



UNIVERSITY OF THE PUNJAB
M.A./M.Sc. Part – I Annual Examination – 2022

Roll No.

Subject: Applied Psychology (New Course)

Paper: I (Schools & Perspective in Psychology)

Time: 3 Hrs. Marks: 100

NOTE: Attempt any FIVE questions. All questions carry equal marks.

1. Make a detailed comparison between Structuralism and Functionalism? (20)
2. Write basic postulates of humanistic psychology? (20)
3. Discuss Gestalt Principles in detail? (20)
4. What is the difference between the Social Cognitive Perspective and the Behavioral Perspective? (20)
5. Discuss the Significance of Islamic perspective in the light of Muslim scholar (20)
6. Discuss the role of Heredity in biological perspective (20)
7. Discuss the major difference between Classical Psycho-analysis and Neo-Freudians School of thought (20)
8. Discuss and compare the social learning theory given by Bandura and Mahony and Mischel (20)



UNIVERSITY OF THE PUNJAB

M.A./M.Sc. Part – I Annual Examination – 2022

Subject: Applied Psychology (New Course)

Paper: II (Research Methods and Research Design)

Time: 3 Hrs. Marks: 70

Roll No. in Fig.

Roll No. in Words.

Attempt this Paper on this Question Sheet only.

Division of marks is given in front of each question.

This Paper will be collected back after expiry of time limit mentioned above.

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Signature of Supdt.:

NOTE: Attempt all questions on question paper. Cutting, rubbing, overwriting, rewriting and double marking is not allowed. There is no negative marking.

Q.1. Circle "T" for true statement and "F" for false statement

(10x1=10)

- Science does not bring change in existing knowledge.
- In conceptual definition, a term is defined by using synonymous terms.
- If we are studying cause and effect, dependent variable is 'cause'.
- Sometimes it is not possible to eliminate an extraneous variable.
- Deduction is a process of making hypothesis from general to specific.
- In the beginning, focus group must be homogenous.
- Matched group design can be used with large samples.
- Quasi experimental designs are same as true experimental designs.
- In factorial designs, more than two variables can be studied simultaneously.
- In convenient sampling researcher has little control over representativeness of sample.

True	False
True	False
True	False
True	False
True	False
True	False
True	False
True	False
True	False
True	False

Q.2. Circle the correct option

(20x1=20)

- The first step while using scientific method is to
 - State the problem
 - Make hypothesis
 - Define the terms
 - Collect the data
- Scientists often prefer to conduct the experiments for which apparatus is easily and frequently available. Because of this limitation, science is called _____.
 - Agnostic
 - Opportunistic
 - Incomplete
 - Tentative
- When a researcher repeats some aspects of a previous research, it is called _____.
 - Replication
 - Exact replication
 - Partial replication
 - Extension
- A hypothesis must be
 - Parsimonious
 - Testable
 - Conceptually clear
 - All of these
- _____ scale of measurement has properties of all other scales also.
 - Nominal
 - Ordinal
 - Interval
 - Ratio
- Which is not a method of probability sampling?
 - Cluster sampling
 - Stratified sampling
 - Systematic random sampling
 - Quota sampling
- In grounded theory, analysis is done through _____.
 - Memoing
 - Coding
 - Notes
 - All of these
- It is necessary for a researcher to select only those participants who are willing to participate. This ethical principal is called _____.
 - Institutional approval
 - Risk/benefit ratio
 - Informed consent
 - Debriefing
- Detail of sample and sampling strategy is mentioned in
 - Introduction
 - Method
 - Result
 - Discussion
- When a theory explains a concept using easy and simple terminology, it is called _____.
 - Serendipity
 - Parsimony
 - Falsification
 - Simplicity

- xi. In _____ research design, different samples from same population are studied.
 - a) Cross sectional
 - b) Successive independent samples
 - c) Longitudinal
 - d) All of these
- xii. If a factorial design experiment has three independent variables and each variable has two levels, possible condition of this experiment will be _____.
 - a) 6
 - b) 8
 - c) 12
 - d) 27
- xiii. Which of the following diagrams show repeated pre-tests and repeated post-tests?
 - a)

OOO	X	OOO
X	O1	O2
 - b)

XO	XO	XO
O1	X	O2
 - c)

XO	XO	XO
O1	X	O2
 - d)

