

PUNJAB PUBLIC SERVICE COMMISSION

Objective Type Test (January-2023) for Recruitment to the post of Scientific Officer and Scientific Assistant (Polygraph) in the Department of Home Affairs & Justice.

READ INSTRUCTIONS BEFORE FILLING ANY DETAILS OR ATTEMPTING TO ANSWER THE QUESTIONS.

Total Questions: 120
Time Allowed: 2 Hours

Candidate's Name _____

Father's Name _____

Date of Birth

--	--

--	--

--	--	--	--

DD MM YYYY

OMR Response Sheet No. _____

Roll No. _____

Candidate's Signature (Please sign in the box)

--

Question Booklet Set
A
Booklet Series No.

INSTRUCTIONS

1. The candidate shall NOT open this booklet till the time told to do so by the Invigilation Staff. However, in the meantime, the candidate can read these instructions carefully and subsequently fill the appropriate columns given above in CAPITAL letters. The candidate may also fill the relevant boxes out of 1 to 9 of the Optical Mark Reader (OMR) response sheet, supplied separately.
2. Use only blue or black ball point pen to fill the relevant columns on this page as well as in OMR sheet. Use of Ink pen or any other pen is not allowed.
3. The candidate shall be liable for any adverse effect if the information given above is wrong or illegible or incomplete.
4. Each candidate is required to attempt 120 questions in 120 minutes, except for orthopedically/visually impaired candidates, who would be given 40 extra minutes, for marking correct responses on the OMR sheet.
5. The question paper booklet has 25 pages.
6. The candidates, when allowed to open the question paper booklet, must first check the entire booklet to confirm that the booklet has complete number of pages, the pages printed correctly and there are no blank pages. In case there is any such error in the question paper booklet then the candidate should IMMEDIATELY bring this fact to the notice of the Invigilation Staff and obtain a new booklet of the same series as given earlier.
7. The serial number of the new Question booklet if issued for some reason should be entered in the relevant column of the OMR. The Invigilation Staff must make necessary corrections in their record regarding the change in the serial no. of Question booklet.
8. The paper consists of total 480 Marks. Each question shall carry 4 marks. There are four options for each question and the candidate has to mark the MOST APPROPRIATE answer on the OMR response sheet.
9. There is negative marking (1 mark for each question) for questions wrongly answered by the candidate.
10. Use of Electronic/Manual Calculator is prohibited.
11. The candidate MUST READ INSTRUCTIONS BEHIND THE OMR SHEET before answering the questions and check that two carbon copies attached to the OMR sheet are intact.

1. The structure of the Central Nervous System includes:

- a) Cranial Nerves, Forebrain, Midbrain and Hindbrain
- b) Forebrain, Midbrain, Hindbrain and Spinal Cord
- c) Spinal Nerves, Forebrain, Midbrain and Hindbrain
- d) Spinal Cord, Cranial Nerves, Forebrain, Midbrain

2. Match List –I with List II and find which of the given options is the correct match:

List-I	List-II
1. <i>Cybercrime</i>	a) is defined as “sending or posting harmful or cruel text or images using the Internet or other digital communication devices”
2. <i>Cyberstalking</i>	b) refers to any illegal act that involves a computer system. It is therefore also called computer crime and sometimes, when computers are hacked, computer intrusion.
3. <i>Cyber harassment</i>	c) pertains to threatening or harassing email messages, instant messages, blog entries, or websites dedicated solely to tormenting an individual.
4. <i>Cyberbullying</i>	d) is using the Internet or other forms of electronic communications to threaten or engage in unwanted advances toward another.

- a) 1-b; 2-d; 3-c; 4-a
- b) 1-b; 2-a; 3-c; 4-d
- c) 1-d; 2-a; 3-b; 4-c
- d) 1-d; 2-b; 3-c; 4-a

3. What is correct formula for calculating the IQ of an individual?

- a) $\frac{CA}{MA} \times 100$
- b) $\frac{MA}{CA} \times 100$
- c) $\frac{MA}{SA} \times 100$
- d) $\frac{SA}{MA} \times 100$

4. The word forensic originated from the Latin word *forensis*, which means _____ and was used to describe a location in ancient Rome.
 - a) From the evidence
 - b) For the justice
 - c) For the peace
 - d) Of the forum

5. Which is the most specific test (designed by Hare) for assessing Criminal Psychopathy?
 - a) Disruptive Behaviour Scale
 - b) Millon Clinical Multiaxial Inventory (MCMI)
 - c) Minnesota Multiphasic Personality Inventory (MMPI)
 - d) Psychopathy Checklist (PCL-R)

6. Witnesses to 'real' crime events may experience a higher level of _____, particularly if the witnessed incident involves weapons or violence and the witnesses feel threatened.
 - a) Panic
 - b) Emotional arousal
 - c) Emotional Numbness
 - d) Frozen state

7. The Rorschach Inkblot Test consists of 10 bilaterally symmetrical inkblots printed on separate cards. The 5 achromatic and 5 chromatic inkblots allow an individual to provide responses on the basis of his/ her *percept*. This process facilitates the process known as _____.
 - a) Rationalization
 - b) Apperception
 - c) Projection
 - d) Form Interpretation

8. Match List –I with List II and find which of the given options is the correct match:

List-I

- 1) *Mesolimbic System*
- 2) *Basal Ganglia*
- 3) *Fusiform gyrus*
- 4) *Circle of Willis*

List-II

- a. Facial recognition
- b. Supplies blood
- c. Dopaminergic pathway
- d. Integrating feelings and movements

- a) 1-a, 2-b, 3-c, 4-d
- b) 1-c, 2-d, 3-a, 4-b
- c) 1-d, 2-a, 3-b, 4-c
- d) 1-c, 2-b, 3-d, 4-a

9. One of the most commonly used Personality tests in generating a profile for an individual in the clinical/ forensic setting is the MMPI. Three validity scales on the MMPI are
- a) The Likeability scale, the Infrequency scale & Symptoms scale
 - b) The Lie scale, the Frequency scale & Correction scale
 - c) The Symptom Scale, The Lie scale & Correction Scale
 - d) The Likeability scale, the Frequency Scale & Lie scale
10. Who gave the 'economical' model of humans possessing free will which allows them to evaluate the costs and benefits of their actions prior to engaging in them?
- a) Adolphe Quetelet
 - b) Cesare Beccaria
 - c) Cesare Lombroso
 - d) Mathey
11. The offending Traumatic Brain Injury link is especially strong if the brain dysfunction is located in the _____ lobe.
- a) Parietal
 - b) Occipital
 - c) Temporal
 - d) Frontal
12. _____ is the term used in genetics for the degree to which related pairs of subjects both show a particular behavior or condition.
- a) Epidemiology
 - b) Concordance
 - c) Prevalence
 - d) Twin studies
13. One source of variance during test construction is _____, term that refers to variation among items within a test as well as to variation among items between tests.
- a) Source of variance
 - b) Item Sampling
 - c) Deviation in the test
 - d) Inter-item consistency
14. Experiments in which part of the brain is damaged and the animal's behavior is subsequently observed are called _____
- a) stereotaxic surgery
 - b) Lesion studies
 - c) Sham Lesion
 - d) Perfusion

15. _____ is a computer assisted X-ray procedure that can be used to visualize the brain and other internal structures of the living body.
- Magnetic resonance imaging (MRI)
 - Positron emission tomography (PET)
 - Computed tomography (CT)
 - Diffusion tensor imaging (DTI)
16. Which of the following manual/s is used by Mental Health professionals to diagnose mental conditions for the purpose of treatment?
- Diagnostic and Statistical Manual of Mental Disorders (DSM 5)
 - American Psychiatric Association (APA)
 - International Classification of Disease (ICD 11)
 - World Health Organization (WHO)
- Only (i)
 - Only (i) and (iii)
 - Only (i), (ii) and (iii)
 - All of the above
17. _____ refers to the tendency to return to offending, criminal psychopaths commit crimes again and again, regardless of the methods used to stop or rehabilitate them.
- Callousness
 - Emotional disturbances
 - Recidivism
 - Reincarceration

18. Match List –I with List II and find which of the given options is the correct match:

- List-I**
- Occipital Lobe*
 - Temporal Lobe*
 - Frontal Lobe*
 - Parietal Lobe*

- List-II**
- Executive Functions
 - Somatosensory Functions
 - Visual functions
 - Auditory Functions

- 1-c, 2-d, 3-a, 4-b
- 1-a, 2-d, 3-c, 4-b
- 1-d, 2-a, 3-b, 4-c
- 1-c, 2-b, 3-d, 4-a

19. Which sub-cortical structure of the brain is considered as the human emotion regulation system?

- a) Cingulate gyrus
- b) Mammillary body
- c) Hippocampus
- d) Limbic system

20. In _____, an attacker gains unauthorized access to a computer or a network by making it appear that a malicious message has come from the IP address of a trusted machine.

- a) Hijacked Session Attack
- b) IP Phishing
- c) IP spoofing
- d) IP vandalism

21. A diagnosis of Intellectual Impairment (formerly known as Mental Retardation) is determined largely by an IQ

- a) $IQ < 80$
- b) $IQ < 70$
- c) $IQ < 90$
- d) $IQ < 85$

22. Which brain waves are regular, 8 to 12 per-second, high-amplitude waves that are associated with relaxed wakefulness?

- a) Alpha
- b) Beta
- c) Delta
- d) Gamma

23. Under Section 125 of CrPC, what are the grounds for claiming maintenance for women?

- (i) Divorced by her husband
 - (ii) She took divorced from her husband
 - (iii) She has remarried
 - (iv) She is not able to support herself
 - (v) Both Husband and wife are living separately by mutual consent
-
- a) Only (i), (ii) & (v)
 - b) Only (i), (ii), (iii) & (v)
 - c) Only (i), (ii) & (iv)
 - d) All of the above

24. Cybercriminals are known to employ the technique of _____ toward their behaviour which include such cognitive approaches as dehumanizing victims and minimizing the extent of the harm they do.
- a) Denial
 - b) Justification
 - c) Neutralization
 - d) Compensation
25. According to Section 26 of the CrPC, any offence mentioned under the Indian Penal Code may be tried by
- a) High court or Supreme Court or Lok Adalat
 - b) High Courts or Courts of Session or Any other Court specified in the First Schedule of Code of Criminal Procedure
 - c) High Court or Tribunal Court or Any other Court specified in the First Schedule of Code of Criminal Procedure
 - d) High Court or Lok Adalat or Any other Court specified in the First Schedule of Code of Criminal Procedure
26. _____, often referred to as PUPS (potentially unwanted programs), as they are often housed with commercial utilities are designed for worthwhile goals like parental control, but which are diverted from their original purpose to commit criminal acts.
- a) Polymorphic code
 - b) Trojans and other malware
 - c) Redirectors
 - d) Pharming
27. The abbreviation SIM often found in mobile phones, stands for:
- a) Subsequent Individual Model
 - b) Solitary Identity Monitor
 - c) Subscribed Individual Method
 - d) Subscriber Identity Module
28. Which of the following is an advanced form of phishing, which redirects the connection between an IP address (i.e., consumer seeking legitimate site) and its target serve (i.e., legitimate site)?
- a) Pharming
 - b) Redirectors
 - c) Spoofing
 - d) Denial of Service attack

29. Two clinical scales from the MMPI-2 have been used singly and in combination to assess characteristics of psychopathy. Which of the following are the two scales for psychopathy?
- a) Variable Response Inconsistency Scale (VRIN) and True Response Inconsistency Scale (TRIN)
 - b) Psychopathic Deviate (Pd) scale and the Lie scale
 - c) Psychopathic Deviate (Pd) scale and the Hypomania (Ma) scale
 - d) True Response Inconsistency Scale (TRIN) and the Lie scale
30. In a CBI-led operation against cyber enabled financial crimes, two call centres through which financial frauds were committed in the U.S. were detected in Pune and Ahmedabad after a rigorous search of 105 places throughout the country. What was the name of this Operation?
- a) Chakra
 - b) Star
 - c) Chanakya
 - d) V-Star
31. A _____ results from errors in the sampling procedures, and it cannot be reduced or eliminated by increasing the sample size. At best the causes responsible for these errors can be detected and corrected.
- a) Researcher's bias
 - b) Randomization Error
 - c) Systematic bias
 - d) Natural bias
32. MMSE stands for
- a) Multi memory state examination
 - b) Multiple mental strata evaluation
 - c) Mini mental state examination
 - d) Meta mental structural evaluation
33. In Schizophrenia psychotic symptoms such as hallucinations, delusions, disorganised speech and grossly disorganised or catatonic behaviours are known as:
- a) Positive symptoms
 - b) Mediating symptoms
 - c) Negative symptoms
 - d) Catastrophic symptoms
34. What is M'Naghten Law?
- a) Plea for Insanity
 - b) Law for Murder
 - c) Plea for Not guilty
 - d) None of the above

35. In which year APA formally approved forensic psychology as an area of specialization?
- a) 2000
 - b) 2001
 - c) 2002
 - d) 2003
36. According to Article 20(3) of the Indian Constitution
- a) No person shall be prosecuted and punished for the same offence more than once
 - b) Penalty greater than that which might have been inflicted under the law in force at the time of the commission of the offence
 - c) No person shall be convicted of any offence except for violation of a law in force at the time
 - d) No person accused of an offence shall be compelled to be a witness against himself
37. Which of the following is a specific brain response that is emitted by the brain of a perpetrator who has the details of a crime stored in his brain?
- a) P300-memrain
 - b) P3000-MERMER
 - c) P300-MERMER
 - d) P30-MERMER
38. Without which document polygraph cannot be conducted?
- a) Consent of the subject(s) recorded before the Judicial Magistrate/Court.
 - b) Statements of the subject(s)
 - c) Post-mortem/other forensic reports
 - d) Crime Scene Sketch and photographs
39. Which of the following Supreme Court judgement is majorly referred for polygraph?
- a) Smt suman & Otrs Vs State of Karnataka
 - b) Smt. somia & Otrs Vs State of Karnataka
 - c) Smt. Selvi & Otrs Vs State of Kerala
 - d) Smt. Selvi & Otrs Vs State of Karnataka
40. In polygraph what is POT?
- a) Peak of abnormality Test
 - b) Peak of provision Test
 - c) Peak of Tension Test
 - d) Peak of memory Test
41. In The Indian evidence Act, forensic psychologists come under which of the following Section?
- a) Section 47
 - b) Section 46
 - c) Section 45
 - d) Section 45 A

42. Who is considered as the father of Modern Criminology?
- a) Cesare Lombroso
 - b) Sigmund Freud
 - c) John B. Watson
 - d) B. F. Skinner
43. Human trafficking is an example of
- a) White collar crime
 - b) Organized crime
 - c) Economic offences
 - d) Hate crime
44. What is young male syndrome?
- a) Higher risk taking attitude
 - b) Low self esteem
 - c) Personality disorder
 - d) None of the above
45. In Code of Criminal Procedure, 1973, confessions are only valid if provided in front of
- a) Magistrate
 - b) Police
 - c) Lawyer
 - d) Witness
46. Intellectual property (IP) crime is most generally known as
- a) brute force attack
 - b) social engineering
 - c) counterfeiting and piracy
 - d) password cracking
47. In criminal law, emphasis is more on
- a) punishment and rehabilitation
 - b) training and rehabilitation
 - c) dispute resolution and victim compensation
 - d) residence and rehabilitation
48. Wada technique involves injection of sodium amytal into _____ artery which briefly anesthetizes the ipsilateral hemisphere.
- a) brachial
 - b) pulmonary
 - c) carotid
 - d) superior thyroid

49. The frequency of theta wave in electroencephalography (EEG) is between _____ Hz
- a) 0.5-4
 - b) 4-7
 - c) 8-13
 - d) 13-40
50. Which of the following brain scanning methods map cerebral blood flow or volume as well as their changes and oxygenation?
- a) Computed Tomography (CT)
 - b) Functional Magnetic Resonance Imaging (fMRI)
 - c) Magnetic Resonance Imaging (MRI)
 - d) Positron Emission Tomography
51. Luteinizing hormone releasing hormone (LHRH) reduces the circulation of testosterone by _____ which plays significant role in sexual behaviour
- a) interfering with the androgen receptor in the brain and blocking the uptake of the testosterone
 - b) activating the enzymes in the liver that increase the clearance of testosterone.
 - c) exhausting the hypothalamic pituitary axis and lowering the production of testosterone
 - d) all of the above
52. Wernicke's area involved in speech comprehension is located in _____
- a) Parietal lobe
 - b) Prefrontal cortex
 - c) Fronto-temporal lobe
 - d) Temporal lobe
53. Tendency to perceive object as whole entities, despite the facts that some parts may be missing or obstructed from view is due to _____
- a) Law of closure
 - b) Law of Proximity
 - c) Law of similarity
 - d) Law of continuation
54. According to the principles of _____ a particular behaviour (e.g. lying) is more likely to be repeated when it has been favourably productive in the past (e.g. avoiding punishment).
- a) Classical conditioning
 - b) Operant conditioning
 - c) Observational learning
 - d) Sign learning

55. The acquisition of new information, concepts or forms of behaviour through exposure to others and the consequences they experience is called _____
- a) Insightful learning
 - b) Sign learning
 - c) Observational learning
 - d) Experiential learning
56. Impairments in motivation can be seen in patients suffering from _____ due to damage to the networks controlling the sympathetic nervous system
- a) autonomic hyperarousal
 - b) autonomic hypoarousal
 - c) reactivity to stress
 - d) none of the above
57. Select from the alternatives, the Abraham Maslow's need hierarchy which is provided in right order _____
- a) Safety, Physiological, Esteem, Belongingness, Self-actualization
 - b) Esteem, Belongingness, Safety, Physiological, Self-actualization
 - c) Physiological, Safety, Belongingness, Esteem, Self-actualization
 - d) Safety, Esteem, Physiological, Belongingness, Self-actualization
58. A criminal not only remembers the event (crime) but also some aspects of the crime scene. This is best described as his _____ memory.
- a) iconic
 - b) echoic
 - c) episodic
 - d) semantic
59. Inability to store new long-term memories is called
- a) anterograde amnesia
 - b) retrograde amnesia
 - c) hypermnesia
 - d) forgetting
60. Which of the following is not a factor in the Structure-of-Intelligence Model (Guilford, 1967)?
- a) Operations
 - b) Response latency
 - c) Contents
 - d) Products

