostic syndromes: organic disorder, depression, mania, schizophrenia and paranoid, obsessional, phobic, hypochondriacal, and general anxiety. ... the various syndrome levels are compared to derive a final differential diagnosis, a level of confidence of diagnosis from 0–5. A level of  $\geq 3$  in most circumstances designates a ‘case level’ that has been shown to correspond with what psychiatrists usually recognise as a case for intervention. Levels 1 and 2 are designated as ‘sub-cases’, and level 0 (no confidence level on any syndrome) is classified as ‘well’. ... The AGECAT also divides depression into psychotic and neurotic types that appear to equate well with DSM–III/DSM–IV major depression, and dysthymia without the 2-year rule.

Although the levels are intended to be levels of confidence of diagnosis, it has been our observation that, in those conditions where diagnosis tends to be on a continuum with normality, for example in cognitive decline and depression, the different levels tend also to reflect levels of severity in terms of type and numbers of symptoms.

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

## Critical Analysis Question 1

### Question 1.1

Select TWO options below that best apply to this study: (2 marks)

(Please select ONLY two options: more than two answers will incur a mark of zero)

A.	Case control study
B.	Cross-sectional
C.	Epidemiological
D.	Retrospective
E.	Randomised trial
F.	Prognostic

Correct: C and F

### Question 1.2

Select THREE incorrect statements from the options below, regarding the assessment methodology used in this study: (3 marks)

(Please select ONLY three options: more than three answers will incur a mark of zero)

A.	Level 1 depressive syndrome on AGECAAT is a sub-case diagnosis
B.	AGECAAT “neurotic depression” equates to DSM-IV “Major Depression without psychotic features”
C.	Level 0 depressive syndrome on AGECAAT equates to wellness
D.	Level 2 depressive syndrome on AGECAAT reliably indicates “case level” diagnosis
E.	In its development, AGECAAT results were compared to clinical diagnoses made by psychiatrists
F.	Level 0 depressive syndrome on AGECAAT indicates participants with no depressive symptoms
G.	Level 5 depressive syndrome on AGECAAT reliably indicates “case level” diagnosis
H.	Level 3 depressive syndrome on AGECAAT is a sub-case diagnosis

Correct: B, D and H

**Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.**

<b>Table 1</b> Number, percentage and relative risk of incident dementia across baseline depressive syndromes						
Depressive syndrome at baseline	Chinese participants (1-year follow-up)		British participants (2-year follow-up)		British participants (4-year follow-up)	
	Incident dementia n/N (%)	Adjusted HR <sup>a</sup> (95% CI)	Incident dementia n/N (%)	Adjusted HR <sup>a</sup> (95% CI)	Incident dementia n/N (%)	Adjusted HR <sup>a</sup> (95% CI)
Level 0 <sup>b</sup>	67/1178 (5.7)	1.00	155/2601 (6.0)	1.00	137/1720 (8.0)	1.00
Level 1	4/24 (16.7)	Combined with level 2	17/204 (8.3)	1.57 (0.95–2.61)	15/131 (11.5)	1.34 (0.77–2.34)
Level 2	0/22 (0.0)	1.15 (0.41–3.21)	12/225 (5.3)	0.79 (0.44–1.43)	7/125 (5.6)	0.55 (0.25–1.21)
Level 3	1/26 (3.8)	0.58 (0.08–4.26)	12/236 (5.1)	0.95 (0.52–1.71)	9/143 (6.3)	0.85 (0.43–1.68)
Level 4	3/4 (75.0)	5.05 (1.56–16.3)**	10/75 (13.3)	2.13 (1.12–4.06)*	8/38 (21.1)	2.45 (1.17–5.15)*

a. Adjusted for age, gender, educational level, and cardiovascular diseases (hypertension, angina, coronary or other heart diseases and stroke).  
b. All participants without any depressive syndromes.  
\* $P \leq 0.05$ ; \*\* $P \leq 0.01$ .