O1	X	O2
XO	XO	XO
- xiv. If a researcher wants to control aggressive and shy behavior of a child using single case experimental design, _____ is best.
 - a) Multiple baseline design across subjects
 - b) Multiple baseline design across behaviors
 - c) Multiple baseline design across situations
 - d) Multiple baseline design across conditions
- xv. If a researcher has to study the effect of light and temperature on work performance, the research design used will be
 - a) Random group design
 - b) Repeated measure design
 - c) Factorial design
 - d) Natural group design
- xvi. Variable control is a key to increase _____ of a research.
 - a) Validity
 - b) Internal validity
 - c) External validity
 - d) Reliability
- xvii. A researcher is measuring attitude of students towards Social media through survey method. A sample of 100 students is selected after every year and fill the same questionnaire regarding social media. It will be
 - a) Cross sectional
 - b) Successive independent samples
 - c) Longitudinal
 - d) Independent sample design
- xviii. The effect of subject variables can be studied through
 - a) Independent group design
 - b) Random group design
 - c) Matched group design
 - d) Natural group design
- xix. Single case experimental design
 - a) Is more controlled than single case study method
 - b) Can be used with few subjects
 - c) Has a problem of external validity
 - d) All of these
- xx. Which statement is not true about a theory?
 - a) It organizes knowledge
 - b) It defines the concept
 - c) It explains relationship between concepts.
 - d) It cannot be falsified

Q.3. Give short answers:

(10 X 4 =40)

i. Define theory.

ii. How reporting of science and non-science is different?

iii. Write four characteristics of hypothesis.

iv. What is the difference between independent and dependent variable?

v. Define quasi experimental designs.

vi. In the context of factorial design, define 'levels' and 'conditions'.

- vii. Write two disadvantages of longitudinal design.

- viii. What is block randomization?

ix. What is the difference between stratified sampling and quota sampling?

x. Define informed consent.



UNIVERSITY OF THE PUNJAB

M.A./M.Sc. Part – I Annual Examination – 2022

Subject: Applied Psychology (New Course)

Paper: III (Psychological Assessment)

Time: 3 Hrs. Marks: 70

Roll No. in Fig.

Roll No. in Words.

Attempt this Paper on this Question Sheet only.

Division of marks is given in front of each question.

This Paper will be collected back after expiry of time limit mentioned above.

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Signature of Supdt.:

Q.1. Encircle the best option.

(30x1=30)

1. Psychological tests are used to
 - a. help make decisions about people
 - b. promote self-understanding
 - c. measure psychological constructs
 - d. all of the above
2. The Army Alpha was
 - a. dependent on the ability to read and write
 - b. can be used by the persons who are illiterate
 - c. an early index of reliability developed by military psychologists
 - d. none of the above
3. The first self-report test of personality was developed by
 - a. Murray
 - b. Simon
 - c. Terman
 - d. Woodworth
4. Human judgment is influenced by
 - A personal bias
 - B halo effects
 - C errors of central tendency
 - D all of the above
5. The Minnesota Multiphasic Personality Inventory – II is an example of a _____ test.
 - a. criterion-referenced
 - b. performance
 - c. self-report
 - d. self-scoring
6. Norm development of psychological tests is done primarily to
 - a. protect the privacy of the test taker
 - b. aid in interpretation of the scores
 - c. make the scores more manageable
 - d. make the scores available for research
7. If a z score of 1.33 is obtained, we know that the person's raw score
 - a. is above average
 - b. is lower than the scores of most others on the test
 - c. is at average
 - d. falls at the 84th percentile
8. Test-retest reliability is sometimes referred to as
 - a. stability
 - b. consistency
 - c. long-term reliability
 - d. concurrent reliability
9. The concept of 'behavioural domain sampling' in the psychometric theory refers to
 - a. sampling persons from the population with whom a test may be used
 - b. sampling items from the population of possible items that could be used in a test
 - c. sampling tests from the population of tests available to measure a construct
 - d. sampling methods from the population that could be used to construct a test
10. A high coefficient alpha indicates that
 - A the test has high generalizability
 - B scores on the test are stable
 - C the test has high internal consistency
 - D the test has only one factor
11. In general the best reliabilities have been obtained with psychological tests in the
 - a. cognitive domain
 - b. personality domain
 - c. motivation domain
 - d. projective domain
12. Content validity
 - a. has no role in test development
 - b. is another name for construct validity
 - c. is relevant in developing achievement tests
 - d. was relied on by Binet and Simon in their work in test development