61. _____ suggested that measures of reaction time is strongly related to IQ score, which supported the assumption that speed of information processing is the essential basis of 'g' factor.
- a) Hans Eysenck
 - b) Francis Galton
 - c) Charles Spearman
 - d) Raymond Cattell
62. Which of the following is the final stage (characteristic) in Kohlberg's theory of Moral development?
- a) Personal morality based on abstract principles
 - b) Adheres to social contract when it is valid
 - c) Nice behaviour in exchange of future favour
 - d) Obedience to authority
63. _____ involves comparison of at least one naturally occurring independent variable to estimate its causal relationship with at least one dependent variable without making random allocation to different conditions of the independent variable
- a) Experimental study
 - b) Quasi-experimental study
 - c) Cohort study
 - d) Randomized Control Trial
64. _____ requires the study of test scores in relation to not only to variables that the test is intended to assess, but also in relation to the study of those variables that have no relationship to the domain underlying the instrument.
- a) Criterion-based validity
 - b) Face validity
 - c) Construct validity
 - d) None of the above
65. Which of the following is not a standard neuropsychological test?
- a) Category Test
 - b) Embedded Figures Test
 - c) Trail Making Test
 - d) Finger Oscillation Test
66. *Actus reus* refers to _____
- a) Finding someone guilty due to wrongful purpose in a crime
 - b) Finding someone guilty due to wrongful deed in a crime
 - c) Finding someone guilty due to presence in the crime scene
 - d) Finding someone guilty due to wrongful confession in a crime

67. Who developed a brain finger printing, a neuropsychological method of interrogation in India called Brain Electrical Oscillation Signature Profiling?
- a) R. C. Tripathy
 - b) Malavika Kapur
 - c) C. R. Mukundan
 - d) S. L. Vaya
68. _____ occurs when Internet use becomes the primary activity in an user's life and dominates thinking, feelings and behaviour
- a) Tolerance
 - b) Salience
 - c) Contextualization
 - d) Task-cued behaviour
69. A growing fraction of human thoughts, behaviours, and preferences leave digital traces that can be easily recorded, stored and analyzed. This information is called _____
- a) Digital blueprints
 - b) Digital footprints
 - c) Usage logs
 - d) Language data
70. Which theory of hypnosis suggests that hypnotized individuals enter an altered state of consciousness in which consciousness is divided?
- a) Neo-dissociation
 - b) Socio-cognitive
 - c) Habituation
 - d) Stimulus Deprivation
71. People often revise their memories, saying that how an event turned out was what they expected all along. This is called _____
- a) hindsight bias
 - b) foresight bias
 - c) expectancy bias
 - d) consolidation of memory
72. Identify the lie detection test which is based on examination of voice under stress
- a) Voice Lab Functional Test
 - b) Layered Voice Analysis
 - c) Laryngeal Video Myography
 - d) None of the above
73. Which of the following is considered as a method of brain fingerprinting?
- a) Functional Magnetic Resonance Imaging
 - b) Positron Emission Tomography
 - c) CQT Polygraph Testing
 - d) ERP-based GKT procedure

74. Navaco (1975) developed an anger management programme which was based on _____
- a) Suppression of anger
 - b) Catharsis
 - c) Cognitive-behavioural approach
 - d) Information-processing approach
75. Which of the following forms of violence occurs when the injury of an individual is secondary to the acquisition of some other goals?
- a) Reactive
 - b) Instrumental
 - c) Observational
 - d) Hostile attribution
76. The Guilty Knowledge Test (GNT) is also called _____ Test for criminal profiling.
- a) Projective
 - b) Psychophysiological
 - c) Concealed Information
 - d) Reflectivity Confirmation
77. Which of the following characteristic defines a serial killer?
- a) Multiple victims over a variety of locations and has a cooling off period between kills
 - b) Multiple victims over a variety of locations all occurring within a single period of time.
 - c) Multiple victims intentionally killed in a single location and single period of time
 - d) None of the above
78. Which of the following is not a drug-related crime?
- a) Possession of drugs
 - b) Manufacturing of drugs
 - c) Consumptions of drugs
 - d) Distribution of drugs
79. Which of the following statement about Admissibility of Forensic Report in Court (Section 293 Cr.PC) is incorrect?
- a) The Public Analyst's reports of qualitative nature, is acceptable as evidence in the court of law
 - b) It is not obligatory upon a Court to use the report of the experts mentioned in Section 293 as evidence in every case
 - c) A Court is not bound to accept and act on a report as conclusive evidence of its contents
 - d) The Court just gives its authority to the conclusion of the Public Analyst and this cannot be the position in law

80. A false positive in a psychological test for lie detection refers to a result that _____
- a) incorrectly indicate that a particular condition or attribute is absent
 - b) incorrectly indicate that a particular condition or attribute is present
 - c) correctly indicate that a particular condition or attribute is absent
 - d) correctly indicate that a particular condition or attribute is present
81. An instrument was developed for measuring public attitude toward reoffenders. The following categories of responses were expected from the respondents: strongly agree (SA), agree (A), undecided (U), and strongly disagree (SD). What kind of scaling procedure was used?
- a) Likert-type scale
 - b) Thurstone-type scale
 - c) Guttman-type scale
 - d) None of the above
82. In psychological assessment, _____ refers to the probability that a person without a particular attribute will be correctly identified as not having that attribute
- a) specificity
 - b) sensitivity
 - c) probability sampling
 - d) item discrimination
83. In forensic investigation VIPER is used as a _____
- a) technique of interrogation of the suspect
 - b) method of eye-witness testimony
 - c) lie detection technique
 - d) security surveillance system
84. _____ variables are those, which are not under control of the criminal justice system, and can be manipulated in research (e.g. exposure duration, age or race of the witness, presence of a weapon) and cannot be controlled in actual witnessed incident.
- a) estimator
 - b) system
 - c) predictor
 - d) antecedent
85. Which of the following is not a component or major resource from which mental state of the person at the time of murder can be assessed through?
- a) interview with the accused
 - b) inventory used for forensic psychological assessment
 - c) examination of the murder weapon
 - d) third party information

86. Which of the following characteristics is not considered as the prototype of insanity but may systematically influence jurors' case-relevant attitudes?
- a) severe mental disability
 - b) moral insanity
 - c) vulnerable mental state
 - d) bizarreness crime
87. An abbreviation NGRI used for an individual who at the time of the crime was found to be so mentally disordered that he/she should not be held responsible for the act. The abbreviation stands for
- a) Non Guilty For Reason of Insanity
 - b) Not Guilty by Reasoning Ability
 - c) Not Guilty by Reason of Insanity
 - d) Not Guilty under Reason of Insanity
88. _____, a student of Wilhelm Wundt and a professor at Harvard University, is generally credited with founding the field of forensic psychology.
- a) John H. Wigmore
 - b) Hugo Münsterberg
 - c) Elizabeth Loftus
 - d) William Marston
89. The WAIS-IV intelligence test includes the subtests which are sorted into four indexes. Which of the following indexes are included?
- a) Performance test, verbal comprehension, perceptual reasoning, and processing speed
 - b) Digit span, Digit symbol-coding, Working memory and Verbal Comprehension
 - c) Verbal comprehension, perceptual reasoning, working memory and processing speed
 - d) Block Design, Digit span, Working memory and verbal comprehension
90. Victims of child abuse often completely forget about the memories related to the abuse making those memories completely inaccessible to the conscious mind. What is this defense mechanism called?
- a) Repression
 - b) Suppression
 - c) Reaction Formation
 - d) Projection
91. The device that detects breathing patterns is called
- a) Sphygmomanometer
 - b) Electrodermal meter
 - c) Manometer
 - d) Pneumograph

92. A line disappears at an angle behind a solid figure, reappearing at the other side at what seems to be an incorrect position. This is called _____ illusion

- a) Ponzo
- b) Poggendorf
- c) Muler-Lyer
- d) Horizontal-vertical

93. The _____ was proposed by Easterbrook (1959) to explain why a witness may focus on the weapon rather than other details. The hypothesis suggests that when emotional arousal increases, attentional capacity decreases. With limited attentional capacity, central details are more likely to be encoded than peripheral details.

- a) Threat-focused hypothesis
- b) Fear-arousal hypothesis
- c) Attentional-capacity hypothesis
- d) Cue-utilization hypothesis

94. The NHRC has issued guidelines regarding administration of a Polygraph test to suspects. Which of the following propositions are true as directed by the guidelines?

- (i) The test should be administered with the consent of the subject
 - (ii) The examiner can overrule the consent of the subject on the orders of the court
 - (iii) The subject who consents to the test, should be informed of the legal implications regarding the test
 - (iv) The judge considers the facts such as the length of detention and the protocol of interrogation
 - (v) The words spoken during a polygraph test can be accounted as confessions
- a) Only (i), (iii) & (iv) are true
 - b) Only (i), (ii) & (iv) are true
 - c) Only (i), (iii), (iv) & (v) are true
 - d) All of the above are true

95. _____ is a colloquialism for misrepresenting scientific evidence through selective testing, selective reporting, biased interpretation, overstatement of the significance of test results, the ignoring or withholding of results inconsistent with a biased viewpoint, inappropriate collection and testing of evidence, and fabrication of data.

- a) Evidence Shaping
- b) Fraud
- c) Intellectual dishonesty
- d) Poor credibility

96. In any Experimental design, any independent variable is called a/an _____

- a) dimension
- b) level
- c) factor
- d) element

97. Which of the following statements about Narco-analysis given below is incorrect?

- a) Administration of Narco-analysis tests against the will of the accused is violative of Article 20 (3) of the Constitution.
- b) Narco-analysis should be used along with other methods of investigation and questioning the suspects.
- c) During narco-analysis, the accused fails to exercise conscious control over his/her the responses.
- d) Any information or material that is subsequently discovered with the help of voluntary administered test results (e.g. narcoanalysis) cannot be admitted, in accordance with Section 27 of the Evidence Act.

98. The Brain Electrical Oscillation Signature (BEOS) technique requires _____ trial analysis using pre-probe segment as the baseline for analysis of the response

- a) Single
- b) Double
- c) Triple
- d) Quadruple

99. Which of the following is not the role of a polygraph examiner?

- a) Consulting the senior attorney to determine the questions to be asked to the accused
- b) Hooking the witnesses and suspects up to the polygraph, and asking them questions.
- c) Compare the findings with psychological test
- d) Create a written report to deliver to judges and attorneys based on the results of the exam.

100. Which of the following facts about Modified General Question Technique (MGQT) is not correct?

- a) It is a modern variant of the family of Comparison Question Techniques (CQT) and the Zone Comparison Technique.
- b) This has a high correlation with many factors in Minnesota Multiphasic Personality Questionnaire (MMPI)
- c) Conforms to generally accepted valid principles for psychophysiological detection of deception (PDD) test construction
- d) Multivariate analysis found no significant difference between total and sub-total scores of the laboratory sample and those from sample of field investigation cases, using the same technique

101. Which of the following programmes are covered under the 'National Food Security Act, 2013'?

- 1. Mid-day Meal Scheme
 - 2. Integrated Child Development Scheme
 - 3. Public Distribution System
 - 4. Buffer Stock Management
- a) 2,3 & 4 only
 - b) 1,3 & 4 only
 - c) 1,2 & 3 only
 - d) 1,2,3,4

102. Consider the following statements in connection with Psychoanalytical feminists:

- (1) They do not hold biological factors as responsible for the construction of sexual difference.
- (2) They analyse both Psychological process as well as biological factors responsible for the construction of sexual difference
- (3) They explore hidden dynamics at work in personal, inter-personal and social relations and the unconscious dynamics that shape the way we think, feel and act in the world.
- (4) Freudian Psychoanalysis does not under the category of Psychoanalytical Feminism.

Which of the statements given above are correct?

- a) 1 and 2
- b) 3 and 4
- c) 2 and 3
- d) 1 and 3

103. Water hyacinth is an example of:

- a) Endangered species
- b) Endemic species
- c) Extinct species
- d) Invasive species

104. Consider the following statements regarding “National Cyber Coordination Center (NCCC)”

1. It is an operational cyber security and e-surveillance agency in India
2. It comes under the Ministry of Information and Broadcasting.
3. It comes under the Ministry of electronics and information technology (MeitY)
4. It is a multi-stakeholder agency

Which of the above statements are correct?

- a) 1 and 2
- b) 1 and 3
- c) 1,3 and 4
- d) 1,2 and 4

105. Who was the Cartographer who demarcated the borders of India and Pakistan?

- a) Radcliffe
- b) Mac Mohan
- c) Mountbatten
- d) P. Lawrence

106. Who among the following was the French general in the army of Maharaja Ranjit Singh?

- a) Jean Francois Allard
- b) Colonel John Holmes
- c) Colonel Alexander Gardner
- d) Sir John Hough

107. Who amongst the following headed the 1946 Cabinet Mission?

- a) Hugh Gaitskell
- b) Lord Pethick-Lawrence
- c) Sir John Simon
- d) None of the above

108. Consider the following statements

- 1) The Brahmaputra is the 9th largest and 15th longest river in the world.
- 2) In Arunachal Pradesh, the river Bhramputra is known as Siang/Dihang.
- 3) The river enters Arunachal Pradesh near Gelling where it is known as the Siang or Dihang.
- 4) The total length of the Siang River is 350 km till its point of confluence with the Dibang and Lohit rivers.

Which of the above statements are correct?

- | | |
|--------------------|---------------------|
| a) 1 and 2 only | b) 3 and 4 only |
| c) 1, 2 and 3 only | d) All of the above |

109. Consider the following statements regarding 80th Golden Globes Awards held recently (2023):

1. The award for Best Motion Picture-Drama was won by “The Banshees of Inisherin”
2. The award for Best Original Song, Motion Picture was won by “Naatu Naatu” from the film “RRR”.
3. The award for Best Director, Motion Picture was won by Steven Spielberg, for the film “The Fabelmans”

Which of the above statements is/are correct?

- a) 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

110. In which month of the year, Road Safety Week is observed by Ministry of Road Transport & Highways, Government of India?

- a) November
- b) December
- c) January
- d) February

111. A frog jumps out of a dried well 4.5 meters deep with slippery walls. Every time the frog jumps 30 centimetres, slides down 15 centimetres. What is the number of jumps required for the frog to come out of the well?

- a) 28
- b) 30
- c) 29
- d) 31

112. This question is based upon the information given below. Study the information carefully and then choose the correct alternative to answer the question.

Five friends A, B, C, D and E are sitting on a bench.

- (1) A is sitting next to B.
- (2) C is sitting next to D.
- (3) D is not sitting with E.
- (4) E is on the left end of the bench.
- (5) C is on second position from the right.
- (6) A is on the right side of B and to the right side of E.
- (7) A and C are sitting together.

Where is A sitting?

- a) Between B and D
- b) Between D and C
- c) Between B and C
- d) Between C and E

113. Find the missing term from amongst the four alternatives.

WZI, EHJ, XAK, _____, YBM, GJN

- a) ZCO
- b) IFL
- c) FFL
- d) FIL

114. In a class, $\frac{3}{5}$ of the students are girls and remaining are boys. If $\frac{2}{9}$ of the girls and $\frac{1}{4}$ of the boys are absent, what part of the total number of students is present?

- a) $\frac{17}{25}$
- b) $\frac{23}{30}$
- c) $\frac{18}{49}$
- d) $\frac{23}{36}$

115. A sum of money is to be distributed among 5 brothers A, B, C, D and E in the ratio of 7:17:11:13:19 respectively. How much more is the share of E than A, if the sum is Rs. 33500/-?

- a) 6000
- b) 5600
- c) 5400
- d) 6200

116. If the numerator of a fraction is increased by 150% and the denominator of the fraction is increased by 350%, the resultant fraction is $\frac{25}{51}$, what is the original fraction?

- a) $\frac{11}{17}$
- b) $\frac{11}{15}$
- c) $\frac{15}{17}$
- d) $\frac{13}{15}$

117. Two taps can fill a tank in 20 minutes and 30 minutes respectively. There is an outlet tap at exactly half level of that rectangular tank which can pump out 50 litres of water per minute. If the outlet tap is open, then it takes 24 minutes to fill an empty tank. What is the volume of the tank?

- a) 1800 litres
- b) 1500 litres
- c) 1200 litres
- d) 2400 litres

118. If the sides of an equilateral triangle are shortened by 12cms, 13cms and 14cms respectively, a right-angle triangle is formed. Find the length of the side of the equilateral triangle
- a) 18cms
 - b) 15cms
 - c) 17cms
 - d) 19cms
119. A man and his wife appear in an interview for two vacancies in the same post. The probability of husband's selection is $\frac{1}{7}$ and the probability of wife's selection is $\frac{1}{5}$. What is the probability that only one of them is selected?
- a) $\frac{4}{5}$
 - b) $\frac{2}{7}$
 - c) $\frac{8}{15}$
 - d) $\frac{4}{7}$
120. Here are some words translated from an artificial language.
- gorblflur* means floor carpet
pixngorbl means wooden floor
arthtusl means rack ceiling
- Which word could mean "wooden rack"?
- a) *gorbltusl*
 - b) *flurgorbl*
 - c) *arthflur*
 - d) *pixnarth*

SPACE FOR ROUGH WORK

PUNJAB PUBLIC SERVICE COMMISSION

Objective Type Test (January-2023) for Recruitment to the post of Scientific Officer and Scientific Assistant (Polygraph) in the Department of Home Affairs & Justice.

