

# **Sample Paper for Pre-Entry Test for Admissions to MPhil/PhD Programs (PET-2024)**

The test paper will consist of **FOUR PARTS** as follows:

## **Section 1. English: 20%**

- Vocabulary
- Grammar
- Reading Comprehension

## **Section 2. Quantitative Reasoning: 15%**

- Arithmetic
- Percentage, Ratio and Proportion
- Algebra and Geometry
- Data Processing and Basic Statistics
- Data Interpretation (i.e., Graph Analysis)

## **Section 3. Analytical Reasoning: 15%**

- Analytical reasoning section is designed to assess candidate's analytical skills, mental sharpness and situational processing skill, critical thinking.

## **Section 4. Subject Knowledge: 50%**

# **SAMPLE TEST PAPER**

## **ENGLISH SECTION**

**Choose the word most similar in meaning to the capitalized ones.**

**1. ACCENTUATE**

- |                 |                  |
|-----------------|------------------|
| (A) Agree       | (B) Emphasize    |
| (C) To speed up | (D) Act strongly |

**Choose the appropriate options which are given below each question that completes the meaning of the given sentence.**

**2. Mountain is covered \_\_\_\_\_ snow.**

- |        |                   |
|--------|-------------------|
| (A) By | (B) with          |
| (C) of | (D) None of these |

**Read the following passage and answer the questions which follow.**

**Passage:** “Old woman,” grumbled the burly white man who had just heard Sojourner Truth speak, “do you think your talk about slavery does any good? I don’t care any more for your talk than I do for the bite of a flea.” The tall, imposing black woman turned her piercing eyes on him. “Perhaps not,” she answered, “but I’ll keep you scratching.” The little incident of the 1840s sums up all that Sojourner Truth was: utterly dedicated to spreading her message, afraid of no one, and both forceful and witty in speech. Yet 40 years earlier, who could have suspected that a spindly slave girl growing up in a damp cellar in upstate New York would become one of the most remarkable women in American history? Her name then was Isabella Baumfree, and by the time she was 14 years old she had seen both parents die of cold and hunger. She herself had been sold several times. By 1827, when New York freed its slaves, she had married and given birth to four children.

The first hint of Isabella’s fighting spirit came soon afterwards, when her youngest son was illegally seized and sold. She marched to the courthouse and badgered officials until her son was returned to her. In 1843, inspired by religion, she changed her name to Sojourner (meaning “one who stays briefly”) Truth and, with only pennies in her purse, set out to preach against slavery. From New England to Minnesota she trekked, gaining a reputation for her plain but powerful and moving words. Incredibly, despite being black and female (only white males were expected to be public speakers), she drew thousands to town halls, tents, and churches to hear her powerful, deep-voiced pleas on equality for blacks-and for women. Often she had to face threatening hoodlums. Once she stood before armed bullies and sang a hymn to them. Awed by her courage and her commanding presence, they sheepishly retreated. During the Civil War she cared for homeless ex-slaves in Washington, D.C. President Lincoln invited her to the White House to bestow praise on her. Later, she petitioned Congress to help former slaves get land in the West. Even in her old age, she forced the city of Washington, D.C. to integrate its trolley cars so that black and white passengers could ride together. Shortly before her death at the age of 86, she was asked what kept her going. “I think of the great things,” replied Sojourner.

3. The imposing black woman promised to keep the white man \_\_\_\_\_.  
(A) searching (B) crying  
(C) scratching (D) hollering
4. This incident occurred in the \_\_\_\_\_.  
(A) 1760s (B) 1840s  
(C) 1900s. (D) 1920s
5. Sojourner Truth was raised in a damp cellar in \_\_\_\_\_.  
(A) New York (B) Georgia  
(C) New Jersey (D) Maryland
6. Isabella lost both parents by the time she was \_\_\_\_\_.  
(A) 27 years old (B) 2 years old.  
(C) 7 years old (D) 14 years old
7. When New York freed its slaves, Isabella had \_\_\_\_\_.  
(A) problems (B) no children  
(C) four children (D) no education
8. Her change in name was inspired by \_\_\_\_\_.  
(A) a fighting spirit (B) religion  
(C) her freedom (D) friends
9. She travelled from New England to \_\_\_\_\_.  
(A) Canada (B) Minnesota  
(C) California (D) Virginia
10. She forced the city of Washington, D.C. to \_\_\_\_\_.  
(A) integrate its trolleys (B) give land grants  
(C) provide food for ex-slaves (D) clean its trolleys

11. She preached against \_\_\_\_\_.  
 (A) smoking (B) alcohol  
 (C) hoodlums (D) slavery
12. Sojourner Truth died at \_\_\_\_\_.  
 (A) 48 (B) 72  
 (C) 86 (D) 8

### QUANTITATIVE REASONING SECTION

13. In an election between two candidates, the winning candidate got 60 percent of the votes and he won by a majority of 7590 votes. If out of the total votes polled 75 percent are valid, then what is the total number of votes polled?  
 (A) 36630 (B) 45000  
 (C) 50600 (D) 6590
14. Peter is three times as old as Tom. If the sum of their ages is 40, how old is Peter?  
 (A) 10 (B) 15  
 (C) 20 (D) 3
15. A physics class has 12 boys and 18 girls. What is the fraction of the class boys.  
 (A)  $\frac{2}{5}$  (B)  $\frac{3}{5}$   
 (C)  $\frac{2}{3}$  (D)  $\frac{4}{1}$
16. How many feet there are in 4.5 meters? If 1 meter = 3.281 feet.  
 (A) 14.36 (B) 14.76  
 (C) 14.56 (D) 14.9

### ANALYTICAL REASONING SECTION

**Questions 17-21:** A farmer is deciding which crops to plant. Either three or four fields will be planted; in each field only one crop will be planted. Exactly the same fields that are planted the first year will be planted the second year, but no field will be planted to the same crop for two consecutive years.

For each field, the farmer will choose from among five possible crops: corn, soybeans, alfalfa, rye, and barley, according to the following conditions:

- In any year, at least one field will be planted to a cereal grain; the possible grains include corn, rye, and barley only.
- The year after corn is planted in a field, either soybeans or alfalfa must be planted in that field.

17. In a year in which corn is not planted, which of the following is true?  
 (A) Either alfalfa or soybeans, but not both, must be planted.  
 (B) Either barley or rye, or both, must be planted.  
 (C) Both alfalfa and soybeans must be planted.  
 (D) Both alfalfa and rye must be planted.
18. If the farmer plants three fields, each of the following is a possible selection of crops for the first year EXCEPT:  
 (A) barley, barley, barley (B) barley, rye, soybeans  
 (C) corn, corn, corn (D) rye, rye, rye

19. If the farmer plants three fields to corn, corn, and soybeans, respectively, which of the following selections is possible for the same three fields the following year?
- (A) Alfalfa, soybeans, soybeans, respectively
  - (B) Alfalfa, alfalfa, barley, respectively
  - (C) Rye, rye, soybeans, respectively
  - (D) Soybeans, corn, corn, respectively
20. If the farmer plants four fields, with corn in two of the fields the first year, how many crops must there be that are not planted the first year in any field but have to be planted the next year in some field?
- (A) 0
  - (B) 1
  - (C) 3
  - (D) 4
21. If the farmer plants four fields, the maximum number of the fields that can be planted to grains in both years is:
- (A) 0
  - (B) 1
  - (C) 3
  - (D) 4

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