13. In validity the estimate of error is referred to as the
- standard error of the mean
 - standard error of estimate
 - standard error of measurement
 - standard error of the criterion
14. Which of the following the sub types of construct validity?
- convergent and discriminant validity
 - concurrent and predictive validity
 - standard error of measurement
 - standard error of the criterion
15. The Mental Measurements Yearbook is
- a catalogue of test reviews
 - a classification scheme of psychological tests
 - an encyclopedia of psychometrics
 - a handbook of good practice in assessment
16. Which of the following is a subtest of 'perceptual reasoning index' of the Wechsler Adult Intelligence Scale – IV?
- Letter-number sequencing
 - Digit span
 - Block Design
 - Coding
17. General aptitude tests are good measures of _____ abilities, whereas general achievement tests are good measures of _____ abilities
- crystallized; fluid
 - fluid; crystallized
 - cognitive; developmental
 - developmental; cognitive
18. Which one of the following factors is more related to *validity* of the test as compared to reliability?
- test length
 - test retest interval
 - guessing
 - content of questions
19. Concurrent validity is relevant to tests that are employed for
- diagnosis of existing status
 - prediction of future outcomes
 - both A & B
 - none of these
20. The right of an individual that recognizes his/her freedom to choose the extent to which he/she shares or withholds from others his attitudes or opinion is called
- Privacy
 - Confidentiality
 - Consent
 - Privilege
21. Raven's Progressive Matrices is an intelligence test that
- contains perceptual analogies in the form of a matrix
 - has 3 forms for different levels of difficulty
 - has minimal cultural item loading
 - all of the above
22. A normative sample is a group of people
- Who are mentally normal
 - Who belong to a special social class
 - Whose performance is used as reference
 - All of the above
23. Which of the following is NOT used in neuro-psychological testing:
- Bender Gestalt Test
 - Luria- Nebraska-battery
 - Differential Aptitude Test
 - Benton Visual Retention Test

24. MMPI was the product of collaboration between a Psychologist and a Psychiatrist naming _____ and _____.
- Hathaway and McKinley
 - Harris and Gough
 - Simon and Binet
 - Yerkes and Buck
25. Item difficulty analysis is appropriate for _____.
- MMPI
 - Draw a man test
 - Clinical test
 - Personality tests
26. Which of the following has validity subscales?
- Otis quick Scoring Mental Ability Test
 - Minnesota Multiphasic Personality Inventory
 - Graduate Record Examination
 - Differential Aptitude test
27. Which of the following is a test of typical performance?
- Personality test
 - Aptitude test
 - Graduate Record Examination
 - Differential Aptitude test
28. A *clerical speed and accuracy* test will be classified as a
- Personality test
 - Aptitude test
 - Achievement test
 - All of the above
29. TAT consists of ----- number of pictures in total.
- 20
 - 30
 - 31
 - 32
30. In which of the following, there are no chances of guessing?
- Matching items
 - True-false items
 - Multiple choice items
 - Completion items

Q.2. Encircle the correct option.

(10 x1=10)

- Group tests can be given individually. T / F
- Individual tests are time consuming. T / F
- Time limit is made short in projective tests. T / F
- WAIS is a group test. T / F
- Higher the standard deviation of the test, higher will be the reliability. T / F
- One's learning in particular subject or skill can be best described as aptitude. T / F
- In RISB, 120 score is considered the cut-off score. T / F
- Objective items demand a highly skilled scorer. T / F
- The behavior of a person changes if he/she is aware of the fact that he/she is being observed. This is called expectancy effect. T / F
- Test items should have high difficulty level. T / F

Q.3. Fill in the blanks.

(10 x1=10)

- Intelligence Quotient = _____ / _____ x 100.
- Stanine has the mean value of _____ and standard deviation _____.
- The first group intelligence tests were _____ and _____.
- A specification chart of test items and content is called test _____.
- The tests which can be used for people belonging to different cultures are called _____ tests.
- Binet Simon scale was originally published in _____ language.
- A test was divided into two halves for the purpose of reliability estimation. This type of reliability is called _____ reliability.
- Wisconsin Card Sorting Technique is used for _____ testing.
- MMPI stands for _____.
- To assess the power of expression, the best type of items is _____.