Differences in the increased hazard ratio (HR) between Level 4 Chinese and British participants

$P > 0.20$

### Question 1.3

**Regarding Table 1, select THREE correct statements from the list below: (3 marks)**

**(Please select ONLY three options: more than three answers will incur a mark of zero)**

A.	The Hazard Ratio is an estimate of Relative Risk
B.	Compared to Level 2, those with no depressive syndrome had a significantly reduced risk of dementia
C.	British participants had a significantly increased Hazard Ratio compared to Chinese participants
D.	Participants with Level 3 depressive syndrome had significantly increased risk of dementia
E.	Differences in the increased Hazard Ratio at Level 4 between Chinese & British participants were not statistically significant
F.	Participants with Level 2 depressive syndrome had significantly increased risk of dementia
G.	Participants with Level 4 depressive syndrome had significantly increased risk of dementia
H.	Chinese participants had a significantly increased Hazard Ratio compared to British participants

**Correct: A, E and G**

**[Excerpt from Results]** ... individuals with level 4 depression had ... more antidepressant drug use (benzodiazepines 37.0% v. 21.6%,  $P=0.001$ ; tricyclic antidepressants, selective serotonin reuptake inhibitors, lofepramine and others 17.6% v. 8.0%,  $P=0.004$ ). After further adjustment for these medications, the results were not substantially changed; multiple adjusted HR for incident dementia was 2.41(95% CI 1.20–4.85) and 2.54 (1.13–5.69) in the 2- and 4-year follow-up respectively.

### Question 1.4

**Regarding this excerpt, select THREE correct statements from the list below: (3 marks)**

**(Please select ONLY three options: more than three answers will incur a mark of zero)**

A.	Multiple adjusted HR for dementia was not less than 1.20 in the 2-year follow-up group
B.	If the study were repeated in a similar population the adjusted HR at 4 years would be between 1.13 and 5.69
C.	Multiple adjusted HR for dementia was not more than 2.41 in the 2-year follow-up group
D.	Multiple adjusted HR for dementia was not more than 5.69 in the 4-year follow-up group
E.	If the study was bigger the confidence interval at 4 years for the adjusted HR would be larger
F.	Multiple adjusted HR for dementia was between 1.20 and 4.85 in the 2-year follow-up group

**Correct: C, D and F**

### Question 1.5

Select **FIVE** correct statements from the list below regarding the limitations of this study:  
(5 marks)

(Please select **ONLY** five options: more than five answers will incur a mark of zero)

A.	Detailed analysis of participants with depression levels 3 and 4 was not possible as the numbers with depression and dementia were small.
B.	In the Chinese cohort, dementia may have been be over-diagnosed because more illiterate participants were included.
C.	There are likely to have been difficulties obtaining informed consent in the Chinese cohort.
D.	Likely to be difficulty generalising the findings to patients in high-income countries with literate populations.
E.	The study could not separate dementia into Alzheimer's disease, vascular dementia, or both, in order to examine their associations with depression.
F.	The AGECAT analysis did not distinguish between DSM-IV Major Depression with and without psychotic features
G.	The follow-up in the Chinese cohort was relatively short (1 year).
H.	GMS with AGECAT has been validated to date only in high-income countries with literate populations.

Correct: A, B, E, G and H

### Question 1.6

Select the **FOUR** most likely sources of bias affecting the study's results, from the list below:  
(4 marks)

(Please select **ONLY** four options: more than four answers will incur a mark of zero)

A.	Selection bias, in that informed consent for participation was required, thus possibly excluding the most severely depressed participants (no Level 5 depressive syndromes).
B.	An unknown confounding factor.
C.	Lead-time bias from the study extending across 4 years with UK participants but only across 1 year with Chinese participants.
D.	Bias from lack of randomisation in the cohorts selected.
E.	Detection bias in that evaluators administering the GMS anticipated co-occurrence of depressive and cognitive symptoms thus scored inaccurately.
F.	Funding bias in that there may have been selection of outcomes or assessment procedures to favour the study's financial sponsor.
G.	Systematic bias such as lack of specificity in the GMS with AGECAT so that cognitive deficits in severe depression led to inaccurate dementia-syndrome diagnoses.
H.	Data-snooping bias from the misuse of data-mining techniques.