READ INSTRUCTIONS BEFORE FILLING ANY DETAILS OR ATTEMPTING TO ANSWER THE QUESTIONS.

Total Questions: 120
Time Allowed: 2 Hours

Candidate's Name _____

Father's Name _____

Date of Birth
DD MM YYYY

OMR Response Sheet No. _____

Roll No. _____

Candidate's Signature (Please sign in the box)

Question Booklet Set
B
Booklet Series No.

INSTRUCTIONS

1. The candidate shall NOT open this booklet till the time told to do so by the Invigilation Staff. However, in the meantime, the candidate can read these instructions carefully and subsequently fill the appropriate columns given above in CAPITAL letters. The candidate may also fill the relevant boxes out of 1 to 9 of the Optical Mark Reader (OMR) response sheet, supplied separately.
2. Use only blue or black ball point pen to fill the relevant columns on this page as well as in OMR sheet. Use of Ink pen or any other pen is not allowed.
3. The candidate shall be liable for any adverse effect if the information given above is wrong or illegible or incomplete.
4. Each candidate is required to attempt 120 questions in 120 minutes, except for orthopedically/visually impaired candidates, who would be given 40 extra minutes, for marking correct responses on the OMR sheet.
5. The question paper booklet has 25 pages.
6. The candidates, when allowed to open the question paper booklet, must first check the entire booklet to confirm that the booklet has complete number of pages, the pages printed correctly and there are no blank pages. In case there is any such error in the question paper booklet then the candidate should IMMEDIATELY bring this fact to the notice of the Invigilation Staff and obtain a new booklet of the same series as given earlier.
7. The serial number of the new Question booklet if issued for some reason should be entered in the relevant column of the OMR. The Invigilation Staff must make necessary corrections in their record regarding the change in the serial no. of Question booklet.
8. The paper consists of total 480 Marks. Each question shall carry 4 marks. There are four options for each question and the candidate has to mark the MOST APPROPRIATE answer on the OMR response sheet.
9. There is negative marking (1 mark for each question) for questions wrongly answered by the candidate.
10. Use of Electronic/Manual Calculator is prohibited.
11. The candidate MUST READ INSTRUCTIONS BEHIND THE OMR SHEET before answering the questions and check that two carbon copies attached to the OMR sheet are intact.

1. A sum of money is to be distributed among 5 brothers A, B, C, D and E in the ratio of 7:17:11:13:19 respectively. How much more is the share of E than A, if the sum is Rs. 33500/-?
 - a) 6000
 - b) 5600
 - c) 5400
 - d) 6200
2. If the numerator of a fraction is increased by 150% and the denominator of the fraction is increased by 350%, the resultant fraction is $\frac{25}{51}$, what is the original fraction?
 - a) $\frac{11}{17}$
 - b) $\frac{11}{15}$
 - c) $\frac{15}{17}$
 - d) $\frac{13}{15}$
3. Two taps can fill a tank in 20 minutes and 30 minutes respectively. There is an outlet tap at exactly half level of that rectangular tank which can pump out 50 litres of water per minute. If the outlet tap is open, then it takes 24 minutes to fill an empty tank. What is the volume of the tank?
 - a) 1800 litres
 - b) 1500 litres
 - c) 1200 litres
 - d) 2400 litres
4. If the sides of an equilateral triangle are shortened by 12cms, 13cms and 14cms respectively, a right-angle triangle is formed. Find the length of the side of the equilateral triangle
 - a) 18cms
 - b) 15cms
 - c) 17cms
 - d) 19cms
5. A man and his wife appear in an interview for two vacancies in the same post. The probability of husband's selection is $\frac{1}{7}$ and the probability of wife's selection is $\frac{1}{5}$. What is the probability that only one of them is selected?
 - a) $\frac{4}{5}$
 - b) $\frac{2}{7}$
 - c) $\frac{8}{15}$
 - d) $\frac{4}{7}$

6. Here are some words translated from an artificial language.

gorblflur means floor carpet

pixngorbl means wooden floor

arthtusl means rack ceiling

Which word could mean "wooden rack"?

- a) *gorbltusl*
 - b) *flurgorbl*
 - c) *arthflur*
 - d) *pixnarth*
7. The structure of the Central Nervous System includes:
- a) Cranial Nerves, Forebrain, Midbrain and Hindbrain
 - b) Forebrain, Midbrain, Hindbrain and Spinal Cord
 - c) Spinal Nerves, Forebrain, Midbrain and Hindbrain
 - d) Spinal Cord, Cranial Nerves, Forebrain, Midbrain
8. Match List –I with List II and find which of the given options is the correct match:

List-I	List-II
1. <i>Cybercrime</i>	a) is defined as “sending or posting harmful or cruel text or images using the Internet or other digital communication devices”
2. <i>Cyberstalking</i>	b) refers to any illegal act that involves a computer system. It is therefore also called computer crime and sometimes, when computers are hacked, computer intrusion.
3. <i>Cyber harassment</i>	c) pertains to threatening or harassing email messages, instant messages, blog entries, or websites dedicated solely to tormenting an individual.
4. <i>Cyberbullying</i>	d) is using the Internet or other forms of electronic communications to threaten or engage in unwanted advances toward another.
a) 1-b; 2-d; 3-c; 4-a	
b) 1-b; 2-a; 3-c; 4-d	
c) 1-d; 2-a; 3-b; 4-c	
d) 1-d; 2-b; 3-c; 4-a	

9. What is correct formula for calculating the IQ of an individual?

- a) $\frac{CA}{MA} \times 100$
- b) $\frac{MA}{CA} \times 100$
- c) $\frac{MA}{SA} \times 100$
- d) $\frac{SA}{MA} \times 100$

10. The word forensic originated from the Latin word forensis , which means _____ and was used to describe a location in ancient Rome.

- a) From the evidence
- b) For the justice
- c) For the peace
- d) Of the forum

11. Which is the most specific test (designed by Hare) for assessing Criminal Psychopathy?

- a) Disruptive Behaviour Scale
- b) Millon Clinical Multiaxial Inventory (MCMI)
- c) Minnesota Multiphasic Personality Inventory (MMPI)
- d) Psychopathy Checklist (PCL-R)

12. Witnesses to 'real' crime events may experience a higher level of _____, particularly if the witnessed incident involves weapons or violence and the witnesses feel threatened.

- a) Panic
- b) Emotional arousal
- c) Emotional Numbness
- d) Frozen state

13. The Rorschach Inkblot Test consists of 10 bilaterally symmetrical inkblots printed on separate cards. The 5 achromatic and 5 chromatic inkblots allow an individual to provide responses on the basis of his/ her *percept*. This process facilitates the process known as _____

- a) Rationalization
- b) Apperception
- c) Projection
- d) Form Interpretation

14. Match List –I with List II and find which of the given options is the correct match:

List-I

- 1) *Mesolimbic System*
- 2) *Basal Ganglia*
- 3) *Fusiform gyrus*
- 4) *Circle of Willis*

List-II

- a. Facial recognition
- b. Supplies blood
- c. Dopaminergic pathway
- d. Integrating feelings and movements

- a) 1-a, 2-b, 3-c, 4-d
- b) 1-c, 2-d, 3-a, 4-b
- c) 1-d, 2-a, 3-b, 4-c
- d) 1-c, 2-b, 3-d, 4-a

15. One of the most commonly used Personality tests in generating a profile for an individual in the clinical/ forensic setting is the MMPI. Three validity scales on the MMPI are

- a) The Likeability scale, the Infrequency scale & Symptoms scale
- b) The Lie scale, the Frequency scale & Correction scale
- c) The Symptom Scale, The Lie scale & Correction Scale
- d) The Likeability scale, the Frequency Scale & Lie scale

16. Who gave the 'economical' model of humans possessing free will which allows them to evaluate the costs and benefits of their actions prior to engaging in them?

- a) Adolphe Quetelet
- b) Cesare Beccaria
- c) Cesare Lombroso
- d) Mathey

17. The offending Traumatic Brain Injury link is especially strong if the brain dysfunction is located in the _____ lobe.

- a) Parietal
- b) Occipital
- c) Temporal
- d) Frontal

18. _____ is the term used in genetics for the degree to which related pairs of subjects both show a particular behavior or condition.

- a) Epidemiology
- b) Concordance
- c) Prevalence
- d) Twin studies

19. One source of variance during test construction is _____, term that refers to variation among items within a test as well as to variation among items between tests.
- a) Source of variance
 - b) Item Sampling
 - c) Deviation in the test
 - d) Inter-item consistency
20. Experiments in which part of the brain is damaged and the animal's behavior is subsequently observed are called _____
- a) stereotaxic surgery
 - b) Lesion studies
 - c) Sham Lesion
 - d) Perfusion
21. _____ is a computer assisted X-ray procedure that can be used to visualize the brain and other internal structures of the living body.
- a) Magnetic resonance imaging (MRI)
 - b) Positron emission tomography (PET)
 - c) Computed tomography (CT)
 - d) Diffusion tensor imaging (DTI)
22. Which of the following manual/s is used by Mental Health professionals to diagnose mental conditions for the purpose of treatment?
- (i) Diagnostic and Statistical Manual of Mental Disorders (DSM 5)
 - (ii) American Psychiatric Association (APA)
 - (iii) International Classification of Disease (ICD 11)
 - (iv) World Health Organization (WHO)
- a) Only (i)
 - b) Only (i) and (iii)
 - c) Only (i), (ii) and (ii)
 - d) All of the above
23. _____S refers to the tendency to return to offending, criminal psychopaths commit crimes again and again, regardless of the methods used to stop or rehabilitate them.
- a) Callousness
 - b) Emotional disturbances
 - c) Recidivism
 - d) Reincarceration

24. Match List –I with List II and find which of the given options is the correct match:

List-I

1. *Occipital Lobe*
2. *Temporal Lobe*
3. *Frontal Lobe*
4. *Parietal Lobe*

List-II

- a. Executive Functions
- b. Somatosensory Functions
- c. Visual functions
- d. Auditory Functions

- a) 1-c, 2-d, 3-a, 4-b
- b) 1-a, 2-d, 3-c, 4-b
- c) 1-d, 2-a, 3-b, 4-c
- d) 1-c, 2-b, 3-d, 4-a

25. Which sub-cortical structure of the brain is considered as the human emotion regulation system?

- a) Cingulate gyrus
- b) Mammillary body
- c) Hippocampus
- d) Limbic system

26. In _____, an attacker gains unauthorized access to a computer or a network by making it appear that a malicious message has come from the IP address of a trusted machine.

- a) Hijacked Session Attack
- b) IP Phishing
- c) IP spoofing
- d) IP vandalism

27. A diagnosis of Intellectual Impairment (formerly known as Mental Retardation) is determined largely by an IQ

- a) $IQ < 80$
- b) $IQ < 70$
- c) $IQ < 90$
- d) $IQ < 85$

28. Which brain waves are regular, 8 to 12 per-second, high-amplitude waves that are associated with relaxed wakefulness?
- a) Alpha
 - b) Beta
 - c) Delta
 - d) Gamma
29. Under Section 125 of CrPC, what are the grounds for claiming maintenance for women?
- (i) Divorced by her husband
 - (ii) She took divorced from her husband
 - (iii) She has remarried
 - (iv) She is not able to support herself
 - (v) Both Husband and wife are living separately by mutual consent
- a) Only (i), (ii) & (v)
 - b) Only (i), (ii), (iii) & (v)
 - c) Only (i), (ii) & (iv)
 - d) All of the above
30. Cybercriminals are known to employ the technique of _____ toward their behaviour which include such cognitive approaches as dehumanizing victims and minimizing the extent of the harm they do.
- a) Denial
 - b) Justification
 - c) Neutralization
 - d) Compensation
31. According to Section 26 of the CrPC, any offence mentioned under the Indian Penal Code may be tried by
- a) High court or Supreme Court or Lok Adalat
 - b) High Courts or Courts of Session or Any other Court specified in the First Schedule of Code of Criminal Procedure
 - c) High Court or Tribunal Court or Any other Court specified in the First Schedule of Code of Criminal Procedure
 - d) High Court or Lok Adalat or Any other Court specified in the First Schedule of Code of Criminal Procedure
32. _____, often referred to as PUPS (potentially unwanted programs), as they are often housed with commercial utilities are designed for worthwhile goals like parental control, but which are diverted from their original purpose to commit criminal acts.
- a) Polymorphic code
 - b) Trojans and other malware
 - c) Redirectors
 - d) Pharming

33. The abbreviation SIM often found in mobile phones, stands for:
- a) Subsequent Individual Model
 - b) Solitary Identity Monitor
 - c) Subscribed Individual Method
 - d) Subscriber Identity Module
34. Which of the following is an advanced form of phishing, which redirects the connection between an IP address (i.e., consumer seeking legitimate site) and its target serve (i.e., legitimate site)?
- a) Pharming
 - b) Redirectors
 - c) Spoofing
 - d) Denial of Service attack
35. Two clinical scales from the MMPI-2 have been used singly and in combination to assess characteristics of psychopathy. Which of the following are the two scales for psychopathy?
- a) Variable Response Inconsistency Scale (VRIN) and True Response Inconsistency Scale (TRIN)
 - b) Psychopathic Deviate (Pd) scale and the Lie scale
 - c) Psychopathic Deviate (Pd) scale and the Hypomania (Ma) scale
 - d) True Response Inconsistency Scale (TRIN) and the Lie scale
36. In a CBI-led operation against cyber enabled financial crimes, two call centres through which financial frauds were committed in the U.S. were detected in Pune and Ahmedabad after a rigorous search of 105 places throughout the country. What was the name of this Operation?
- a) Chakra
 - b) Star
 - c) Chanakya
 - d) V-Star
37. A _____ results from errors in the sampling procedures, and it cannot be reduced or eliminated by increasing the sample size. At best the causes responsible for these errors can be detected and corrected.
- a) Researcher's bias
 - b) Randomization Error
 - c) Systematic bias
 - d) Natural bias
38. MMSE stands for
- a) Multi memory state examination
 - b) Multiple mental strata evaluation
 - c) Mini mental state examination
 - d) Meta mental structural evaluation

39. In Schizophrenia psychotic symptoms such as hallucinations, delusions, disorganised speech and grossly disorganised or catatonic behaviours are known as:
- a) Positive symptoms
 - b) Mediating symptoms
 - c) Negative symptoms
 - d) Catastrophic symptoms
40. What is M'Naghten Law?
- a) Plea for Insanity
 - b) Law for Murder
 - c) Plea for Not guilty
 - d) None of the above
41. In which year APA formally approved forensic psychology as an area of specialization?
- a) 2000
 - b) 2001
 - c) 2002
 - d) 2003
42. According to Article 20(3) of the Indian Constitution
- a) No person shall be prosecuted and punished for the same offence more than once
 - b) Penalty greater than that which might have been inflicted under the law in force at the time of the commission of the offence
 - c) No person shall be convicted of any offence except for violation of a law in force at the time
 - d) No person accused of an offence shall be compelled to be a witness against himself
43. Which of the following is a specific brain response that is emitted by the brain of a perpetrator who has the details of a crime stored in his brain?
- a) P300-memrain
 - b) P3000-MERMER
 - c) P300-MERMER
 - d) P30-MERMER
44. Without which document polygraph cannot be conducted?
- a) Consent of the subject(s) recorded before the Judicial Magistrate/Court.
 - b) Statements of the subject(s)
 - c) Post-mortem/other forensic reports
 - d) Crime Scene Sketch and photographs
45. Which of the following Supreme Court judgement is majorly referred for polygraph?
- a) Smt suman & Otrs Vs State of Karnataka
 - b) Smt. somia & Otrs Vs State of Karnataka
 - c) Smt. Selvi & Otrs Vs State of Kerala
 - d) Smt. Selvi & Otrs Vs State of Karnataka

46. In polygraph what is POT?
- a) Peak of abnormality Test
 - b) Peak of provision Test
 - c) Peak of Tension Test
 - d) Peak of memory Test
47. In The Indian evidence Act, forensic psychologists come under which of the following Section?
- a) Section 47
 - b) Section 46
 - c) Section 45
 - d) Section 45 A
48. Who is considered as the father of Modern Criminology?
- a) Cesare Lombroso
 - b) Sigmund Freud
 - c) John B. Watson
 - d) B. F. Skinner
49. Human trafficking is an example of
- a) White collar crime
 - b) Organized crime
 - c) Economic offences
 - d) Hate crime
50. What is young male syndrome?
- a) Higher risk taking attitude
 - b) Low self esteem
 - c) Personality disorder
 - d) None of the above
51. In Code of Criminal Procedure, 1973, confessions are only valid if provided in front of
- a) Magistrate
 - b) Police
 - c) Lawyer
 - d) Witness
52. Intellectual property (IP) crime is most generally known as
- a) brute force attack
 - b) social engineering
 - c) counterfeiting and piracy
 - d) password cracking

53. In criminal law, emphasis is more on
- a) punishment and rehabilitation
 - b) training and rehabilitation
 - c) dispute resolution and victim compensation
 - d) residence and rehabilitation
54. Wada technique involves injection of sodium amytal into _____ artery which briefly anesthetizes the ipsilateral hemisphere.
- a) brachial
 - b) pulmonary
 - c) carotid
 - d) superior thyroid
55. The frequency of theta wave in electroencephalography (EEG) is between _____ Hz
- a) 0.5-4
 - b) 4-7
 - c) 8-13
 - d) 13-40
56. Which of the following brain scanning methods map cerebral blood flow or volume as well as their changes and oxygenation?
- a) Computed Tomography (CT)
 - b) Functional Magnetic Resonance Imaging (fMRI)
 - c) Magnetic Resonance Imaging (MRI)
 - d) Positron Emission Tomography
57. Luteinizing hormone releasing hormone (LHRH) reduces the circulation of testosterone by _____ which plays significant role in sexual behaviour
- a) interfering with the androgen receptor in the brain and blocking the uptake of the testosterone
 - b) activating the enzymes in the liver that increase the clearance of testosterone.
 - c) exhausting the hypothalamic pituitary axis and lowering the production of testosterone
 - d) all of the above
58. Wernicke's area involved in speech comprehension is located in _____
- a) Parietal lobe
 - b) Prefrontal cortex
 - c) Fronto-temporal lobe
 - d) Temporal lobe