(10x1=10)

A	B	C
1. CAT	a. Bennett, Seashore & Wesman	
2. RISB	b. David Wechsler	
3. HTP	c. Rapaport, Gill and Schafer	
4. MMPI	d. Raymond, B. Cattell	
5. TAT	e. J. C. Raven	
6. WAIS	f. Hathaway & Mckinley	
7. 16PF	g. J. N. Buck	
8. RPM	h. Henry A. Murray	
9. WAT	i. J. B. Rotter	
10. DAT	j. Leopold Bellak	

(2 x 5 = 10)

i. Percentile norms.

[illegible]

ii. Eysenck Personality Questionnaire.

[illegible]



UNIVERSITY OF THE PUNJAB

M.A./M.Sc. Part – I Annual Examination – 2022

Subject: Applied Psychology (New Course)

Paper: IV (Abnormal Psychology)

Time: 1 Hrs. Marks: 40

Roll No. in Fig.

Roll No. in Words.

Attempt this Paper on this Question Sheet only.

Division of marks is given in front of each question.

This Paper will be collected back after expiry of time limit mentioned above.

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Signature of Supdt.:

Q.1. Encircle one correct answer. Overcutting is not allowed.

(10x1=10)

- 1. Which of these models of psychopathology would suggest that psychological disorders are a result of dysfunctional thinking patterns?**
 - a. Medical model
 - b. Cognitive model
 - c. Biological model
 - d. Behavioral model
- 2. Comorbidity explains the notion that**
 - a. People suffering with the same psychopathology die at the same time.
 - b. Sufferers exhibit a chronic fear of death.
 - c. Depression always happens in the winter.
 - d. Differentially defined disorders can co-occur.
- 3. Which of these disorders are a group of conditions with onset in the developmental period?**
 - a. Neurocognitive disorders
 - b. Neurodevelopmental disorders
 - c. Eating disorders
 - d. Elimination disorders
- 4. What is trephination?**
 - a. Using of herbs
 - b. Calling holy spirits
 - c. Removing the spleen
 - d. Making a hole in the skull
- 5. Someone remaining preoccupied with fears of having a serious illness, but Somatic symptoms are not present or if present they are mild, indicates**
 - a. Illness anxiety disorder
 - b. Somatic symptoms disorder
 - c. Functional Neurological symptom disorder
 - d. Somatoform disorder NOS
- 6. A chronic sleep disorder characterized by overwhelming daytime drowsiness and sudden attacks of sleep is called**
 - a. Narcolapsy
 - b. Cataplexy
 - c. Nightmare Disorder
 - d. Sleep terrors
- 7. According to DSM 5, lifetime experience of at least one episode of major depression and at least one hypomanic episode is called**
 - a. Bipolar I disorder
 - b. Bipolar II disorder
 - c. Cyclothymic disorder
 - d. Substance/medication-induced bipolar
- 8. Diminished interest in almost all activities for same two weeks is key symptom of**
 - a. Mood dysregulation disorder
 - b. Major depressive disorder
 - c. Persistent depressive disorder
 - d. Dysthymia
- 9. Which of the following is NOT a symptom of Mania?**
 - a. Decreased need for sleep
 - b. Decreased appetite
 - c. Distractibility
 - d. Increase in goal-directed activity
- 10. Recurrent pulling out of one's hair resulting in hair loss is feature of**
 - a. Body dysmorphic disorder
 - b. Hoarding disorder
 - c. Trichotillomania
 - d. Excoriation

Q.2. Fill in the blanks.

(10x1=10)

1. In epidemiology, the proportion of a particular population found to be affected by a disorder/ condition at a specific time, is called _____.
2. The concept that imbalance of four fluids (humors) cause abnormality was introduced by _____.
3. A set of questions and observation that evaluates client's awareness, orientation, insight and appearance etc. is called _____ examination.

4. Delusions, hallucinations, disorganized thoughts, and disorganized speech are _____ symptoms of schizophrenia.
5. Gradually increased intensity of shaking, stiffness, and difficulty with walking, balance, and coordination is main symptom of _____.
6. DSM-IV diagnosis of hypochondriasis is labeled in DSM 5 as _____.
7. A sham treatment that the participant in an experiment believes to be genuine is called _____ therapy.
8. Having a feeling that one's actual gender identity is different from his assigned gender is manifestation of _____.
9. Inability to feel pleasure in normally pleasurable activities is called _____.
10. Bringing up the previously swallowed food repeatedly leads to diagnose _____.