Correct: A, B, E and G

## Critical Analysis Question **2** (20 marks)

Please read the abstract, excerpts, tables and figures, and answer the questions, based on this information and your other knowledge.

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

### **Short-Term Psychodynamic Psychotherapy and Cognitive-Behavioral Therapy in Generalized Anxiety Disorder: A Randomized, Controlled Trial**

*Falk Leichsenring, Simone Salzer, Ulrich Jaeger, Horst Kachele, Reinhard Kreische, Frank Leweke, Ulrich Ruger, Christel Winkelbach, Eric Leibing. Am. J. Psych. 2009; 166:875–881.*

**Objective:** While several studies have shown that cognitive-behavioral therapy (CBT) is an efficacious treatment for generalized anxiety disorder, few studies have addressed the outcome of short-term psychodynamic psychotherapy, even though this treatment is widely used. The aim of this study was to compare short-term psychodynamic psychotherapy and CBT with regard to treatment outcome in generalized anxiety disorder.

**Method:** Patients with generalized anxiety disorder according to DSM-IV were randomly assigned to receive either CBT (N=29) or short-term psychodynamic psychotherapy (N=28). Treatments were carried out according to treatment manuals and included up to 30 weekly sessions. The primary outcome measure was the Hamilton Anxiety Rating Scale, which was applied by trained raters blind to the treatment conditions. Assessments were carried out at the completion of treatment and 6 months afterward. **Results:** Both CBT and short-term psychodynamic psychotherapy yielded significant, large, and stable improvements with regard to symptoms of anxiety and depression. No significant differences in outcome were found between treatments in regard to the primary outcome measure. These results were corroborated by two self-report measures of anxiety. In measures of trait anxiety, worry, and depression, however, CBT was found to be superior.

**Conclusions:** The results suggest that CBT and short-term psychodynamic psychotherapy are beneficial for patients with generalized anxiety disorder. In future research, large-scale multicenter studies should examine more subtle differences between treatments, including differences in the patients who benefit most from each form of therapy.

#### **[Excerpt from Methods]**

This study was carried out in the Department of Psychosomatic Medicine and Psychotherapy at the Georg-August-University Goettingen between May 2001 and June 2007. It was approved by the ethics committee of the university's school of medicine. After providing their informed consent, the patients were randomly allocated to the two treatment groups. An investigator allegiance effect was controlled for by including representatives of both short-term psychodynamic psychotherapy (F. Leichsenring, S.S.) and CBT (E.L., C.W.) in the trial.

The inclusion criteria required subjects to be between 18 and 65 years old and to have a primary diagnosis of generalized anxiety disorder. Primary diagnosis was defined as the most severe mental disorder according to the Anxiety Disorders Interview Schedule -Revised. The following exclusion criteria were applied: 1) any acute, unstable, or severe axis III medical disorder that might interfere with the successful completion of treatment, 2) any current or past history of schizophrenic disorder, bipolar disorder, or cluster A or B axis II disorder, 3) any current or past neurological disorder, 4) alcohol or substance dependence or abuse, an eating disorder, or major depression in the previous 12 months, and 5) current concomitant psychotherapeutic or psychopharmacological treatment.

## Critical Analysis Question 2

### Question 2.1

Select ONE INCORRECT statement from the options below: (1 mark)

(Please select ONLY one option: more than one answer will incur a mark of zero)

A.	Investigator allegiance in this study was managed by inclusion of representatives of both types of therapy in the research group
B.	Pearson's $r$ of 0.85 from a meta-analysis examining the correlation between the mean of 3 measures of the researcher's allegiance and the outcome of the treatments compared indicates a significant investigator allegiance effect
C.	Investigator allegiance is a known problem in psychotherapy research
D.	Investigator allegiance bias results in poor randomisation
E.	Investigator allegiance has been demonstrated in more than one meta-analysis of psychotherapy research
F.	Investigator allegiance in this study was managed by use of raters blind to the treatment conditions