59. Tendency to perceive object as whole entities, despite the facts that some parts may be missing or obstructed from view is due to _____
- a) Law of closure
 - b) Law of Proximity
 - c) Law of similarity
 - d) Law of continuation
60. According to the principles of _____ a particular behaviour (e.g. lying) is more likely to be repeated when it has been favourably productive in the past (e.g. avoiding punishment).
- a) Classical conditioning
 - b) Operant conditioning
 - c) Observational learning
 - d) Sign learning
61. The acquisition of new information, concepts or forms of behaviour through exposure to others and the consequences they experience is called _____
- a) Insightful learning
 - b) Sign learning
 - c) Observational learning
 - d) Experiential learning
62. Impairments in motivation can be seen in patients suffering from _____ due to damage to the networks controlling the sympathetic nervous system
- a) autonomic hyperarousal
 - b) autonomic hypoarousal
 - c) reactivity to stress
 - d) none of the above
63. Select from the alternatives, the Abraham Maslow's need hierarchy which is provided in right order _____
- a) Safety, Physiological, Esteem, Belongingness, Self-actualization
 - b) Esteem, Belongingness, Safety, Physiological, Self-actualization
 - c) Physiological, Safety, Belongingness, Esteem, Self-actualization
 - d) Safety, Esteem, Physiological, Belongingness, Self-actualization
64. A criminal not only remembers the event (crime) but also some aspects of the crime scene. This is best described as his _____ memory.
- a) iconic
 - b) echoic
 - c) episodic
 - d) semantic

65. Inability to store new long-term memories is called
- a) anterograde amnesia
 - b) retrograde amnesia
 - c) hypermnesia
 - d) forgetting
66. Which of the following is not a factor in the Structure-of-Intelligence Model (Guilford, 1967)?
- a) Operations
 - b) Response latency
 - c) Contents
 - d) Products
67. _____ suggested that measures of reaction time is strongly related to IQ score, which supported the assumption that speed of information processing is the essential basis of 'g' factor.
- a) Hans Eysenck
 - b) Francis Galton
 - c) Charles Spearman
 - d) Raymond Cattell
68. Which of the following is the final stage (characteristic) in Kohlberg's theory of Moral development?
- a) Personal morality based on abstract principles
 - b) Adheres to social contract when it is valid
 - c) Nice behaviour in exchange of future favour
 - d) Obedience to authority
69. _____ involves comparison of at least one naturally occurring independent variable to estimate its causal relationship with at least one dependent variable without making random allocation to different conditions of the independent variable
- a) Experimental study
 - b) Quasi-experimental study
 - c) Cohort study
 - d) Randomized Control Trial
70. _____ requires the study of test scores in relation to not only to variables that the test is intended to assess, but also in relation to the study of those variables that have no relationship to the domain underlying the instrument.
- a) Criterion-based validity
 - b) Face validity
 - c) Construct validity
 - d) None of the above

71. Which of the following is not a standard neuropsychological test?

- a) Category Test
- b) Embedded Figures Test
- c) Trail Making Test
- d) Finger Oscillation Test

72. *Actus reus* refers to _____

- a) Finding someone guilty due to wrongful purpose in a crime
- b) Finding someone guilty due to wrongful deed in a crime
- c) Finding someone guilty due to presence in the crime scene
- d) Finding someone guilty due to wrongful confession in a crime

73. Who developed a brain finger printing, a neuropsychological method of interrogation in India called Brain Electrical Oscillation Signature Profiling?

- a) R. C. Tripathy
- b) Malavika Kapur
- c) C. R. Mukundan
- d) S. L. Vaya

74. _____ occurs when Internet use becomes the primary activity in an user's life and dominates thinking, feelings and behaviour

- a) Tolerance
- b) Salience
- c) Contextualization
- d) Task-cued behaviour

75. A growing fraction of human thoughts, behaviours, and preferences leave digital traces that can be easily recorded, stored and analyzed. This information is called _____

- a) Digital blueprints
- b) Digital footprints
- c) Usage logs
- d) Language data

76. Which theory of hypnosis suggests that hypnotized individuals enter an altered state of consciousness in which consciousness is divided?

- a) Neo-dissociation
- b) Socio-cognitive
- c) Habituation
- d) Stimulus Deprivation

77. People often revise their memories, saying that how an event turned out was what they expected all along. This is called _____
- a) hindsight bias
 - b) foresight bias
 - c) expectancy bias
 - d) consolidation of memory
78. Identify the lie detection test which is based on examination of voice under stress
- a) Voice Lab Functional Test
 - b) Layered Voice Analysis
 - c) Laryngeal Video Myography
 - d) None of the above
79. Which of the following is considered as a method of brain fingerprinting?
- a) Functional Magnetic Resonance Imaging
 - b) Positron Emission Tomography
 - c) CQT Polygraph Testing
 - d) ERP-based GKT procedure
80. Navaco (1975) developed an anger management programme which was based on ____
- a) Suppression of anger
 - b) Catharsis
 - c) Cognitive-behavioural approach
 - d) Information-processing approach
81. Which of the following forms of violence occurs when the injury of an individual is secondary to the acquisition of some other goals?
- a) Reactive
 - b) Instrumental
 - c) Observational
 - d) Hostile attribution
82. The Guilty Knowledge Test (GNT) is also called _____ Test for criminal profiling.
- a) Projective
 - b) Psychophysiological
 - c) Concealed Information
 - d) Reflectivity Confirmation
83. Which of the following characteristic defines a serial killer?
- a) Multiple victims over a variety of locations and has a cooling off period between kills
 - b) Multiple victims over a variety of locations all occurring within a single period of time.
 - c) Multiple victims intentionally killed in a single location and single period of time
 - d) None of the above

84. Which of the following is not a drug-related crime?
- a) Possession of rugs
 - b) Manufacturing of drugs
 - c) Consumptions of drugs
 - d) Distribution of drugs
85. Which of the following statement about Admissibility of Forensic Report in Court (Section 293 Cr.PC) is incorrect?
- a) The Public Analyst's reports of qualitative nature, is acceptable as evidence in the court of law
 - b) It is not obligatory upon a Court to use the report of the experts mentioned in Section 293 as evidence in every case
 - c) A Court is not bound to accept and act on a report as conclusive evidence of its contents
 - d) The Court just gives its authority to the conclusion of the Public Analyst and this cannot be the position in law
86. A false positive in a psychological test for lie detection refers to a result that _____
- a) incorrectly indicate that a particular condition or attribute is absent
 - b) incorrectly indicate that a particular condition or attribute is present
 - c) correctly indicate that a particular condition or attribute is absent
 - d) correctly indicate that a particular condition or attribute is present
87. An instrument was developed for measuring public attitude toward reoffenders. The following categories of responses were expected from the respondents: strongly agree (SA), agree (A), undecided (U), and strongly disagree (SD). What kind of scaling procedure was used?
- a) Likert-type scale
 - b) Thurstone-type scale
 - c) Guttman-type scale
 - d) None of the above
88. In psychological assessment, _____ refers to the probability that a person without a particular attribute will be correctly identified as not having that attribute
- a) specificity
 - b) sensitivity
 - c) probability sampling
 - d) item discrimination
89. In forensic investigation VIPER is used as a _____
- a) technique of interrogation of the suspect
 - b) method of eye-witness testimony
 - c) lie detection technique
 - d) security surveillance system

90. _____ variables are those, which are not under control of the criminal justice system, and can be manipulated in research (e.g. exposure duration, age or race of the witness, presence of a weapon) and cannot be controlled in actual witnessed incident.
- a) estimator
 - b) system
 - c) predictor
 - d) antecedent
91. Which of the following is not a component or major resource from which mental state of the person at the time of murder can be assessed through?
- a) interview with the accused
 - b) inventory used for forensic psychological assessment
 - c) examination of the murder weapon
 - d) third party information
92. Which of the following characteristics is not considered as the prototype of insanity but may systematically influence jurors' case-relevant attitudes?
- a) severe mental disability
 - b) moral insanity
 - c) vulnerable mental state
 - d) bizarreness crime
93. An abbreviation NGRI used for an individual who at the time of the crime was found to be so mentally disordered that he/she should not be held responsible for the act. The abbreviation stands for
- a) Non Guilty For Reason of Insanity
 - b) Not Guilty by Reasoning Ability
 - c) Not Guilty by Reason of Insanity
 - d) Not Guilty under Reason of Insanity
94. _____, a student of Wilhelm Wundt and a professor at Harvard University, is generally credited with founding the field of forensic psychology.
- a) John H. Wigmore
 - b) Hugo Münsterberg
 - c) Elizabeth Loftus
 - d) William Marston
95. The WAIS-IV intelligence test includes the subtests which are sorted into four indexes. Which of the following indexes are included?
- a) Performance test, verbal comprehension, perceptual reasoning, and processing speed
 - b) Digit span, Digit symbol-coding, Working memory and Verbal Comprehension
 - c) Verbal comprehension, perceptual reasoning, working memory and processing speed
 - d) Block Design, Digit span, Working memory and verbal comprehension

96. Victims of child abuse often completely forget about the memories related to the abuse making those memories completely inaccessible to the conscious mind. What is this defense mechanism called?
- a) Repression
 - b) Suppression
 - c) Reaction Formation
 - d) Projection
97. The device that detects breathing patterns is called
- a) Sphygmomanometer
 - b) Electrodermal meter
 - c) Manometer
 - d) Pneumograph
98. A line disappears at an angle behind a solid figure, reappearing at the other side at what seems to be an incorrect position. This is called _____ illusion
- a) Ponzo
 - b) Poggendorf
 - c) Muler-Lyer
 - d) Horizontal-vertical
99. The _____ was proposed by Easterbrook (1959) to explain why a witness may focus on the weapon rather than other details. The hypothesis suggests that when emotional arousal increases, attentional capacity decreases. With limited attentional capacity, central details are more likely to be encoded than peripheral details.
- a) Threat-focused hypothesis
 - b) Fear-arousal hypothesis
 - c) Attentional-capacity hypothesis
 - d) Cue-utilization hypothesis
100. The NHRC has issued guidelines regarding administration of a Polygraph test to suspects. Which of the following propositions are true as directed by the guidelines?
- (i) The test should be administered with the consent of the subject
 - (ii) The examiner can overrule the consent of the subject on the orders of the court
 - (iii) The subject who consents to the test, should be informed of the legal implications regarding the test
 - (iv) The judge considers the facts such as the length of detention and the protocol of interrogation
 - (v) The words spoken during a polygraph test can be accounted as confessions
- a) Only (i), (iii) & (iv) are true
 - b) Only (i), (ii) & (iv) are true
 - c) Only (i), (iii), (iv) & (v) are true
 - d) All of the above are true

101. _____ is a colloquialism for misrepresenting scientific evidence through selective testing, selective reporting, biased interpretation, overstatement of the significance of test results, the ignoring or withholding of results inconsistent with a biased viewpoint, inappropriate collection and testing of evidence, and fabrication of data.
- a) Evidence Shaping
 - b) Fraud
 - c) Intellectual dishonesty
 - d) Poor credibility
102. In any Experimental design, any independent variable is called a/an _____
- a) dimension
 - b) level
 - c) factor
 - d) element
103. Which of the following statements about Narco-analysis given below is incorrect?
- a) Administration of Narco-analysis tests against the will of the accused is violative of Article 20 (3) of the Constitution.
 - b) Narco-analysis should be used along with other methods of investigation and questioning the suspects.
 - c) During narco-analysis, the accused fails to exercise conscious control over his/her the responses.
 - d) Any information or material that is subsequently discovered with the help of voluntary administered test results (e.g. narcoanalysis) cannot be admitted, in accordance with Section 27 of the Evidence Act.
104. The Brain Electrical Oscillation Signature (BEOS) technique requires _____ trial analysis using pre-probe segment as the baseline for analysis of the response
- a) Single
 - b) Double
 - c) Triple
 - d) Quadruple

105. Which of the following is not the role of a polygraph examiner?
- Consulting the senior attorney to determine the questions to be asked to the accused
 - Hooking the witnesses and suspects up to the polygraph, and asking them questions.
 - Compare the findings with psychological test
 - Create a written report to deliver to judges and attorneys based on the results of the exam.
106. Which of the following facts about Modified General Question Technique (MGQT) is not correct?
- It is a modern variant of the family of Comparison Question Techniques (CQT) and the Zone Comparison Technique.
 - This has a high correlation with many factors in Minnesota Multiphasic Personality Questionnaire (MMPI)
 - Conforms to generally accepted valid principles for psychophysiological detection of deception (PDD) test construction
 - Multivariate analysis found no significant difference between total and sub-total scores of the laboratory sample and those from sample of field investigation cases, using the same technique
107. Which of the following programmes are covered under the 'National Food Security Act, 2013'?
- Mid-day Meal Scheme
 - Integrated Child Development Scheme
 - Public Distribution System
 - Buffer Stock Management
- 2,3 & 4 only
 - 1,3 & 4 only
 - 1,2 & 3 only
 - 1,2,3,4
108. Consider the following statements in connection with Psychoanalytical feminists:
- They do not hold biological factors as responsible for the construction of sexual difference.
 - They analyse both Psychological process as well as biological factors responsible for the construction of sexual difference
 - They explore hidden dynamics at work in personal, inter-personal and social relations and the unconscious dynamics that shape the way we think, feel and act in the world.
 - Freudian Psychoanalysis does not under the category of Psychoanalytical Feminism.

Which of the statements given above are correct?

- 1 and 2
- 3 and 4
- 2 and 3
- 1 and 3

109. Water hyacinth is an example of:

- a) Endangered species
- b) Endemic species
- c) Extinct species
- d) Invasive species

110. Consider the following statements regarding “National Cyber Coordination Center (NCCC)”

- 1. It is an operational cyber security and e-surveillance agency in India
- 2. It comes under the Ministry of Information and Broadcasting.
- 3. It comes under the Ministry of electronics and information technology (MeitY)
- 4. It is a multi-stakeholder agency

Which of the above statements are correct?

- a) 1 and 2
- b) 1 and 3
- c) 1,3 and 4
- d) 1,2 and 4

111. Who was the Cartographer who demarcated the borders of India and Pakistan?

- a) Radcliffe
- b) Mac Mohan
- c) Mountbatten
- d) P. Lawrence

112. Who among the following was the French general in the army of Maharaja Ranjit Singh?

- a) Jean Francois Allard
- b) Colonel John Holmes
- c) Colonel Alexander Gardner
- d) Sir John Hough

113. Who amongst the following headed the 1946 Cabinet Mission?

- a) Hugh Gaitskell
- b) Lord Pethick-Lawrence
- c) Sir John Simon
- d) None of the above

114. Consider the following statements

- 1) The Brahmaputra is the 9th largest and 15th longest river in the world.
- 2) In Arunachal Pradesh, the river Bhramputra is known as Siang/Dihang.
- 3) The river enters Arunachal Pradesh near Gelling where it is known as the Siang or Dihang.
- 4) The total length of the Siang River is 350 km till its point of confluence with the Dibang and Lohit rivers.

Which of the above statements are correct?

- a) 1 and 2 only
- b) 3 and 4 only
- c) 1, 2 and 3 only
- d) All of the above

115. Consider the following statements regarding 80th Golden Globes Awards held recently (2023):

1. The award for Best Motion Picture-Drama was won by “The Banshees of Inisherin”
2. The award for Best Original Song, Motion Picture was won by “Naatu Naatu” from the film “RRR”.
3. The award for Best Director, Motion Picture was won by Steven Spielberg, for the film “The Fabelmans”

Which of the above statements is/are correct?

- a) 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1,2 and 3

116. In which month of the year, Road Safety Week is observed by Ministry of Road Transport & Highways, Government of India?

- a) November
- b) December
- c) January
- d) February

117. A frog jumps out of a dried well 4.5 meters deep with slippery walls. Every time the frog jumps 30 centimetres, slides down 15 centimetres. What is the number of jumps required for the frog to come out of the well?

- a) 28
- b) 30
- c) 29
- d) 31

118. This question is based upon the information given below. Study the information carefully and then choose the correct alternative to answer the question.

Five friends A, B, C, D and E are sitting on a bench.

- (1) A is sitting next to B.
- (2) C is sitting next to D.
- (3) D is not sitting with E.
- (4) E is on the left end of the bench.
- (5) C is on second position from the right.
- (6) A is on the right side of B and to the right side of E.
- (7) A and C are sitting together.

Where is A sitting?

- a) Between B and D
- b) Between D and C
- c) Between B and C
- d) Between C and E

119. Find the missing term from amongst the four alternatives.

WZI, EHJ, XAK, _____, YBM, GJN

- a) ZCO
- b) IFL
- c) FFL
- d) FIL

120. In a class, $\frac{3}{5}$ of the students are girls and remaining are boys. If $\frac{2}{9}$ of the girls and $\frac{1}{4}$ of the boys are absent, what part of the total number of students is present?

- a) $\frac{17}{25}$
- b) $\frac{23}{30}$
- c) $\frac{18}{49}$
- d) $\frac{23}{36}$

SPACE FOR R WORK

PUNJAB PUBLIC SERVICE COMMISSION

Objective Type Test (January-2023) for Recruitment to the post of Scientific Officer and Scientific Assistant (Polygraph) in the Department of Home Affairs & Justice.