Q.3. Mark each Statements either True or False

(10x1=10)

1. Death of close friend due to natural causes is trauma. T/F
2. Sensory experiences that appear in the absence of any stimulus are called delusions. T/F
3. Extremely elevated mood and grandiose ideas are key symptoms of manic episode. T/F
4. Individuals with somatic symptoms related disorders have their initial presentation mainly in primary care and medical settings. T/F
5. A genetic disorder caused by the presence of all or part of a third copy of chromosome 21 is called mental retardation. T/F
6. Getting sexual gratification by inflicting injuries to opposite partner is Masochism. T/F
7. A speech disorder that involves frequent and significant problems with normal fluency and flow of speech is called stuttering. T/F
8. The term performance anxiety refers to fear of failing to achieve a sustained erection. T/F
9. The disruptive, impulse-control, and conduct disorders all tend to be lower in males than in females. T/F
10. In agoraphobia social situations are avoided or endured with extreme fear or anxiety. T/F

Q.4. Write full form of these Abbreviations?

(10x1=10)

1. SAD _____
2. ICD _____
3. ADHD _____
4. PET _____
5. OCD _____
6. EEG _____
7. SSRI _____
8. MRI _____
9. WHO _____
10. CBT _____

**ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED***Note: Attempt ALL questions.***Q.5. Match the Column.****(5)**

A	B	C
Emil Kraepelin	Psychoanalysis	
Friedrich Mesmer	Father of American psychiatry	
Sigmund Freud	Hysterical disorders	
Philip Pineal	Dementia praecox	
Benjamin Rush	Humane psychological approach	

Q.6. Give short answers**(5x3=15)**

1. Intellectual disability
2. Criteria of abnormal behavior
3. Ego defense mechanisms by Freud
4. Tic Disorder
5. Catatonia

Q.7. Differentiate the following.**(5x4=20)**

1. Incidence and prevalence
2. Agoraphobia and social anxiety disorder
3. Schizophrenia and schizoaffective disorder
4. Neurocognitive and Neurodevelopmental disorder
5. Anorexia nervosa and Bulimia nervosa

Q.8. Give a detailed note on the following.**(2x10=20)**

1. Describe Schizophrenia spectrum and other psychotic disorders.
2. Write a detailed note on research methods in abnormal psychology.



UNIVERSITY OF THE PUNJAB

M.A./M.Sc. Part – I Annual Examination – 2022

Subject: Applied Psychology (New Course)

Time: 1 Hrs. Marks: 40

Paper: V (Statistics in Psychology)

Roll No. in Fig.

Roll No. in Words.

Signature of Supdt.:

Attempt this Paper on this Question Sheet only.

Division of marks is given in front of each question.

This Paper will be collected back after expiry of time limit mentioned above.

Q.1. Encircle one correct answer. Overcutting is not allowed. (20x1=20)

1. Which of the following describes mean?
 - a. 50th percentile
 - b. balancing point
 - c. 2nd quartile
 - d. all of the above
2. Which of the following is NOT true about statistics?
 - a. It can be inferential only
 - b. it analyzes quantitative data
 - c. It summarizes the data
 - d. it is useful in research
3. Which of the following is considered the best measure of dispersion?
 - a. Range
 - b. Quartile deviation
 - c. Mean deviation
 - d. Standard deviation
4. Which measure of central tendency is applicable when data is on Nominal scale?
 - a. Mean
 - b. Median
 - c. Mode
 - d. All of the above
5. Rejecting the null hypothesis when it is false is
 - a. Type I error
 - b. Type II error
 - c. Correct decision
 - d. incorrect decision
6. The median of the following set of data 12, 18, 13, 11, 12, 15, 17 is
 - a. 11
 - b. 11.5
 - c. 13
 - d. 12
7. If mean is greater than mode, the distribution is
 - a. Negatively skewed
 - b. Positively skewed
 - c. Symmetrical
 - d. Normal
8. To represent marks of students in a class test, the appropriate graph will be
 - a. Pictograph
 - b. Bar diagram
 - c. Histogram
 - d. Pie chart
9. Most commonly deviations of scores are taken from
 - a. Mean
 - b. Median
 - c. Mode
 - d. extreme scores
10. A variable that can take infinite number of values between any two observed values, is called
 - a. Discrete
 - b. Continuous
 - c. Quantitative
 - d. independent
11. Time taken in solving a puzzle' is an example of
 - a. Nominal scale
 - b. Ordinal scale
 - c. Interval scale
 - d. Ratio scale
12. A frequency distribution can be converted into relative frequency distribution by adding the column
 - a. Cumulative frequency
 - b. Real limits
 - c. Proportions
 - d. Mid points
13. If a score is equal to the mean, its z score will be
 - a. A positive value
 - b. A negative value
 - c. Zero
 - d. Can not be determined
14. Which of the following is parametric?
 - a. Chi square
 - b. ANOVA
 - c. Wilcoxon Signed ranks
 - d. Spearman correlation
15. When applying parametric statistics, a result will be considered significant if
 - a. calculated value is smaller than the table value
 - b. p is smaller than alpha
 - c. calculated test value is greater than the alpha value
 - d. all of the above