Correct: D

### Question 2.2

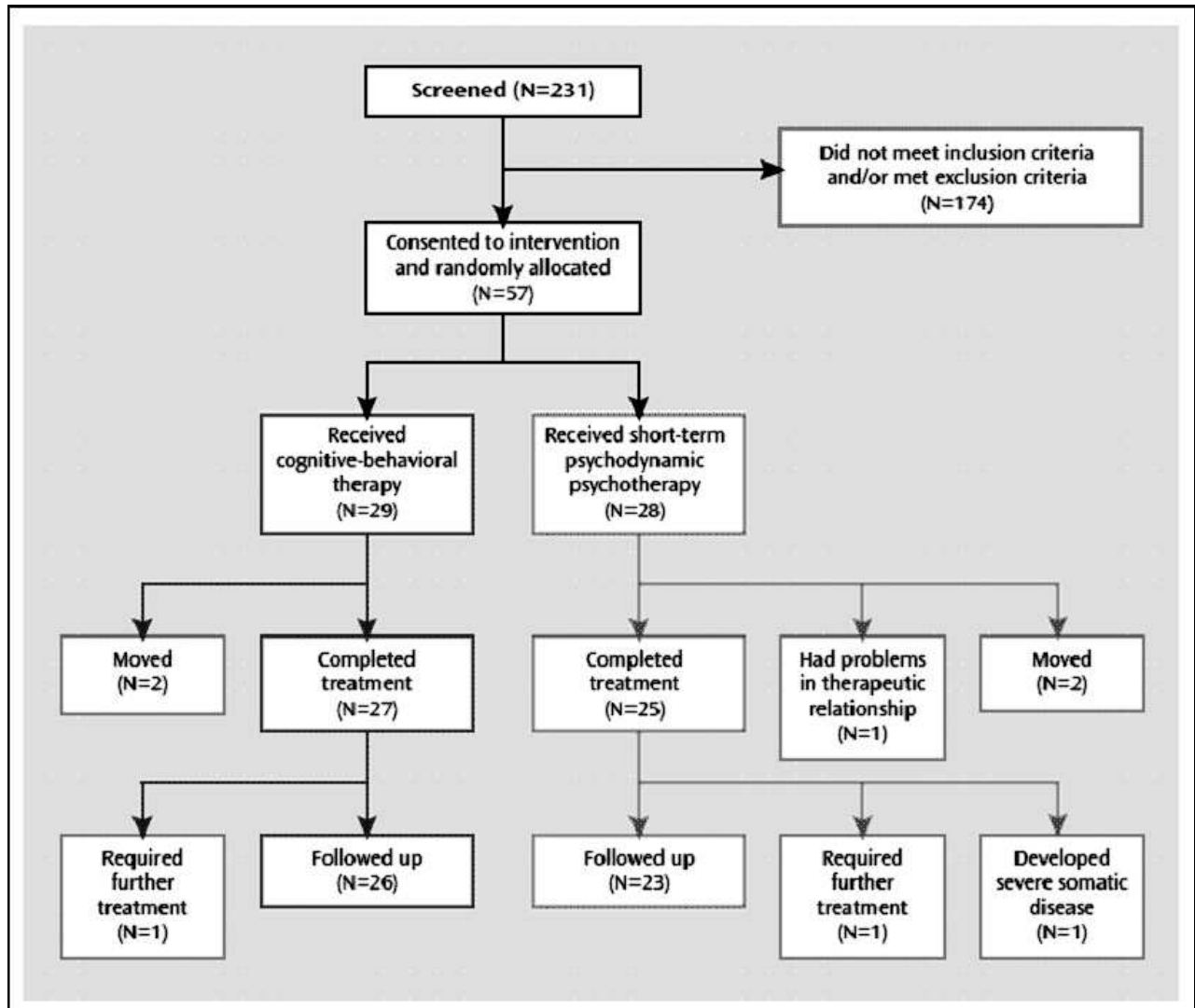
Select ONE CORRECT statement from the options below: (1 mark)

(Please select ONLY one option: more than one answer will incur a mark of zero)