READ INSTRUCTIONS BEFORE FILLING ANY DETAILS OR ATTEMPTING TO ANSWER THE QUESTIONS.

Total Questions: 120
Time Allowed: 2 Hours

Candidate's Name _____

Father's Name _____

Date of Birth
DD MM YYYY

OMR Response Sheet No. _____

Roll No. _____

Candidate's Signature (Please sign in the box)

Question Booklet Set
C
Booklet Series No.

INSTRUCTIONS

1. The candidate shall NOT open this booklet till the time told to do so by the Invigilation Staff. However, in the meantime, the candidate can read these instructions carefully and subsequently fill the appropriate columns given above in CAPITAL letters. The candidate may also fill the relevant boxes out of 1 to 9 of the Optical Mark Reader (OMR) response sheet, supplied separately.
2. Use only blue or black ball point pen to fill the relevant columns on this page as well as in OMR sheet. Use of Ink pen or any other pen is not allowed.
3. The candidate shall be liable for any adverse effect if the information given above is wrong or illegible or incomplete.
4. Each candidate is required to attempt 120 questions in 120 minutes, except for orthopedically/visually impaired candidates, who would be given 40 extra minutes, for marking correct responses on the OMR sheet.
5. The question paper booklet has 25 pages.
6. The candidates, when allowed to open the question paper booklet, must first check the entire booklet to confirm that the booklet has complete number of pages, the pages printed correctly and there are no blank pages. In case there is any such error in the question paper booklet then the candidate should IMMEDIATELY bring this fact to the notice of the Invigilation Staff and obtain a new booklet of the same series as given earlier.
7. The serial number of the new Question booklet if issued for some reason should be entered in the relevant column of the OMR. The Invigilation Staff must make necessary corrections in their record regarding the change in the serial no. of Question booklet.
8. The paper consists of total 480 Marks. Each question shall carry 4 marks. There are four options for each question and the candidate has to mark the MOST APPROPRIATE answer on the OMR response sheet.
9. There is negative marking (1 mark for each question) for questions wrongly answered by the candidate.
10. Use of Electronic/Manual Calculator is prohibited.
11. The candidate MUST READ INSTRUCTIONS BEHIND THE OMR SHEET before answering the questions and check that two carbon copies attached to the OMR sheet are intact.

1. Consider the following statements regarding 80th Golden Globes Awards held recently (2023):

1. The award for Best Motion Picture-Drama was won by “The Banshees of Inisherin”
2. The award for Best Original Song, Motion Picture was won by “Naatu Naatu” from the film “RRR”.
3. The award for Best Director, Motion Picture was won by Steven Spielberg, for the film “The Fabelmans”

Which of the above statements is/are correct?

- a) 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1,2 and 3

2. In which month of the year, Road Safety Week is observed by Ministry of Road Transport & Highways, Government of India?

- a) November
- b) December
- c) January
- d) February

3. A frog jumps out of a dried well 4.5 meters deep with slippery walls. Every time the frog jumps 30 centimetres, slides down 15 centimetres. What is the number of jumps required for the frog to come out of the well?

- a) 28
- b) 30
- c) 29
- d) 31

4. This question is based upon the information given below. Study the information carefully and then choose the correct alternative to answer the question.

Five friends A, B, C, D and E are sitting on a bench.

- (1) A is sitting next to B.
- (2) C is sitting next to D.
- (3) D is not sitting with E.
- (4) E is on the left end of the bench.
- (5) C is on second position from the right.
- (6) A is on the right side of B and to the right side of E.
- (7) A and C are sitting together.

Where is A sitting?

- a) Between B and D
- b) Between D and C
- c) Between B and C
- d) Between C and E

5. Find the missing term from amongst the four alternatives.
- WZI, EHJ, XAK, _____, YBM, GJN
- a) ZCO
 - b) IFL
 - c) FFL
 - d) FIL
6. In a class, $\frac{3}{5}$ of the students are girls and remaining are boys. If $\frac{2}{9}$ of the girls and $\frac{1}{4}$ of the boys are absent, what part of the total number of students is present?
- a) $\frac{17}{25}$
 - b) $\frac{23}{30}$
 - c) $\frac{18}{49}$
 - d) $\frac{23}{36}$
7. A sum of money is to be distributed among 5 brothers A, B, C, D and E in the ratio of 7:17:11:13:19 respectively. How much more is the share of E than A, if the sum is Rs. 33500/-?
- a) 6000
 - b) 5600
 - c) 5400
 - d) 6200
8. If the numerator of a fraction is increased by 150% and the denominator of the fraction is increased by 350%, the resultant fraction is $\frac{25}{51}$, what is the original fraction?
- a) $\frac{11}{17}$
 - b) $\frac{11}{15}$
 - c) $\frac{15}{17}$
 - d) $\frac{13}{15}$
9. Two taps can fill a tank in 20 minutes and 30 minutes respectively. There is an outlet tap at exactly half level of that rectangular tank which can pump out 50 litres of water per minute. If the outlet tap is open, then it takes 24 minutes to fill an empty tank. What is the volume of the tank?
- a) 1800 litres
 - b) 1500 litres
 - c) 1200 litres
 - d) 2400 litres

10. If the sides of an equilateral triangle are shortened by 12cms, 13cms and 14cms respectively, a right-angle triangle is formed. Find the length of the side of the equilateral triangle

- a) 18cms
- b) 15cms
- c) 17cms
- d) 19cms

11. A man and his wife appear in an interview for two vacancies in the same post. The probability of husband's selection is $\frac{1}{7}$ and the probability of wife's selection is $\frac{1}{5}$. What is the probability that only one of them is selected?

- a) $\frac{4}{5}$
- b) $\frac{2}{7}$
- c) $\frac{8}{15}$
- d) $\frac{4}{7}$

12. Here are some words translated from an artificial language.

gorblflur means floor carpet
pixngorbl means wooden floor
arthtusl means rack ceiling

Which word could mean "wooden rack"?

- a) *gorbltusl*
- b) *flurgorbl*
- c) *arthflur*
- d) *pixnarth*

13. The structure of the Central Nervous System includes:

- a) Cranial Nerves, Forebrain, Midbrain and Hindbrain
- b) Forebrain, Midbrain, Hindbrain and Spinal Cord
- c) Spinal Nerves, Forebrain, Midbrain and Hindbrain
- d) Spinal Cord, Cranial Nerves, Forebrain, Midbrain

14. Match List –I with List II and find which of the given options is the correct match:

List-I	List-II
1. <i>Cybercrime</i>	a) is defined as “sending or posting harmful or cruel text or images using the Internet or other digital communication devices”
2. <i>Cyberstalking</i>	b) refers to any illegal act that involves a computer system. It is therefore also called computer crime and sometimes, when computers are hacked, computer intrusion.
3. <i>Cyber harassment</i>	c) pertains to threatening or harassing email messages, instant messages, blog entries, or websites dedicated solely to tormenting an individual.
4. <i>Cyberbullying</i>	d) is using the Internet or other forms of electronic communications to threaten or engage in unwanted advances toward another.

- a) 1-b; 2-d; 3-c; 4-a
- b) 1-b; 2-a; 3-c; 4-d
- c) 1-d; 2-a; 3-b; 4-c
- d) 1-d; 2-b; 3-c; 4-a

15. What is correct formula for calculating the IQ of an individual?

- a) $\frac{CA}{MA} \times 100$
- b) $\frac{MA}{CA} \times 100$
- c) $\frac{MA}{SA} \times 100$
- d) $\frac{SA}{MA} \times 100$

16. The word forensic originated from the Latin word forensis , which means _____ and was used to describe a location in ancient Rome.

- a) From the evidence
- b) For the justice
- c) For the peace
- d) Of the forum

17. Which is the most specific test (designed by Hare) for assessing Criminal Psychopathy?
- Disruptive Behaviour Scale
 - Millon Clinical Multiaxial Inventory (MCMI)
 - Minnesota Multiphasic Personality Inventory (MMPI)
 - Psychopathy Checklist (PCL-R)
18. Witnesses to 'real' crime events may experience a higher level of _____, particularly if the witnessed incident involves weapons or violence and the witnesses feel threatened.
- Panic
 - Emotional arousal
 - Emotional Numbness
 - Frozen state
19. The Rorschach Inkblot Test consists of 10 bilaterally symmetrical inkblots printed on separate cards. The 5 achromatic and 5 chromatic inkblots allow an individual to provide responses on the basis of his/ her *percept*. This process facilitates the process known as _____
- Rationalization
 - Apperception
 - Projection
 - Form Interpretation
20. Match List –I with List II and find which of the given options is the correct match:
- | List-I | List-II |
|-----------------------------|---------------------------------------|
| 1) <i>Mesolimbic System</i> | a. Facial recognition |
| 2) <i>Basal Ganglia</i> | b. Supplies blood |
| 3) <i>Fusiform gyrus</i> | c. Dopaminergic pathway |
| 4) <i>Circle of Willis</i> | d. Integrating feelings and movements |
- 1-a, 2-b, 3-c, 4-d
 - 1-c, 2-d, 3-a, 4-b
 - 1-d, 2-a, 3-b, 4-c
 - 1-c, 2-b, 3-d, 4-a
21. One of the most commonly used Personality tests in generating a profile for an individual in the clinical/ forensic setting is the MMPI. Three validity scales on the MMPI are
- The Likeability scale, the Infrequency scale & Symptoms scale
 - The Lie scale, the Frequency scale & Correction scale
 - The Symptom Scale, The Lie scale & Correction Scale
 - The Likeability scale, the Frequency Scale & Lie scale

22. Who gave the 'economical' model of humans possessing free will which allows them to evaluate the costs and benefits of their actions prior to engaging in them?
- a) Adolphe Quetelet
 - b) Cesare Beccaria
 - c) Cesare Lombroso
 - d) Mathey
23. The offending Traumatic Brain Injury link is especially strong if the brain dysfunction is located in the _____ lobe.
- a) Parietal
 - b) Occipital
 - c) Temporal
 - d) Frontal
24. _____ is the term used in genetics for the degree to which related pairs of subjects both show a particular behavior or condition.
- a) Epidemiology
 - b) Concordance
 - c) Prevalence
 - d) Twin studies
25. One source of variance during test construction is _____, term that refers to variation among items within a test as well as to variation among items between tests.
- a) Source of variance
 - b) Item Sampling
 - c) Deviation in the test
 - d) Inter-item consistency
26. Experiments in which part of the brain is damaged and the animal's behavior is subsequently observed are called _____
- a) stereotaxic surgery
 - b) Lesion studies
 - c) Sham Lesion
 - d) Perfusion
27. _____ is a computer assisted X-ray procedure that can be used to visualize the brain and other internal structures of the living body.
- a) Magnetic resonance imaging (MRI)
 - b) Positron emission tomography (PET)
 - c) Computed tomography (CT)
 - d) Diffusion tensor imaging (DTI)

28. Which of the following manual/s is used by Mental Health professionals to diagnose mental conditions for the purpose of treatment?

- (i) Diagnostic and Statistical Manual of Mental Disorders (DSM 5)
- (ii) American Psychiatric Association (APA)
- (iii) International Classification of Disease (ICD 11)
- (iv) World Health Organization (WHO)

- a) Only (i)
- b) Only (i) and (iii)
- c) Only (i), (ii) and (iii)
- d) All of the above

29. _____S refers to the tendency to return to offending, criminal psychopaths commit crimes again and again, regardless of the methods used to stop or rehabilitate them.

- a) Callousness
- b) Emotional disturbances
- c) Recidivism
- d) Reincarceration

30. Match List –I with List II and find which of the given options is the correct match:

List-I

- 1. *Occipital Lobe*
- 2. *Temporal Lobe*
- 3. *Frontal Lobe*
- 4. *Parietal Lobe*

List-II

- a. Executive Functions
- b. Somatosensory Functions
- c. Visual functions
- d. Auditory Functions

- a) 1-c, 2-d, 3-a, 4-b
- b) 1-a, 2-d, 3-c, 4-b
- c) 1-d, 2-a, 3-b, 4-c
- d) 1-c, 2-b, 3-d, 4-a

31. Which sub-cortical structure of the brain is considered as the human emotion regulation system?

- a) Cingulate gyrus
- b) Mammillary body
- c) Hippocampus
- d) Limbic system

32. In _____, an attacker gains unauthorized access to a computer or a network by making it appear that a malicious message has come from the IP address of a trusted machine.
- a) Hijacked Session Attack
 - b) IP Phishing
 - c) IP spoofing
 - d) IP vandalism
33. A diagnosis of Intellectual Impairment (formerly known as Mental Retardation) is determined largely by an IQ
- a) $\text{IQ} < 80$
 - b) $\text{IQ} < 70$
 - c) $\text{IQ} < 90$
 - d) $\text{IQ} < 85$
34. Which brain waves are regular, 8 to 12 per-second, high-amplitude waves that are associated with relaxed wakefulness?
- a) Alpha
 - b) Beta
 - c) Delta
 - d) Gamma
35. Under Section 125 of CrPC, what are the grounds for claiming maintenance for women?
- (i) Divorced by her husband
 - (ii) She took divorced from her husband
 - (iii) She has remarried
 - (iv) She is not able to support herself
 - (v) Both Husband and wife are living separately by mutual consent
- a) Only (i), (ii) & (v)
 - b) Only (i), (ii), (iii) & (v)
 - c) Only (i), (ii) & (iv)
 - d) All of the above
36. Cybercriminals are known to employ the technique of _____ toward their behaviour which include such cognitive approaches as dehumanizing victims and minimizing the extent of the harm they do.
- a) Denial
 - b) Justification
 - c) Neutralization
 - d) Compensation

37. According to Section 26 of the CrPC, any offence mentioned under the Indian Penal Code may be tried by
- a) High court or Supreme Court or Lok Adalat
 - b) High Courts or Courts of Session or Any other Court specified in the First Schedule of Code of Criminal Procedure
 - c) High Court or Tribunal Court or Any other Court specified in the First Schedule of Code of Criminal Procedure
 - d) High Court or Lok Adalat or Any other Court specified in the First Schedule of Code of Criminal Procedure
38. _____, often referred to as PUPS (potentially unwanted programs), as they are often housed with commercial utilities are designed for worthwhile goals like parental control, but which are diverted from their original purpose to commit criminal acts.
- a) Polymorphic code
 - b) Trojans and other malware
 - c) Redirectors
 - d) Pharming
39. The abbreviation SIM often found in mobile phones, stands for:
- a) Subsequent Individual Model
 - b) Solitary Identity Monitor
 - c) Subscribed Individual Method
 - d) Subscriber Identity Module
40. Which of the following is an advanced form of phishing, which redirects the connection between an IP address (i.e., consumer seeking legitimate site) and its target serve (i.e., legitimate site)?
- a) Pharming
 - b) Redirectors
 - c) Spoofing
 - d) Denial of Service attack
41. Two clinical scales from the MMPI-2 have been used singly and in combination to assess characteristics of psychopathy. Which of the following are the two scales for psychopathy?
- a) Variable Response Inconsistency Scale (VRIN) and True Response Inconsistency Scale (TRIN)
 - b) Psychopathic Deviate (Pd) scale and the Lie scale
 - c) Psychopathic Deviate (Pd) scale and the Hypomania (Ma) scale
 - d) True Response Inconsistency Scale (TRIN) and the Lie scale

42. In a CBI-led operation against cyber enabled financial crimes, two call centres through which financial frauds were committed in the U.S. were detected in Pune and Ahmedabad after a rigorous search of 105 places throughout the country. What was the name of this Operation?
- a) Chakra
 - b) Star
 - c) Chanakya
 - d) V-Star
43. A _____ results from errors in the sampling procedures, and it cannot be reduced or eliminated by increasing the sample size. At best the causes responsible for these errors can be detected and corrected.
- a) Researcher's bias
 - b) Randomization Error
 - c) Systematic bias
 - d) Natural bias
44. MMSE stands for
- a) Multi memory state examination
 - b) Multiple mental strata evaluation
 - c) Mini mental state examination
 - d) Meta mental structural evaluation
45. In Schizophrenia psychotic symptoms such as hallucinations, delusions, disorganised speech and grossly disorganised or catatonic behaviours are known as:
- a) Positive symptoms
 - b) Mediating symptoms
 - c) Negative symptoms
 - d) Catastrophic symptoms
46. What is M'Naghten Law?
- a) Plea for Insanity
 - b) Law for Murder
 - c) Plea for Not guilty
 - d) None of the above
47. In which year APA formally approved forensic psychology as an area of specialization?
- a) 2000
 - b) 2001
 - c) 2002
 - d) 2003

48. According to Article 20(3) of the Indian Constitution
- a) No person shall be prosecuted and punished for the same offence more than once
 - b) Penalty greater than that which might have been inflicted under the law in force at the time of the commission of the offence
 - c) No person shall be convicted of any offence except for violation of a law in force at the time
 - d) No person accused of an offence shall be compelled to be a witness against himself
49. Which of the following is a specific brain response that is emitted by the brain of a perpetrator who has the details of a crime stored in his brain?
- a) P300-memrain
 - b) P3000-MERMER
 - c) P300-MERMER
 - d) P30-MERMER
50. Without which document polygraph cannot be conducted?
- a) Consent of the subject(s) recorded before the Judicial Magistrate/Court.
 - b) Statements of the subject(s)
 - c) Post-mortem/other forensic reports
 - d) Crime Scene Sketch and photographs
51. Which of the following Supreme Court judgement is majorly referred for polygraph?
- a) Smt suman & Otrs Vs State of Karnataka
 - b) Smt. somia & Otrs Vs State of Karnataka
 - c) Smt. Selvi & Otrs Vs State of Kerala
 - d) Smt. Selvi & Otrs Vs State of Karnataka
52. In polygraph what is POT?
- a) Peak of abnormality Test
 - b) Peak of provision Test
 - c) Peak of Tension Test
 - d) Peak of memory Test
53. In The Indian evidence Act, forensic psychologists come under which of the following Section?
- a) Section 47
 - b) Section 46
 - c) Section 45
 - d) Section 45 A
54. Who is considered as the father of Modern Criminology?
- a) Cesare Lombroso
 - b) Sigmund Freud
 - c) John B. Watson
 - d) B. F. Skinner