16. In regression equation, b is
- Regression coefficient
 - y-intercept
 - Constant
 - Predicted value
17. Which of these following distributions has a pair of degrees of freedom?
- Z
 - F
 - t
 - r
18. Analysis of Variance (ANOVA) is used to check if -
- Two means are different from each other
 - Three or more means are different from each other
 - Three or more variances are different from each other
 - Three or more variances are equal or not
19. If null and alternate hypothesis are $H_0 : \mu = 16$ and $H_1 : \mu > 16$, it is appropriate to use
- Two tailed test
 - Right tailed test
 - Left tailed test
 - all of the above
20. Chi square test of goodness of fit compares
- Means
 - Variances
 - Number of categories
 - Frequencies

Q.2. Mark each Statements either True or False

(10x1=10)

- A negative correlation means that if one variable decreases, other also decreases. T / F
- A sample is a subset of population. T / F
- Pearson correlation is used for ordinal scale/ranked data. T / F
- Regression line is called the least fitting line. T / F
- If the X and Y both variables increase, the coefficient of correlation will be between 0 and +1. T / F
- Mann Whitney U test is used to compare two samples. T / F
- Variance is square root of standard deviation. T / F
- Mean is affected by change of origin and change of scale. T / F
- A parametric test is applied when data is on ordinal scale. T / F
- To compare if semester one students of a department performed on average better than semester 4 students of the same department, a paired samples t test will be used. T / F

Q.3. Fill in the Blanks.

(10x1=10)

1. The mode is the value that occurs _____ frequently in the distribution.
2. The distance between the lowest and the highest score in the data is called _____.
3. Mean of standard normal distribution has a value of 0 and standard deviation has a value of _____.
4. In a normal distribution, the area between ± 3 SD is _____ %.
5. Z scores express scores in terms of deviation of scores taken from _____.
6. Regression that deals with one DV and more than one IV is called _____ regression.
7. The branch of statistics that deals with organizing, summarizing and presenting data is called _____ statistics.
8. The numerical value computed from a sample is referred to as _____.
9. A value that divides data into two equal halves is called _____.
10. A chart that is constructed by drawing areas while calculating degrees out of 360, is called _____.



UNIVERSITY OF THE PUNJAB

M.A./M.Sc. Part – I Annual Examination – 2022

Subject: Applied Psychology

Paper: V (Statistics in Psychology)

Roll No.

Time: 2 Hrs. Marks: 60

ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

Note: Attempt any FOUR questions. All questions carry equal marks.

Q 4. A) A psychologist conducted a study to find relationship between creativity and academic performance. A random sample of 6 people was obtained and creativity test scores and GPAs were obtained. Find Pearson correlation between the variables. (10 marks)

Creativity	5	8	5	6	9	4
GPA	2.5	4.0	2.5	3.0	3.7	2.0

B) What are the properties of normal distribution? (5 marks)

Q5. A) Two independent groups of individuals, one with agoraphobia and other without agoraphobia, reported how often they had ventured out in the past month. Find if there is any significant mean difference in number of trips participants take at $\alpha = .05$. (10 marks)

With agoraphobia	Without agoraphobia
3	11
3	8
2	9
0	7
0	4
2	8
3	3

B) Write down differences between independent and repeated measures t test. (5 marks)

Q6. A) For the following set of scores, find regression coefficient (b). (10 marks)

X	7	4	6	4	5	5
Y	12	3	5	6	7	6

B) Write down steps in hypothesis testing. (5 marks)

Q7. A) Define critical region and level of significance. (4 marks)

B) Define effect size. Name the effect sizes used with t test and ANOVA. (6 marks)

C) What are the differences between parametric and non-parametric tests? (5 marks)

Q8. A) What are the differences between one way and two-way ANOVA? (3 marks)

B) Find mean, median and mode for the following set of data. (12 marks)

X	5	6	7	8	9	10
f	1	3	5	2	2	3