A.	Subjects were allowed to have only a Generalised Anxiety Disorder diagnosis on Axis I
B.	Exclusion of subjects with schizophrenic disorder or bipolar disorder makes it hard to generalise the study's results to usual clinical settings
C.	All subjects with Axis II Personality Disorder diagnosis were excluded
D.	Subjects with any history of major depression were excluded from the study
E.	Exclusion of subjects with substance abuse and cluster B personality disorder may make it hard to generalise the study's results to usual clinical settings
F.	No subjects with more than one diagnosis on Axis I were allowed to be included
G.	Subjects taking psychotropic medication were included in the study

Correct: E

Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.



### Question 2.3

*Intention to treat* analysis was used. How many subjects are in the *intention to treat* study group?

Select ONE correct answer from the options below: (1 mark)

(Please select ONLY one option: more than one answer will incur a mark of zero)

A.	231
B.	57
C.	52
D.	49
E.	8

Correct: B



**Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.**

<b>TABLE 2. Outcome Measure Scores at Baseline, End of Therapy, and 6-Month Follow-Up for Patients With Generalized Anxiety Disorder Who Received Cognitive-Behavioral Therapy or Short-Term Psychodynamic Psychotherapy</b>						
Variable and Time Point	Cognitive-Behavioral Therapy (N=29)		Short-Term Psychodynamic Psychotherapy (N=28)		Repeated-Measures Analysis of Variance (F)	
	Mean	SD	Mean	SD	Time (df=1, 55)	Time-by-Treatment Interaction (df=1, 55)
Hamilton Anxiety Rating Scale						
Baseline	25.90	5.83	25.00	4.18		
End of therapy	12.76	6.65	14.29	6.43	160.86***	1.66
6-month follow-up	12.52	6.36	14.89	7.10	154.83***	3.01
Penn State Worry Questionnaire						
Baseline	63.48	6.97	58.86	8.30		
End of therapy	49.86	8.70	52.75	9.34	69.47***	10.08***
6-month follow-up	50.34	8.38	53.64	8.34	78.86***	14.70***
State-Trait Anxiety Inventory trait measure						
Baseline	58.83	8.70	55.68	8.03		
End of therapy	43.41	10.01	47.18	11.05	91.89***	7.68**
6-month follow-up	43.14	10.21	47.82	11.39	82.34***	9.11**
Beck Anxiety Inventory						
Baseline	24.59	10.86	24.21	10.07		
End of therapy	9.83	6.01	12.86	9.11	77.09***	1.31
6-month follow-up	10.07	6.81	13.57	10.49	66.45***	1.58
Hospital Anxiety and Depression Scale anxiety scale						
Baseline	14.21	3.04	13.68	2.68		
End of therapy	7.76	3.92	8.86	4.09	133.88***	2.79
6-month follow-up	8.03	4.45	9.29	4.80	93.56***	2.65
Beck Depression Inventory						
Baseline	19.21	6.79	17.82	6.53		
End of therapy	7.59	5.75	11.29	7.85	87.50***	6.86**
6-month follow-up	8.66	6.34	11.21	8.70	82.87***	4.38*
Inventory of Interpersonal Problems, circumplex version						
Baseline	13.78	4.04	13.57	3.36		
End of therapy	11.97	4.04	12.07	4.02	24.91***	0.20
6-month follow-up	11.63	4.32	11.67	4.34	23.01***	0.08

\*p=0.04. \*\*p=0.01. \*\*\*p<0.01.

#### Question 2.4

**From Table 2, which of the outcome measures listed below showed significant time-by-treatment-group interactions on 6-month follow-up.**

**Select THREE correct answers from the options below: (3 marks)**

**(Please select ONLY three options: more than three answers will incur a mark of zero)**

<b>A.</b>	Beck Anxiety Inventory
<b>B.</b>	Beck Depression Inventory
<b>C.</b>	Hamilton Anxiety Rating Scale
<b>D.</b>	Hospital Anxiety and Depression Scale, anxiety scale
<b>E.</b>	Inventory of Interpersonal Problems, circumplex version
<b>F.</b>	Penn State Worry Questionnaire
<b>G.</b>	State-Trait-Anxiety Inventory trait measure

**Correct: B, F and G**



Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.

