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## Entry Test Sample for MS in Genetics Program

### Weightage Distribution:

Section No.	Section Name	Weight
I	English	25%
II	Quantitative Ability	25%
III	Subjective Knowledge	50%

### Section No. I - English

#### Syllabus:

1. Analytical Ability
  - a) Logical Reasoning (5%)
  - b) Analytical Reasoning (5%)
2. Verbal Ability
  - a) Sentence Completion (Grammar) (5%)
  - b) Analogy (5%)
  - c) Antonyms (5%)

#### *Sample Test Questions*

1. "A meadow in springtime is beautiful, even if no one is there to appreciate it."  
This statement would be a logical opposite to which of the following claims?
  - A. People will see only what they want to see.
  - B. Beauty exists only in the eyes of the beholder.
  - C. Beauty does not depend on seasons.
  - D. The greatest pleasure available to mankind is the contemplation of beauty.
2. A map representing countries R, S, W, X, Y and Z is to be drawn. Adjacent countries cannot have the same color in the map. The countries adjacent to each other are as follows:
  - A. Each of R, S, X and Y is adjacent to W.
  - B. X is adjacent to Y.
  - C. Each of R and S is adjacent to Z.

Which of the following is a pair of countries that can be the same color?

- A. R and S                      B. S and W                      C. W and X                      D. X and Y

3. Many surveys \_\_\_\_\_ out the idea that effective communication is essential for success and promotion in every field.

- A. are bearing B. should have borne C. has borne D. have borne

4. IMAGINE : IMAGINATION

- A. Therapy : Thermometer                      C. Oblivion : Obvious  
B. Bowl : Bowdlerize                              D. Liturgy : Literature

5. Choose the lettered word or phrase that is most nearly opposite in meaning to the word DISINTEGRATE.

- A. Coalesce B. Pulverize C. Annihilate D. Severe C. Trounce

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## Section No. II - Quantitative Ability

### Syllabus

The quantitative section will consist of questions from following areas of General Mathematics:

- Basic arithmetic
  - Fractions and Decimals
  - Percents and Averages
  - Ratios and Proportions
- Algebra
  - Equations and Inequalities
  - Linear and Quadratic Equations
- Geometry
  - Lines and Angles
  - Triangles
  - Quadrilateral and other Polygons
  - Circle

### Question Format

The section will include three types of questions which are:

#### a) Discrete Quantitative Question

Each multiple-choice question will consist of a question statement which requires you to perform some calculations for selecting exactly one of the available choices.

### Example

Miss Saima, a boutique owner, received a shipment of stitched suits from a stitching factory. She sold half of them in the first week. In second week, after two more were sold, she had exactly  $\frac{2}{5}$  of the suits left. How many suits were in the shipment?

- A. 10 B. 20 C. 30 D. 40

### b) Quantitative Comparison Question

Quantitative comparison questions consist of two quantities and you have to compare them.

### Example

A cricketer scored 75 runs in each inning of his first three matches and 80 runs in his fourth and fifth match.	
<b>A</b>	<b>B</b>
Average after 4 innings	Average after 5 innings

- A. The quantity in column A is greater  
B. The quantity in column B is greater  
C. The two quantities in both columns are equal  
D. The relationship cannot be determined from the given information

### c) Data Interpretation Question

The data is presented in any format (chart, graph or table) and questions are based on the presented information.

### Example

#### Population by Age Group

(in thousands)

Age	Population
17 years and under	63,376
18–44 years	86,738
45–64 years	43,845
65 years and over	24,054

How many people are 44 years old or younger?

- A. 63,376                      B. 86,738                      C. 150,114                      D. 150,114,000

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### Section No. III – Subjective Knowledge

1. In DNA, Adenine pairs with:

- A. Thymine                      B. Uracil                      C. Guanine                      D. Uracil

2. During the process of meiosis, synapsis and recombination occur in:  
A. Prophase I      B. Prophase II      C. Metaphase I      D. Metaphase II
3. Down's syndrome is due to:  
A. Linkage      B. Sex-linked inheritance  
C. Crossing over      D. Nondisjunction of chromosomes
4. The most common cystic fibrosis mutation consists of:  
A. a duplication      B. a deletion      C. a substitution      D. an insertion
5. If the blood group of the child is 'O', then the blood group of the parent's cannot be:  
A. A and A      B. A and B      C. B and O      D. AB and O
6. Unit of inheritance is called:  
A. Phenotype      B. Genotype      C. Gene      D. Chromosome
7. Laws of heredity were proposed by:  
A. Morgan      B. Muller      C. Maipighi      D. Mendel
8. A cross between F1 hybrids with either of the parent is called:  
A. Test cross      B. Back cross      C. Reverse cross      D. None of these
9. The ratio of progeny of dwarf plants in a cross between heterozygous tall plant with homozygous dwarf plant will be:  
A. 25%      B. 50%      C. 75%      D. 100%
10. Which of the following is an example of monosomy in humans?  
A. Trisomy 21      B. Klinefelter's Syndrome  
C. Turner Syndrome      D. Non-disjunction