55. Human trafficking is an example of
- a) White collar crime
 - b) Organized crime
 - c) Economic offences
 - d) Hate crime
56. What is young male syndrome?
- a) Higher risk taking attitude
 - b) Low self esteem
 - c) Personality disorder
 - d) None of the above
57. In Code of Criminal Procedure, 1973, confessions are only valid if provided in front of
- a) Magistrate
 - b) Police
 - c) Lawyer
 - d) Witness
58. Intellectual property (IP) crime is most generally known as
- a) brute force attack
 - b) social engineering
 - c) counterfeiting and piracy
 - d) password cracking
59. In criminal law, emphasis is more on
- a) punishment and rehabilitation
 - b) training and rehabilitation
 - c) dispute resolution and victim compensation
 - d) residence and rehabilitation
60. Wada technique involves injection of sodium amytal into _____ artery which briefly anesthetizes the ipsilateral hemisphere.
- a) brachial
 - b) pulmonary
 - c) carotid
 - d) superior thyroid
61. The frequency of theta wave in electroencephalography (EEG) is between _____ Hz
- a) 0.5-4
 - b) 4-7
 - c) 8-13
 - d) 13-40

62. Which of the following brain scanning methods map cerebral blood flow or volume as well as their changes and oxygenation?
- a) Computed Tomography (CT)
 - b) Functional Magnetic Resonance Imaging (fMRI)
 - c) Magnetic Resonance Imaging (MRI)
 - d) Positron Emission Tomography
63. Luteinizing hormone releasing hormone (LHRH) reduces the circulation of testosterone by _____ which plays significant role in sexual behaviour
- a) interfering with the androgen receptor in the brain and blocking the uptake of the testosterone
 - b) activating the enzymes in the liver that increase the clearance of testosterone.
 - c) exhausting the hypothalamic pituitary axis and lowering the production of testosterone
 - d) all of the above
64. Wernicke's area involved in speech comprehension is located in _____
- a) Parietal lobe
 - b) Prefrontal cortex
 - c) Fronto-temporal lobe
 - d) Temporal lobe
65. Tendency to perceive object as whole entities, despite the facts that some parts may be missing or obstructed from view is due to _____
- a) Law of closure
 - b) Law of Proximity
 - c) Law of similarity
 - d) Law of continuation
66. According to the principles of _____ a particular behaviour (e.g. lying) is more likely to be repeated when it has been favourably productive in the past (e.g. avoiding punishment).
- a) Classical conditioning
 - b) Operant conditioning
 - c) Observational learning
 - d) Sign learning
67. The acquisition of new information, concepts or forms of behaviour through exposure to others and the consequences they experience is called _____
- a) Insightful learning
 - b) Sign learning
 - c) Observational learning
 - d) Experiential learning

68. Impairments in motivation can be seen in patients suffering from _____ due to damage to the networks controlling the sympathetic nervous system
- a) autonomic hyperarousal
 - b) autonomic hypoarousal
 - c) reactivity to stress
 - d) none of the above
69. Select from the alternatives, the Abraham Maslow's need hierarchy which is provided in right order _____
- a) Safety, Physiological, Esteem, Belongingness, Self-actualization
 - b) Esteem, Belongingness, Safety, Physiological, Self-actualization
 - c) Physiological, Safety, Belongingness, Esteem, Self-actualization
 - d) Safety, Esteem, Physiological, Belongingness, Self-actualization
70. A criminal not only remembers the event (crime) but also some aspects of the crime scene. This is best described as his _____ memory.
- a) iconic
 - b) echoic
 - c) episodic
 - d) semantic
71. Inability to store new long-term memories is called
- a) anterograde amnesia
 - b) retrograde amnesia
 - c) hypermnesia
 - d) forgetting
72. Which of the following is not a factor in the Structure-of-Intelligence Model (Guilford, 1967)?
- a) Operations
 - b) Response latency
 - c) Contents
 - d) Products
73. _____ suggested that measures of reaction time is strongly related to IQ score, which supported the assumption that speed of information processing is the essential basis of 'g' factor.
- a) Hans Eysenck
 - b) Francis Galton
 - c) Charles Spearman
 - d) Raymond Cattell

74. Which of the following is the final stage (characteristic) in Kohlberg's theory of Moral development?
- a) Personal morality based on abstract principles
 - b) Adheres to social contract when it is valid
 - c) Nice behaviour in exchange of future favour
 - d) Obedience to authority
75. _____ involves comparison of at least one naturally occurring independent variable to estimate its causal relationship with at least one dependent variable without making random allocation to different conditions of the independent variable
- a) Experimental study
 - b) Quasi-experimental study
 - c) Cohort study
 - d) Randomized Control Trial
76. _____ requires the study of test scores in relation to not only to variables that the test is intended to assess, but also in relation to the study of those variables that have no relationship to the domain underlying the instrument.
- a) Criterion-based validity
 - b) Face validity
 - c) Construct validity
 - d) None of the above
77. Which of the following is not a standard neuropsychological test?
- a) Category Test
 - b) Embedded Figures Test
 - c) Trail Making Test
 - d) Finger Oscillation Test
78. *Actus reus* refers to _____
- a) Finding someone guilty due to wrongful purpose in a crime
 - b) Finding someone guilty due to wrongful deed in a crime
 - c) Finding someone guilty due to presence in the crime scene
 - d) Finding someone guilty due to wrongful confession in a crime
79. Who developed a brain finger printing, a neuropsychological method of interrogation in India called Brain Electrical Oscillation Signature Profiling?
- a) R. C. Tripathy
 - b) Malavika Kapur
 - c) C. R. Mukundan
 - d) S. L. Vaya

80. _____ occurs when Internet use becomes the primary activity in an user's life and dominates thinking, feelings and behaviour
- a) Tolerance
 - b) Salience
 - c) Contextualization
 - d) Task-cued behaviour
81. A growing fraction of human thoughts, behaviours, and preferences leave digital traces that can be easily recorded, stored and analyzed. This information is called _____
- a) Digital blueprints
 - b) Digital footprints
 - c) Usage logs
 - d) Language data
82. Which theory of hypnosis suggests that hypnotized individuals enter an altered state of consciousness in which consciousness is divided?
- a) Neo-dissociation
 - b) Socio-cognitive
 - c) Habituation
 - d) Stimulus Deprivation
83. People often revise their memories, saying that how an event turned out was what they expected all along. This is called _____
- a) hindsight bias
 - b) foresight bias
 - c) expectancy bias
 - d) consolidation of memory
84. Identify the lie detection test which is based on examination of voice under stress
- a) Voice Lab Functional Test
 - b) Layered Voice Analysis
 - c) Laryngeal Video Myography
 - d) None of the above
85. Which of the following is considered as a method of brain fingerprinting?
- a) Functional Magnetic Resonance Imaging
 - b) Positron Emission Tomography
 - c) CQT Polygraph Testing
 - d) ERP-based GKT procedure
86. Navaco (1975) developed an anger management programme which was based on _____
- a) Suppression of anger
 - b) Catharsis
 - c) Cognitive-behavioural approach
 - d) Information-processing approach

87. Which of the following forms of violence occurs when the injury of an individual is secondary to the acquisition of some other goals?
- a) Reactive
 - b) Instrumental
 - c) Observational
 - d) Hostile attribution
88. The Guilty Knowledge Test (GNT) is also called _____ Test for criminal profiling.
- a) Projective
 - b) Psychophysiological
 - c) Concealed Information
 - d) Reflectivity Confirmation
89. Which of the following characteristic defines a serial killer?
- a) Multiple victims over a variety of locations and has a cooling off period between kills
 - b) Multiple victims over a variety of locations all occurring within a single period of time.
 - c) Multiple victims intentionally killed in a single location and single period of time
 - d) None of the above
90. Which of the following is not a drug-related crime?
- a) Possession of rugs
 - b) Manufacturing of drugs
 - c) Consumptions of drugs
 - d) Distribution of drugs
91. Which of the following statement about Admissibility of Forensic Report in Court (Section 293 Cr.PC) is incorrect?
- a) The Public Analyst's reports of qualitative nature, is acceptable as evidence in the court of law
 - b) It is not obligatory upon a Court to use the report of the experts mentioned in Section 293 as evidence in every case
 - c) A Court is not bound to accept and act on a report as conclusive evidence of its contents
 - d) The Court just gives its authority to the conclusion of the Public Analyst and this cannot be the position in law
92. A false positive in a psychological test for lie detection refers to a result that _____
- a) incorrectly indicate that a particular condition or attribute is absent
 - b) incorrectly indicate that a particular condition or attribute is present
 - c) correctly indicate that a particular condition or attribute is absent
 - d) correctly indicate that a particular condition or attribute is present

93. An instrument was developed for measuring public attitude toward reoffenders. The following categories of responses were expected from the respondents: strongly agree (SA), agree (A), undecided (U), and strongly disagree (SD). What kind of scaling procedure was used?
- a) Likert-type scale
 - b) Thurstone-type scale
 - c) Gutman-type scale
 - d) None of the above
94. In psychological assessment, _____ refers to the probability that a person without a particular attribute will be correctly identified as not having that attribute
- a) specificity
 - b) sensitivity
 - c) probability sampling
 - d) item discrimination
95. In forensic investigation VIPER is used as a _____
- a) technique of interrogation of the suspect
 - b) method of eye-witness testimony
 - c) lie detection technique
 - d) security surveillance system
96. _____ variables are those, which are not under control of the criminal justice system, and can be manipulated in research (e.g. exposure duration, age or race of the witness, presence of a weapon) and cannot be controlled in actual witnessed incident.
- a) estimator
 - b) system
 - c) predictor
 - d) antecedent
97. Which of the following is not a component or major resource from which mental state of the person at the time of murder can be assessed through?
- a) interview with the accused
 - b) inventory used for forensic psychological assessment
 - c) examination of the murder weapon
 - d) third party information
98. Which of the following characteristics is not considered as the prototype of insanity but may systematically influence jurors' case-relevant attitudes?
- a) severe mental disability
 - b) moral insanity
 - c) vulnerable mental state
 - d) bizarreness crime

99. An abbreviation NGRI used for an individual who at the time of the crime was found to be so mentally disordered that he/she should not be held responsible for the act. The abbreviation stands for
- a) Non Guilty For Reason of Insanity
 - b) Not Guilty by Reasoning Ability
 - c) Not Guilty by Reason of Insanity
 - d) Not Guilty under Reason of Insanity
100. _____, a student of Wilhelm Wundt and a professor at Harvard University, is generally credited with founding the field of forensic psychology.
- a) John H. Wigmore
 - b) Hugo Münsterberg
 - c) Elizabeth Loftus
 - d) William Marston
101. The WAIS-IV intelligence test includes the subtests which are sorted into four indexes. Which of the following indexes are included?
- a) Performance test, verbal comprehension, perceptual reasoning, and processing speed
 - b) Digit span, Digit symbol-coding, Working memory and Verbal Comprehension
 - c) Verbal comprehension, perceptual reasoning, working memory and processing speed
 - d) Block Design, Digit span, Working memory and verbal comprehension
102. Victims of child abuse often completely forget about the memories related to the abuse making those memories completely inaccessible to the conscious mind. What is this defense mechanism called?
- a) Repression
 - b) Suppression
 - c) Reaction Formation
 - d) Projection
103. The device that detects breathing patterns is called
- a) Sphygmomanometer
 - b) Electrodermal meter
 - c) Manometer
 - d) Pneumograph
104. A line disappears at an angle behind a solid figure, reappearing at the other side at what seems to be an incorrect position. This is called _____ illusion
- a) Ponzo
 - b) Poggendorf
 - c) Muler-Lyer
 - d) Horizontal-vertical

105. The _____ was proposed by Easterbrook (1959) to explain why a witness may focus on the weapon rather than other details. The hypothesis suggests that when emotional arousal increases, attentional capacity decreases. With limited attentional capacity, central details are more likely to be encoded than peripheral details.

- a) Threat-focused hypothesis
- b) Fear-arousal hypothesis
- c) Attentional-capacity hypothesis
- d) Cue-utilization hypothesis

106. The NHRC has issued guidelines regarding administration of a Polygraph test to suspects. Which of the following propositions are true as directed by the guidelines?

- (i) The test should be administered with the consent of the subject
- (ii) The examiner can overrule the consent of the subject on the orders of the court
- (iii) The subject who consents to the test, should be informed of the legal implications regarding the test
- (iv) The judge considers the facts such as the length of detention and the protocol of interrogation
- (v) The words spoken during a polygraph test can be accounted as confessions

- a) Only (i), (iii) & (iv) are true
- b) Only (i), (ii) & (iv) are true
- c) Only (i), (iii), (iv) & (v) are true
- d) All of the above are true

107. _____ is a colloquialism for misrepresenting scientific evidence through selective testing, selective reporting, biased interpretation, overstatement of the significance of test results, the ignoring or withholding of results inconsistent with a biased viewpoint, inappropriate collection and testing of evidence, and fabrication of data.

- a) Evidence Shaping
- b) Fraud
- c) Intellectual dishonesty
- d) Poor credibility

108. In any Experimental design, any independent variable is called a/an _____

- a) dimension
- b) level
- c) factor
- d) element

109. Which of the following statements about Narco-analysis given below is incorrect?
- a) Administration of Narco-analysis tests against the will of the accused is violative of Article 20 (3) of the Constitution.
 - b) Narco-analysis should be used along with other methods of investigation and questioning the suspects.
 - c) During narco-analysis, the accused fails to exercise conscious control over his/her the responses.
 - d) Any information or material that is subsequently discovered with the help of voluntary administered test results (e.g. narcoanalysis) cannot be admitted, in accordance with Section 27 of the Evidence Act.
110. The Brain Electrical Oscillation Signature (BEOS) technique requires _____ trial analysis using pre-probe segment as the baseline for analysis of the response
- a) Single
 - b) Double
 - c) Triple
 - d) Quadruple
111. Which of the following is not the role of a polygraph examiner?
- a) Consulting the senior attorney to determine the questions to be asked to the accused
 - b) Hooking the witnesses and suspects up to the polygraph, and asking them questions.
 - c) Compare the findings with psychological test
 - d) Create a written report to deliver to judges and attorneys based on the results of the exam.
112. Which of the following facts about Modified General Question Technique (MGQT) is not correct?
- a) It is a modern variant of the family of Comparison Question Techniques (CQT) and the Zone Comparison Technique.
 - b) This has a high correlation with many factors in Minnesota Multiphasic Personality Questionnaire (MMPI)
 - c) Conforms to generally accepted valid principles for psychophysiological detection of deception (PDD) test construction
 - d) Multivariate analysis found no significant difference between total and sub-total scores of the laboratory sample and those from sample of field investigation cases, using the same technique

113. Which of the following programmes are covered under the 'National Food Security Act, 2013'?

1. Mid-day Meal Scheme
 2. Integrated Child Development Scheme
 3. Public Distribution System
 4. Buffer Stock Management
- a) 2,3 & 4 only
 - b) 1,3 & 4 only
 - c) 1,2 & 3 only
 - d) 1,2,3,4

114. Consider the following statements in connection with Psychoanalytical feminists:

- (1) They do not hold biological factors as responsible for the construction of sexual difference.
- (2) They analyse both Psychological process as well as biological factors responsible for the construction of sexual difference
- (3) They explore hidden dynamics at work in personal, inter-personal and social relations and the unconscious dynamics that shape the way we think, feel and act in the world.
- (4) Freudian Psychoanalysis does not under the category of Psychoanalytical Feminism.

Which of the statements given above are correct?

- a) 1 and 2
- b) 3 and 4
- c) 2 and 3
- d) 1 and 3

115. Water hyacinth is an example of:

- a) Endangered species
- b) Endemic species
- c) Extinct species
- d) Invasive species

116. Consider the following statements regarding “National Cyber Coordination Center (NCCC)”

1. It is an operational cyber security and e-surveillance agency in India
2. It comes under the Ministry of Information and Broadcasting.
3. It comes under the Ministry of electronics and information technology (MeitY)
4. It is a multi-stakeholder agency

Which of the above statements are correct?

- a) 1 and 2
- b) 1 and 3
- c) 1,3 and 4
- d) 1,2 and 4

117. Who was the Cartographer who demarcated the borders of India and Pakistan?
- a) Radcliffe
 - b) Mac Mohan
 - c) Mountbatten
 - d) P. Lawrence
118. Who among the following was the French general in the army of Maharaja Ranjit Singh?
- a) Jean Francois Allard
 - b) Colonel John Holmes
 - c) Colonel Alexander Gardner
 - d) Sir John Hough
119. Who amongst the following headed the 1946 Cabinet Mission?
- a) Hugh Gaitskell
 - b) Lord Pethick-Lawrence
 - c) Sir John Simon
 - d) None of the above
120. Consider the following statements
- 1) The Brahmaputra is the 9th largest and 15th longest river in the world.
 - 2) In Arunachal Pradesh, the river Bhramputra is known as Siang/Dihang.
 - 3) The river enters Arunachal Pradesh near Gelling where it is known as the Siang or Dihang.
 - 4) The total length of the Siang River is 350 km till its point of confluence with the Dibang and Lohit rivers.

Which of the above statements are correct?

- | | |
|--------------------|---------------------|
| a) 1 and 2 only | b) 3 and 4 only |
| c) 1, 2 and 3 only | d) All of the above |

SPACE FOR ROUGH WORK

PUNJAB PUBLIC SERVICE COMMISSION

Objective Type Test (January-2023) for Recruitment to the post of Scientific Officer and Scientific Assistant (Polygraph) in the Department of Home Affairs & Justice.