TABLE 3. Post Hoc Comparisons and Effect Size Estimates for Patients With Generalized Anxiety Disorder Who Received Cognitive-Behavioral Therapy or Short-Term Psychodynamic Psychotherapy					
Variable and Time Point	Within-Group Comparison With Baseline, by Paired t Test				Between-Group Effect Size (Cohen's d)
	Cognitive-Behavioral Therapy (N=29)		Short-Term Psychodynamic Psychotherapy (N=28)		
	t (df=28)	Effect Size (Cohen's d) <sup>a</sup>	t (df=27)	Effect Size (Cohen's d) <sup>a</sup>	
Hamilton Anxiety Rating Scale					
End of therapy	8.99*	2.62	9.15*	2.14	0.48
6-month follow-up	9.23*	2.67	8.43*	2.02	0.65
Penn State Worry Questionnaire					
End of therapy	7.32*	1.78	4.23*	0.80	0.98
6-month follow-up	7.99*	1.72	4.22*	0.68	1.04
State-Trait-Anxiety Inventory, trait anxiety					
End of therapy	7.85*	1.84	5.59*	1.02	0.82
6-month follow-up	8.00*	1.87	4.66*	0.94	0.93
Beck Anxiety Inventory					
End of therapy	6.35*	1.41	6.20*	1.08	0.33
6-month follow-up	6.12*	1.39	5.44*	1.02	0.37
Hospital Anxiety and Depression Scale, anxiety scale					
End of therapy	9.27*	2.26	7.09*	1.69	0.57
6-month follow-up	7.53*	2.16	6.13*	1.53	0.63
Beck Depression Inventory					
End of therapy	7.65*	1.74	5.47*	0.98	0.76
6-month follow-up	7.03*	1.58	5.89*	0.99	0.59
Inventory of Interpersonal Problems, circumplex version					
End of therapy	3.59*	0.49	3.51*	0.41	0.08
6-month follow-up	3.51*	0.58	3.28*	0.51	0.07

<sup>a</sup> Calculated as the pretreatment mean minus the posttreatment mean, divided by the pooled standard deviation.  
\*p<0.01.

## Question 2.5

Regarding Table 3, select FOUR correct statements from the list below: (4 marks)

(Please select ONLY four options: more than four answers will incur a mark of zero)

A.	The within-group effect sizes of CBT from all seven measures were large.
B.	The within-group effect sizes of psychodynamic psychotherapy from all seven measures were large.
C.	The within-group effect size of short-term psychodynamic psychotherapy from the Inventory of Personal Problems score at the end of therapy was large
D.	The within-group effect size of short-term psychodynamic psychotherapy from the Inventory of Personal Problems score at 6-month follow-up was not large
E.	Across all seven measures, not all of the within-group effect sizes of CBT were large.
F.	Across all seven measures, not all of the within-group effect sizes of psychodynamic psychotherapy were large.
G.	The within-group effect size of short-term psychodynamic psychotherapy from the Beck Depression Inventory score at 6-month follow-up was not large
H.	The within-group effect size of short-term psychodynamic psychotherapy from the Beck Depression Inventory score at the end of therapy was large

Correct: D, E, F, H

**Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.**

**[Excerpt from Results]**

*The results of the post hoc two-tailed  $t$  tests indicated that CBT yielded significantly larger treatment effects for the Penn State Worry Questionnaire ( $t=3.19$ ,  $df=52$ ,  $p<0.01$ ), State-Trait Anxiety Inventory trait measure ( $t=2.78$ ,  $df=52$ ,  $p<0.01$ ), and BDI ( $t=2.63$ ,  $df=52$ ,  $p=0.01$ ) after treatment.*

**Question 2.6**

**Select FOUR correct statements from the list below: (4 marks)**

**(Please select ONLY four options: more than four answers will incur a mark of zero)**

<b>A.</b>	The paired $t$ -test is a statistical test that compares the means of two groups of observations.
<b>B.</b>	The paired $t$ -test has lower statistical power when the difference between groups is small relative to the variation within groups.
<b>C.</b>	The paired $t$ -test is used when there is one measurement variable and two nominal variables.
<b>D.</b>	The two-tailed $t$ -test is a test of significance.
<b>E.</b>	When the research hypothesis does not state the direction of the difference or relationship, the one-tailed $t$ -test is appropriate.
<b>F.</b>	The equivalent parametric test to the paired $t$ -test is the Wilcoxon test.
<b>G.</b>	Non-parametric tests are used where the data is normally distributed.
<b>H.</b>	Non-parametric tests are used where the distribution of data is unknown.

**Correct: A, C, D, H**

**This section is deliberately blank**

**Do not answer questions in this booklet. Use the separate answer sheet and pencil provided.**

**[Excerpt from Method]** ...Both CBT and short-term psychodynamic psychotherapy included up to 30 (50-minute) sessions and were carried out according to treatment manuals.....Implementation of the treatment manuals, including adherence to the manuals and competent delivery of the interventions, was ensured for each group of therapists by continuous group supervision, which was carried out every month by supervisors (F. Leichsenring, E.L.) who were highly experienced in CBT or psychodynamic therapy and highly familiar with the respective treatment manual. The supervision included reading and discussing the manual and talking over audiotaped cases or special treatment situations. All of the sessions were audiotaped. From each treatment included, one session was randomly selected and rated by nine independent raters who were provided with extensive information about the two treatment manuals, including their specific treatment elements. Each of the selected sessions was rated blindly by three to eight raters (including U.J., H.K., F. Leweke) with regard to the type of treatment that was applied. The raters identified 26 (89.7%) of 29 CBT sessions correctly as the form of therapy described in the CBT manual and 24 (85.7%) of 28 short-term psychodynamic psychotherapy sessions correctly as the form of therapy described in the short-term psychodynamic psychotherapy manual (overall rate of correct identification, 87.7%). A closer look at the misidentified treatment sessions showed that in these sessions, therapists of both types encouraged the patients to approach feared situations. As previously described, both approaches address feared situations, but they use different rationales. The kappa value for agreement beyond chance was 0.76, ... indicating excellent agreement beyond chance.

**Question 2.7**

**Select THREE correct statements, from the list below: (3 marks)**

**(Please select ONLY three options: more than three answers will incur a mark of zero)**

A.	Kappa coefficient statistics suppose that, when not completely certain, raters simply guess.
B.	The kappa coefficient measures test-retest reliability.
C.	Kappas are reliably comparable across different studies, procedures, or populations.
D.	Kappa statistics are not influenced by trait prevalence (distribution) or base-rates.
E.	Kappa statistics are appropriate for testing whether agreement exceeds chance levels for binary and nominal ratings.
F.	Fleiss's guideline characterizing kappas over 0.75 as excellent, 0.40 to 0.75 as fair to good, and below 0.40 as poor is entirely arbitrary.
G.	Kappa statistics are the unequivocal standard or default way to quantify agreement.

**Correct: A, E, F**

**Question 2.8**

**Select THREE correct statements about the study, from the list below: (3 marks)**

**(Please select ONLY three options: more than three answers will incur a mark of zero)**

A.	The results of the study are important, as Generalised Anxiety Disorder is a high-prevalence condition in the general population.
B.	It is difficult to generalise from this study to normal clinical settings, due to the need for very experienced therapists prepared to work from a treatment manual.
C.	The study's methods would be difficult to implement in normal clinical settings, due to the need for regular group supervision by very experienced supervisors.
D.	The study's inability to show significant differences in outcome between treatments in regard to the primary outcome is likely to be a Type I error.
E.	It is difficult to generalise from this study, as Generalised Anxiety Disorder is a condition which commonly presents in Primary Care where these therapy resources are not available.
F.	The results have limited utility due to the exclusion of subjects with some Axis II diagnoses.

**Correct: B, C, E**