READ INSTRUCTIONS BEFORE FILLING ANY DETAILS OR ATTEMPTING TO ANSWER THE QUESTIONS.

Total Questions: 120
Time Allowed: 2 Hours

Candidate's Name _____

Father's Name _____

Date of Birth

--	--

--	--

--	--	--	--

DD MM YYYY

OMR Response Sheet No. _____

Roll No. _____

Candidate's Signature (Please sign in the box)

--

Question Booklet Set
D
Booklet Series No.

INSTRUCTIONS

1. The candidate shall NOT open this booklet till the time told to do so by the Invigilation Staff. However, in the meantime, the candidate can read these instructions carefully and subsequently fill the appropriate columns given above in CAPITAL letters. The candidate may also fill the relevant boxes out of 1 to 9 of the Optical Mark Reader (OMR) response sheet, supplied separately.
2. Use only blue or black ball point pen to fill the relevant columns on this page as well as in OMR sheet. Use of Ink pen or any other pen is not allowed.
3. The candidate shall be liable for any adverse effect if the information given above is wrong or illegible or incomplete.
4. Each candidate is required to attempt 120 questions in 120 minutes, except for orthopedically/visually impaired candidates, who would be given 40 extra minutes, for marking correct responses on the OMR sheet.
5. The question paper booklet has 25 pages.
6. The candidates, when allowed to open the question paper booklet, must first check the entire booklet to confirm that the booklet has complete number of pages, the pages printed correctly and there are no blank pages. In case there is any such error in the question paper booklet then the candidate should IMMEDIATELY bring this fact to the notice of the Invigilation Staff and obtain a new booklet of the same series as given earlier.
7. The serial number of the new Question booklet if issued for some reason should be entered in the relevant column of the OMR. The Invigilation Staff must make necessary corrections in their record regarding the change in the serial no. of Question booklet.
8. The paper consists of total 480 Marks. Each question shall carry 4 marks. There are four options for each question and the candidate has to mark the MOST APPROPRIATE answer on the OMR response sheet.
9. There is negative marking (1 mark for each question) for questions wrongly answered by the candidate.
10. Use of Electronic/Manual Calculator is prohibited.
11. The candidate MUST READ INSTRUCTIONS BEHIND THE OMR SHEET before answering the questions and check that two carbon copies attached to the OMR sheet are intact.

1. Find the missing term from amongst the four alternatives.
WZI, EHJ, XAK, _____, YBM, GJN
 - a) ZCO
 - b) IFL
 - c) FFL
 - d) FIL
2. In a class, $\frac{3}{5}$ of the students are girls and remaining are boys. If $\frac{2}{9}$ of the girls and $\frac{1}{4}$ of the boys are absent, what part of the total number of students is present?
 - a) $\frac{17}{25}$
 - b) $\frac{23}{30}$
 - c) $\frac{18}{49}$
 - d) $\frac{23}{36}$
3. A sum of money is to be distributed among 5 brothers A, B, C, D and E in the ratio of 7:17:11:13:19 respectively. How much more is the share of E than A, if the sum is Rs. 33500/-?
 - a) 6000
 - b) 5600
 - c) 5400
 - d) 6200
4. If the numerator of a fraction is increased by 150% and the denominator of the fraction is increased by 350%, the resultant fraction is $\frac{25}{51}$, what is the original fraction?
 - a) $\frac{11}{17}$
 - b) $\frac{11}{15}$
 - c) $\frac{15}{17}$
 - d) $\frac{13}{15}$
5. Two taps can fill a tank in 20 minutes and 30 minutes respectively. There is an outlet tap at exactly half level of that rectangular tank which can pump out 50 litres of water per minute. If the outlet tap is open, then it takes 24 minutes to fill an empty tank. What is the volume of the tank?
 - a) 1800 litres
 - b) 1500 litres
 - c) 1200 litres
 - d) 2400 litres

6. If the sides of an equilateral triangle are shortened by 12cms, 13cms and 14cms respectively, a right-angle triangle is formed. Find the length of the side of the equilateral triangle
- a) 18cms
 - b) 15cms
 - c) 17cms
 - d) 19cms
7. A man and his wife appear in an interview for two vacancies in the same post. The probability of husband's selection is $\frac{1}{7}$ and the probability of wife's selection is $\frac{1}{5}$. What is the probability that only one of them is selected?
- a) $\frac{4}{5}$
 - b) $\frac{2}{7}$
 - c) $\frac{8}{15}$
 - d) $\frac{4}{7}$
8. Here are some words translated from an artificial language.
gorblflur means floor carpet
pixngorbl means wooden floor
arthtusl means rack ceiling
 Which word could mean "wooden rack"?
- a) *gorbltusl*
 - b) *flurgorbl*
 - c) *arthflur*
 - d) *pixnarth*
9. The structure of the Central Nervous System includes:
- a) Cranial Nerves, Forebrain, Midbrain and Hindbrain
 - b) Forebrain, Midbrain, Hindbrain and Spinal Cord
 - c) Spinal Nerves, Forebrain, Midbrain and Hindbrain
 - d) Spinal Cord, Cranial Nerves, Forebrain, Midbrain

10. Match List –I with List II and find which of the given options is the correct match:

List-I	List-II
1. <i>Cybercrime</i>	a) is defined as “sending or posting harmful or cruel text or images using the Internet or other digital communication devices”
2. <i>Cyberstalking</i>	b) refers to any illegal act that involves a computer system. It is therefore also called computer crime and sometimes, when computers are hacked, computer intrusion.
3. <i>Cyber harassment</i>	c) pertains to threatening or harassing email messages, instant messages, blog entries, or websites dedicated solely to tormenting an individual.
4. <i>Cyberbullying</i>	d) is using the Internet or other forms of electronic communications to threaten or engage in unwanted advances toward another.

- a) 1-b; 2-d; 3-c; 4-a
- b) 1-b; 2-a; 3-c; 4-d
- c) 1-d; 2-a; 3-b; 4-c
- d) 1-d; 2-b; 3-c; 4-a

11. What is correct formula for calculating the IQ of an individual?

- a) $\frac{CA}{MA} \times 100$
- b) $\frac{MA}{CA} \times 100$
- c) $\frac{MA}{SA} \times 100$
- d) $\frac{SA}{MA} \times 100$

12. The word forensic originated from the Latin word forensis , which means _____ and was used to describe a location in ancient Rome.

- a) From the evidence
- b) For the justice
- c) For the peace
- d) Of the forum

13. Which is the most specific test (designed by Hare) for assessing Criminal Psychopathy?
- Disruptive Behaviour Scale
 - Millon Clinical Multiaxial Inventory (MCMI)
 - Minnesota Multiphasic Personality Inventory (MMPI)
 - Psychopathy Checklist (PCL-R)
14. Witnesses to 'real' crime events may experience a higher level of _____, particularly if the witnessed incident involves weapons or violence and the witnesses feel threatened.
- Panic
 - Emotional arousal
 - Emotional Numbness
 - Frozen state
15. The Rorschach Inkblot Test consists of 10 bilaterally symmetrical inkblots printed on separate cards. The 5 achromatic and 5 chromatic inkblots allow an individual to provide responses on the basis of his/ her *percept*. This process facilitates the process known as
- Rationalization
 - Apperception
 - Projection
 - Form Interpretation
16. Match List –I with List II and find which of the given options is the correct match:
- | List-I | List-II |
|-----------------------------|---------------------------------------|
| 1) <i>Mesolimbic System</i> | a. Facial recognition |
| 2) <i>Basal Ganglia</i> | b. Supplies blood |
| 3) <i>Fusiform gyrus</i> | c. Dopaminergic pathway |
| 4) <i>Circle of Willis</i> | d. Integrating feelings and movements |
- 1-a, 2-b, 3-c, 4-d
 - 1-c, 2-d, 3-a, 4-b
 - 1-d, 2-a, 3-b, 4-c
 - 1-c, 2-b, 3-d, 4-a
17. One of the most commonly used Personality tests in generating a profile for an individual in the clinical/ forensic setting is the MMPI. Three validity scales on the MMPI are
- The Likeability scale, the Infrequency scale & Symptoms scale
 - The Lie scale, the Frequency scale & Correction scale
 - The Symptom Scale, The Lie scale & Correction Scale
 - The Likeability scale, the Frequency Scale & Lie scale

18. Who gave the 'economical' model of humans possessing free will which allows them to evaluate the costs and benefits of their actions prior to engaging in them?
- a) Adolphe Quetelet
 - b) Cesare Beccaria
 - c) Cesare Lombroso
 - d) Mathey
19. The offending Traumatic Brain Injury link is especially strong if the brain dysfunction is located in the _____ lobe.
- a) Parietal
 - b) Occipital
 - c) Temporal
 - d) Frontal
20. _____ is the term used in genetics for the degree to which related pairs of subjects both show a particular behavior or condition.
- a) Epidemiology
 - b) Concordance
 - c) Prevalence
 - d) Twin studies
21. One source of variance during test construction is _____, term that refers to variation among items within a test as well as to variation among items between tests.
- a) Source of variance
 - b) Item Sampling
 - c) Deviation in the test
 - d) Inter-item consistency
22. Experiments in which part of the brain is damaged and the animal's behavior is subsequently observed are called _____
- a) stereotaxic surgery
 - b) Lesion studies
 - c) Sham Lesion
 - d) Perfusion
23. _____ is a computer assisted X-ray procedure that can be used to visualize the brain and other internal structures of the living body.
- a) Magnetic resonance imaging (MRI)
 - b) Positron emission tomography (PET)
 - c) Computed tomography (CT)
 - d) Diffusion tensor imaging (DTI)

24. Which of the following manual/s is used by Mental Health professionals to diagnose mental conditions for the purpose of treatment?

- (i) Diagnostic and Statistical Manual of Mental Disorders (DSM 5)
- (ii) American Psychiatric Association (APA)
- (iii) International Classification of Disease (ICD 11)
- (iv) World Health Organization (WHO)

- a) Only (i)
- b) Only (i) and (iii)
- c) Only (i), (ii) and (iii)
- d) All of the above

25. _____S refers to the tendency to return to offending, criminal psychopaths commit crimes again and again, regardless of the methods used to stop or rehabilitate them.

- a) Callousness
- b) Emotional disturbances
- c) Recidivism
- d) Reincarceration

26. Match List –I with List II and find which of the given options is the correct match:

List-I

- 1. *Occipital Lobe*
- 2. *Temporal Lobe*
- 3. *Frontal Lobe*
- 4. *Parietal Lobe*

List-II

- a. Executive Functions
- b. Somatosensory Functions
- c. Visual functions
- d. Auditory Functions

- a) 1-c, 2-d, 3-a, 4-b
- b) 1-a, 2-d, 3-c, 4-b
- c) 1-d, 2-a, 3-b, 4-c
- d) 1-c, 2-b, 3-d, 4-a

27. Which sub-cortical structure of the brain is considered as the human emotion regulation system?

- a) Cingulate gyrus
- b) Mammillary body
- c) Hippocampus
- d) Limbic system

28. In _____, an attacker gains unauthorized access to a computer or a network by making it appear that a malicious message has come from the IP address of a trusted machine.
- a) Hijacked Session Attack
 - b) IP Phishing
 - c) IP spoofing
 - d) IP vandalism
29. A diagnosis of Intellectual Impairment (formerly known as Mental Retardation) is determined largely by an IQ
- a) $\text{IQ} < 80$
 - b) $\text{IQ} < 70$
 - c) $\text{IQ} < 90$
 - d) $\text{IQ} < 85$
30. Which brain waves are regular, 8 to 12 per-second, high-amplitude waves that are associated with relaxed wakefulness?
- a) Alpha
 - b) Beta
 - c) Delta
 - d) Gamma
31. Under Section 125 of CrPC, what are the grounds for claiming maintenance for women?
- (i) Divorced by her husband
 - (ii) She took divorced from her husband
 - (iii) She has remarried
 - (iv) She is not able to support herself
 - (v) Both Husband and wife are living separately by mutual consent
- a) Only (i), (ii) & (v)
 - b) Only (i), (ii), (iii) & (v)
 - c) Only (i), (ii) & (iv)
 - d) All of the above
32. Cybercriminals are known to employ the technique of _____ toward their behaviour which include such cognitive approaches as dehumanizing victims and minimizing the extent of the harm they do.
- a) Denial
 - b) Justification
 - c) Neutralization
 - d) Compensation

33. According to Section 26 of the CrPC, any offence mentioned under the Indian Penal Code may be tried by
- a) High court or Supreme Court or Lok Adalat
 - b) High Courts or Courts of Session or Any other Court specified in the First Schedule of Code of Criminal Procedure
 - c) High Court or Tribunal Court or Any other Court specified in the First Schedule of Code of Criminal Procedure
 - d) High Court or Lok Adalat or Any other Court specified in the First Schedule of Code of Criminal Procedure
34. _____, often referred to as PUPS (potentially unwanted programs), as they are often housed with commercial utilities are designed for worthwhile goals like parental control, but which are diverted from their original purpose to commit criminal acts.
- a) Polymorphic code
 - b) Trojans and other malware
 - c) Redirectors
 - d) Pharming
35. The abbreviation SIM often found in mobile phones, stands for:
- a) Subsequent Individual Model
 - b) Solitary Identity Monitor
 - c) Subscribed Individual Method
 - d) Subscriber Identity Module
36. Which of the following is an advanced form of phishing, which redirects the connection between an IP address (i.e., consumer seeking legitimate site) and its target serve (i.e., legitimate site)?
- a) Pharming
 - b) Redirectors
 - c) Spoofing
 - d) Denial of Service attack
37. Two clinical scales from the MMPI-2 have been used singly and in combination to assess characteristics of psychopathy. Which of the following are the two scales for psychopathy?
- a) Variable Response Inconsistency Scale (VRIN) and True Response Inconsistency Scale (TRIN)
 - b) Psychopathic Deviate (Pd) scale and the Lie scale
 - c) Psychopathic Deviate (Pd) scale and the Hypomania (Ma) scale
 - d) True Response Inconsistency Scale (TRIN) and the Lie scale

38. In a CBI-led operation against cyber enabled financial crimes, two call centres through which financial frauds were committed in the U.S. were detected in Pune and Ahmedabad after a rigorous search of 105 places throughout the country. What was the name of this Operation?
- a) Chakra
 - b) Star
 - c) Chanakya
 - d) V-Star
39. A _____ results from errors in the sampling procedures, and it cannot be reduced or eliminated by increasing the sample size. At best the causes responsible for these errors can be detected and corrected.
- a) Researcher's bias
 - b) Randomization Error
 - c) Systematic bias
 - d) Natural bias
40. MMSE stands for
- a) Multi memory state examination
 - b) Multiple mental strata evaluation
 - c) Mini mental state examination
 - d) Meta mental structural evaluation
41. In Schizophrenia psychotic symptoms such as hallucinations, delusions, disorganised speech and grossly disorganised or catatonic behaviours are known as:
- a) Positive symptoms
 - b) Mediating symptoms
 - c) Negative symptoms
 - d) Catastrophic symptoms
42. What is M'Naghten Law?
- a) Plea for Insanity
 - b) Law for Murder
 - c) Plea for Not guilty
 - d) None of the above
43. In which year APA formally approved forensic psychology as an area of specialization?
- a) 2000
 - b) 2001
 - c) 2002
 - d) 2003

44. According to Article 20(3) of the Indian Constitution
- a) No person shall be prosecuted and punished for the same offence more than once
 - b) Penalty greater than that which might have been inflicted under the law in force at the time of the commission of the offence
 - c) No person shall be convicted of any offence except for violation of a law in force at the time
 - d) No person accused of an offence shall be compelled to be a witness against himself
45. Which of the following is a specific brain response that is emitted by the brain of a perpetrator who has the details of a crime stored in his brain?
- a) P300-memrain
 - b) P3000-MERMER
 - c) P300-MERMER
 - d) P30-MERMER
46. Without which document polygraph cannot be conducted?
- a) Consent of the subject(s) recorded before the Judicial Magistrate/Court.
 - b) Statements of the subject(s)
 - c) Post-mortem/other forensic reports
 - d) Crime Scene Sketch and photographs
47. Which of the following Supreme Court judgement is majorly referred for polygraph?
- a) Smt suman & Otrs Vs State of Karnataka
 - b) Smt. somia & Otrs Vs State of Karnataka
 - c) Smt. Selvi & Otrs Vs State of Kerala
 - d) Smt. Selvi & Otrs Vs State of Karnataka
48. In polygraph what is POT?
- a) Peak of abnormality Test
 - b) Peak of provision Test
 - c) Peak of Tension Test
 - d) Peak of memory Test
49. In The Indian evidence Act, forensic psychologists come under which of the following Section?
- a) Section 47
 - b) Section 46
 - c) Section 45
 - d) Section 45 A
50. Who is considered as the father of Modern Criminology?
- a) Cesare Lombroso
 - b) Sigmund Freud
 - c) John B. Watson
 - d) B. F. Skinner

51. Human trafficking is an example of
- a) White collar crime
 - b) Organized crime
 - c) Economic offences
 - d) Hate crime
52. What is young male syndrome?
- a) Higher risk taking attitude
 - b) Low self esteem
 - c) Personality disorder
 - d) None of the above
53. In Code of Criminal Procedure, 1973, confessions are only valid if provided in front of
- a) Magistrate
 - b) Police
 - c) Lawyer
 - d) Witness
54. Intellectual property (IP) crime is most generally known as
- a) brute force attack
 - b) social engineering
 - c) counterfeiting and piracy
 - d) password cracking
55. In criminal law, emphasis is more on
- a) punishment and rehabilitation
 - b) training and rehabilitation
 - c) dispute resolution and victim compensation
 - d) residence and rehabilitation
56. Wada technique involves injection of sodium amytal into _____ artery which briefly anesthetizes the ipsilateral hemisphere.
- a) brachial
 - b) pulmonary
 - c) carotid
 - d) superior thyroid
57. The frequency of theta wave in electroencephalography (EEG) is between _____ Hz
- a) 0.5-4
 - b) 4-7
 - c) 8-13
 - d) 13-40

58. Which of the following brain scanning methods map cerebral blood flow or volume as well as their changes and oxygenation?
- a) Computed Tomography (CT)
 - b) Functional Magnetic Resonance Imaging (fMRI)
 - c) Magnetic Resonance Imaging (MRI)
 - d) Positron Emission Tomography
59. Luteinizing hormone releasing hormone (LHRH) reduces the circulation of testosterone by _____ which plays significant role in sexual behaviour
- a) interfering with the androgen receptor in the brain and blocking the uptake of the testosterone
 - b) activating the enzymes in the liver that increase the clearance of testosterone.
 - c) exhausting the hypothalamic pituitary axis and lowering the production of testosterone
 - d) all of the above
60. Wernicke's area involved in speech comprehension is located in _____
- a) Parietal lobe
 - b) Prefrontal cortex
 - c) Fronto-temporal lobe
 - d) Temporal lobe
61. Tendency to perceive object as whole entities, despite the facts that some parts may be missing or obstructed from view is due to _____
- a) Law of closure
 - b) Law of Proximity
 - c) Law of similarity
 - d) Law of continuation
62. According to the principles of _____ a particular behaviour (e.g. lying) is more likely to be repeated when it has been favourably productive in the past (e.g. avoiding punishment).
- a) Classical conditioning
 - b) Operant conditioning
 - c) Observational learning
 - d) Sign learning
63. The acquisition of new information, concepts or forms of behaviour through exposure to others and the consequences they experience is called _____
- a) Insightful learning
 - b) Sign learning
 - c) Observational learning
 - d) Experiential learning

64. Impairments in motivation can be seen in patients suffering from _____ due to damage to the networks controlling the sympathetic nervous system
- a) autonomic hyperarousal
 - b) autonomic hypoarousal
 - c) reactivity to stress
 - d) none of the above
65. Select from the alternatives, the Abraham Maslow's need hierarchy which is provided in right order _____
- a) Safety, Physiological, Esteem, Belongingness, Self-actualization
 - b) Esteem, Belongingness, Safety, Physiological, Self-actualization
 - c) Physiological, Safety, Belongingness, Esteem, Self-actualization
 - d) Safety, Esteem, Physiological, Belongingness, Self-actualization
66. A criminal not only remembers the event (crime) but also some aspects of the crime scene. This is best described as his _____ memory.
- a) iconic
 - b) echoic
 - c) episodic
 - d) semantic
67. Inability to store new long-term memories is called
- a) anterograde amnesia
 - b) retrograde amnesia
 - c) hypermnesia
 - d) forgetting
68. Which of the following is not a factor in the Structure-of-Intelligence Model (Guilford, 1967)?
- a) Operations
 - b) Response latency
 - c) Contents
 - d) Products
69. _____ suggested that measures of reaction time is strongly related to IQ score, which supported the assumption that speed of information processing is the essential basis of 'g' factor.
- a) Hans Eysenck
 - b) Francis Galton
 - c) Charles Spearman
 - d) Raymond Cattell

70. Which of the following is the final stage (characteristic) in Kohlberg's theory of Moral development?
- a) Personal morality based on abstract principles
 - b) Adheres to social contract when it is valid
 - c) Nice behaviour in exchange of future favour
 - d) Obedience to authority
71. _____ involves comparison of at least one naturally occurring independent variable to estimate its causal relationship with at least one dependent variable without making random allocation to different conditions of the independent variable
- a) Experimental study
 - b) Quasi-experimental study
 - c) Cohort study
 - d) Randomized Control Trial
72. _____ requires the study of test scores in relation to not only to variables that the test is intended to assess, but also in relation to the study of those variables that have no relationship to the domain underlying the instrument.
- a) Criterion-based validity
 - b) Face validity
 - c) Construct validity
 - d) None of the above
73. Which of the following is not a standard neuropsychological test?
- a) Category Test
 - b) Embedded Figures Test
 - c) Trail Making Test
 - d) Finger Oscillation Test
74. *Actus reus* refers to _____
- a) Finding someone guilty due to wrongful purpose in a crime
 - b) Finding someone guilty due to wrongful deed in a crime
 - c) Finding someone guilty due to presence in the crime scene
 - d) Finding someone guilty due to wrongful confession in a crime
75. Who developed a brain finger printing, a neuropsychological method of interrogation in India called Brain Electrical Oscillation Signature Profiling?
- a) R. C. Tripathy
 - b) Malavika Kapur
 - c) C. R. Mukundan
 - d) S. L. Vaya

76. _____ occurs when Internet use becomes the primary activity in an user's life and dominates thinking, feelings and behaviour
- a) Tolerance
 - b) Salience
 - c) Contextualization
 - d) Task-cued behaviour
77. A growing fraction of human thoughts, behaviours, and preferences leave digital traces that can be easily recorded, stored and analyzed. This information is called _____
- a) Digital blueprints
 - b) Digital footprints
 - c) Usage logs
 - d) Language data
78. Which theory of hypnosis suggests that hypnotized individuals enter an altered state of consciousness in which consciousness is divided?
- a) Neo-dissociation
 - b) Socio-cognitive
 - c) Habituation
 - d) Stimulus Deprivation
79. People often revise their memories, saying that how an event turned out was what they expected all along. This is called _____
- a) hindsight bias
 - b) foresight bias
 - c) expectancy bias
 - d) consolidation of memory
80. Identify the lie detection test which is based on examination of voice under stress
- a) Voice Lab Functional Test
 - b) Layered Voice Analysis
 - c) Laryngeal Video Myography
 - d) None of the above
81. Which of the following is considered as a method of brain fingerprinting?
- a) Functional Magnetic Resonance Imaging
 - b) Positron Emission Tomography
 - c) CQT Polygraph Testing
 - d) ERP-based GKT procedure
82. Navaco (1975) developed an anger management programme which was based on ____
- a) Suppression of anger
 - b) Catharsis
 - c) Cognitive-behavioural approach
 - d) Information-processing approach

83. Which of the following forms of violence occurs when the injury of an individual is secondary to the acquisition of some other goals?
- a) Reactive
 - b) Instrumental
 - c) Observational
 - d) Hostile attribution
84. The Guilty Knowledge Test (GNT) is also called _____ Test for criminal profiling.
- a) Projective
 - b) Psychophysiological
 - c) Concealed Information
 - d) Reflectivity Confirmation
85. Which of the following characteristic defines a serial killer?
- a) Multiple victims over a variety of locations and has a cooling off period between kills
 - b) Multiple victims over a variety of locations all occurring within a single period of time.
 - c) Multiple victims intentionally killed in a single location and single period of time
 - d) None of the above
86. Which of the following is not a drug-related crime?
- a) Possession of drugs
 - b) Manufacturing of drugs
 - c) Consumptions of drugs
 - d) Distribution of drugs
87. Which of the following statement about Admissibility of Forensic Report in Court (Section 293 Cr.PC) is incorrect?
- a) The Public Analyst's reports of qualitative nature, is acceptable as evidence in the court of law
 - b) It is not obligatory upon a Court to use the report of the experts mentioned in Section 293 as evidence in every case
 - c) A Court is not bound to accept and act on a report as conclusive evidence of its contents
 - d) The Court just gives its authority to the conclusion of the Public Analyst and this cannot be the position in law
88. A false positive in a psychological test for lie detection refers to a result that _____
- a) incorrectly indicate that a particular condition or attribute is absent
 - b) incorrectly indicate that a particular condition or attribute is present
 - c) correctly indicate that a particular condition or attribute is absent
 - d) correctly indicate that a particular condition or attribute is present

89. An instrument was developed for measuring public attitude toward reoffenders. The following categories of responses were expected from the respondents: strongly agree (SA), agree (A), undecided (U), and strongly disagree (SD). What kind of scaling procedure was used?
- a) Likert-type scale
 - b) Thurstone-type scale
 - c) Gutman-type scale
 - d) None of the above
90. In psychological assessment, _____ refers to the probability that a person without a particular attribute will be correctly identified as not having that attribute
- a) specificity
 - b) sensitivity
 - c) probability sampling
 - d) item discrimination
91. In forensic investigation VIPER is used as a _____
- a) technique of interrogation of the suspect
 - b) method of eye-witness testimony
 - c) lie detection technique
 - d) security surveillance system
92. _____ variables are those, which are not under control of the criminal justice system, and can be manipulated in research (e.g. exposure duration, age or race of the witness, presence of a weapon) and cannot be controlled in actual witnessed incident.
- a) estimator
 - b) system
 - c) predictor
 - d) antecedent
93. Which of the following is not a component or major resource from which mental state of the person at the time of murder can be assessed through?
- a) interview with the accused
 - b) inventory used for forensic psychological assessment
 - c) examination of the murder weapon
 - d) third party information
94. Which of the following characteristics is not considered as the prototype of insanity but may systematically influence jurors' case-relevant attitudes?
- a) severe mental disability
 - b) moral insanity
 - c) vulnerable mental state
 - d) bizarreness crime

95. An abbreviation NGRI used for an individual who at the time of the crime was found to be so mentally disordered that he/she should not be held responsible for the act. The abbreviation stands for
- a) Non Guilty For Reason of Insanity
 - b) Not Guilty by Reasoning Ability
 - c) Not Guilty by Reason of Insanity
 - d) Not Guilty under Reason of Insanity
96. _____, a student of Wilhelm Wundt and a professor at Harvard University, is generally credited with founding the field of forensic psychology.
- a) John H. Wigmore
 - b) Hugo Münsterberg
 - c) Elizabeth Loftus
 - d) William Marston
97. The WAIS-IV intelligence test includes the subtests which are sorted into four indexes. Which of the following indexes are included?
- a) Performance test, verbal comprehension, perceptual reasoning, and processing speed
 - b) Digit span, Digit symbol-coding, Working memory and Verbal Comprehension
 - c) Verbal comprehension, perceptual reasoning, working memory and processing speed
 - d) Block Design, Digit span, Working memory and verbal comprehension
98. Victims of child abuse often completely forget about the memories related to the abuse making those memories completely inaccessible to the conscious mind. What is this defense mechanism called?
- a) Repression
 - b) Suppression
 - c) Reaction Formation
 - d) Projection
99. The device that detects breathing patterns is called
- a) Sphygmomanometer
 - b) Electrodermal meter
 - c) Manometer
 - d) Pneumograph
100. A line disappears at an angle behind a solid figure, reappearing at the other side at what seems to be an incorrect position. This is called _____ illusion
- a) Ponzo
 - b) Poggendorf
 - c) Muler-Lyer
 - d) Horizontal-vertical

101. The _____ was proposed by Easterbrook (1959) to explain why a witness may focus on the weapon rather than other details. The hypothesis suggests that when emotional arousal increases, attentional capacity decreases. With limited attentional capacity, central details are more likely to be encoded than peripheral details.

- a) Threat-focused hypothesis
- b) Fear-arousal hypothesis
- c) Attentional-capacity hypothesis
- d) Cue-utilization hypothesis

102. The NHRC has issued guidelines regarding administration of a Polygraph test to suspects. Which of the following propositions are true as directed by the guidelines?

- (i) The test should be administered with the consent of the subject
 - (ii) The examiner can overrule the consent of the subject on the orders of the court
 - (iii) The subject who consents to the test, should be informed of the legal implications regarding the test
 - (iv) The judge considers the facts such as the length of detention and the protocol of interrogation
 - (v) The words spoken during a polygraph test can be accounted as confessions
- a) Only (i), (iii) & (iv) are true
 - b) Only (i), (ii) & (iv) are true
 - c) Only (i), (iii), (iv) & (v) are true
 - d) All of the above are true

103. _____ is a colloquialism for misrepresenting scientific evidence through selective testing, selective reporting, biased interpretation, overstatement of the significance of test results, the ignoring or withholding of results inconsistent with a biased viewpoint, inappropriate collection and testing of evidence, and fabrication of data.

- a) Evidence Shaping
- b) Fraud
- c) Intellectual dishonesty
- d) Poor credibility

104. In any Experimental design, any independent variable is called a/an _____

- a) dimension
- b) level
- c) factor
- d) element

105. Which of the following statements about Narco-analysis given below is incorrect?

- a) Administration of Narco-analysis tests against the will of the accused is violative of Article 20 (3) of the Constitution.
- b) Narco-analysis should be used along with other methods of investigation and questioning the suspects.
- c) During narco-analysis, the accused fails to exercise conscious control over his/her the responses.
- d) Any information or material that is subsequently discovered with the help of voluntary administered test results (e.g. narcoanalysis) cannot be admitted, in accordance with Section 27 of the Evidence Act.

106. The Brain Electrical Oscillation Signature (BEOS) technique requires _____ trial analysis using pre-probe segment as the baseline for analysis of the response

- a) Single
- b) Double
- c) Triple
- d) Quadruple

107. Which of the following is not the role of a polygraph examiner?

- a) Consulting the senior attorney to determine the questions to be asked to the accused
- b) Hooking the witnesses and suspects up to the polygraph, and asking them questions.
- c) Compare the findings with psychological test
- d) Create a written report to deliver to judges and attorneys based on the results of the exam.

108. Which of the following facts about Modified General Question Technique (MGQT) is not correct?

- a) It is a modern variant of the family of Comparison Question Techniques (CQT) and the Zone Comparison Technique.
- b) This has a high correlation with many factors in Minnesota Multiphasic Personality Questionnaire (MMPI)
- c) Conforms to generally accepted valid principles for psychophysiological detection of deception (PDD) test construction
- d) Multivariate analysis found no significant difference between total and sub-total scores of the laboratory sample and those from sample of field investigation cases, using the same technique

109. Which of the following programmes are covered under the 'National Food Security Act, 2013'?

1. Mid-day Meal Scheme
 2. Integrated Child Development Scheme
 3. Public Distribution System
 4. Buffer Stock Management
- a) 2,3 & 4 only
 - b) 1,3 & 4 only
 - c) 1,2 & 3 only
 - d) 1,2,3,4

110. Consider the following statements in connection with Psychoanalytical feminists:

- (1) They do not hold biological factors as responsible for the construction of sexual difference.
- (2) They analyse both Psychological process as well as biological factors responsible for the construction of sexual difference
- (3) They explore hidden dynamics at work in personal, inter-personal and social relations and the unconscious dynamics that shape the way we think, feel and act in the world.
- (4) Freudian Psychoanalysis does not under the category of Psychoanalytical Feminism.

Which of the statements given above are correct?

- a) 1 and 2
- b) 3 and 4
- c) 2 and 3
- d) 1 and 3

111. Water hyacinth is an example of:

- a) Endangered species
- b) Endemic species
- c) Extinct species
- d) Invasive species

112. Consider the following statements regarding "*National Cyber Coordination Center (NCCC)*"

1. It is an operational cyber security and e-surveillance agency in India
2. It comes under the Ministry of Information and Broadcasting.
3. It comes under the Ministry of electronics and information technology (MeitY)
4. It is a multi-stakeholder agency

Which of the above statements are correct?

- a) 1 and 2
- b) 1 and 3
- c) 1,3 and 4
- d) 1,2 and 4

113. Who was the Cartographer who demarcated the borders of India and Pakistan?

- a) Radcliffe
- b) Mac Mohan
- c) Mountbatten
- d) P. Lawrence

114. Who among the following was the French general in the army of Maharaja Ranjit Singh?

- a) Jean Francois Allard
- b) Colonel John Holmes
- c) Colonel Alexander Gardner
- d) Sir John Hough

115. Who amongst the following headed the 1946 Cabinet Mission?

- a) Hugh Gaitskell
- b) Lord Pethick-Lawrence
- c) Sir John Simon
- d) None of the above

116. Consider the following statements

- 1) The Brahmaputra is the 9th largest and 15th longest river in the world.
- 2) In Arunachal Pradesh, the river Bhramputra is known as Siang/Dihang.
- 3) The river enters Arunachal Pradesh near Gelling where it is known as the Siang or Dihang.
- 4) The total length of the Siang River is 350 km till its point of confluence with the Dibang and Lohit rivers.

Which of the above statements are correct?

- a) 1 and 2 only
- b) 3 and 4 only
- c) 1, 2 and 3 only
- d) All of the above

117. Consider the following statements regarding 80th Golden Globes Awards held recently (2023):

- 1. The award for Best Motion Picture-Drama was won by "The Banshees of Inisherin"
- 2. The award for Best Original Song, Motion Picture was won by "Naatu Naatu" from the film "RRR".
- 3. The award for Best Director, Motion Picture was won by Steven Spielberg, for the film "The Fabelmans"

Which of the above statements is/are correct?

- a) 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

118. In which month of the year, Road Safety Week is observed by Ministry of Road Transport & Highways, Government of India?
- a) November
 - b) December
 - c) January
 - d) February
119. A frog jumps out of a dried well 4.5 meters deep with slippery walls. Every time the frog jumps 30 centimetres, slides down 15 centimetres. What is the number of jumps required for the frog to come out of the well?
- a) 28
 - b) 30
 - c) 29
 - d) 31
120. This question is based upon the information given below. Study the information carefully and then choose the correct alternative to answer the question.
- Five friends A, B, C, D and E are sitting on a bench.
- (1) A is sitting next to B.
 - (2) C is sitting next to D.
 - (3) D is not sitting with E.
 - (4) E is on the left end of the bench.
 - (5) C is on second position from the right.
 - (6) A is on the right side of B and to the right side of E.
 - (7) A and C are sitting together.
- Where is A sitting?
- a) Between B and D
 - b) Between D and C
 - c) Between B and C
 - d) Between C and E

SPACE FOR ROUGH WORK