Sample Admission Test for BS Economics with Data Science

Section 1: Reading

Instructions: The questions in this section are based on the following reading passage. You must attempt all the questions. Each MCQ is worth one mark each, and you are required to select the best answer. Choose only one option as the answer.

Passage:

Sports, it has been said, reveals character. It also reveals something else: philosophy. There is no better example of this than Rafael Nadal, the celebrated tennis player who has won 22 Grand Slam men's singles titles, including a record 14 French Open titles.

Hailed as one of the best male tennis players ever, it is perhaps his mind that separates him from other great athletes. His ability to play with physical pain, to come back from devastating injuries, to problem-solve during a match—all are part of his greatness. So is his attitude—his visceral delight in competing, whether he wins or loses.

Nadal was born into an affluent family. He hails from Mallorca, Spain, an idyllic vacation spot off the coast of Spain. He was a teenage prodigy who progressed quickly through the ranks, and did not have to suffer in the conventional sense (for instance, he did not need to go through the traditional route of playing small tournaments in far-flung places and staying in cheap hotels). And yet there is no contemporary athlete who seems to relish an almost monkish attitude to self-denial and suffering as Nadal. He has played with constant pain throughout his career, battled in some of the most exhausting matches in tennis history, and excels on clay courts, a surface which places a premium on endurance. Out of the 92 ATP (Association of Tennis Professionals) singles titles that he has won in his career, 63 were on clay courts. Enjoying suffering is a theme he returns to in many of his interviews.

It's also a theme that is found in several philosophical traditions, which insist that suffering and pain play an important role in developing a virtuous moral character, says Francisco Javier Frias, associate professor of kinesiology and philosophy at Penn State University.

Aristotle and other philosophers taught that "suffering often accompanies morally good actions or even that the worthiest moral choices always involve pain," Frias says.

"Athletes often experience suffering as instrumentally and intrinsically good," Frias says. "A victory that requires an athlete to fight until the end is perceived as more valuable than a victory that involves little suffering." Nadal is a perfect case study for philosophers who examine the importance of pain in athletes' experiences. He seems to place greater value on victories achieved in difficult, painful situations.

The following questions are based on the passage above.

1. What kind of victory would be more valuable if one agrees with the main arguments of the passage?

A. Any and all victories.
B. A victory resulting from subterfuge.
C. A victory that results in an injury.
D. A narrow victory.

2. The word 'idyllic' (line 9) means:

A. minute
B. picturesque
C. quiet
D. graphic

4. What is the prevalent theme of this entire passage?

A. greatness
B. ingenuity
C. suffering
D. endurance

5. Which of the following words is closest in meaning to the word 'premium' (as it is used in line 17 of the passage)?

A. value
B. amount
C. elite
D. instalment

3. According to the passage, you require a lot of _____ to play tennis on clay courts.

A. intelligence
B. analytical, problem-solving skills
C. control and restraint
D. stamina

6. The passage clearly states that Rafael Nadal suffered a lot of injuries:

A. on clay courts
B. in junior tennis tournaments
C. during his childhood
D. none of the above

Section II: Grammar and Vocabulary

Instructions: In this section, each MCQ is worth one mark each. You must attempt all the questions. For each question, you are required to select the best answer. Choose only one option as the answer.

1. _____, I will attend the party.
A. Weather permitted
B. Weather permits
C. Weather permit
D. Weather permitting

4. Which of the following words has the most similar meaning to the word 'phase'?
A. platform
B. command
C. stage
D. diffuser

2. _____ he gives the appearance of sincerity and reliability, just remember that you cannot trust him an inch.
A. As far as
B. Though
C. Nevertheless
D. So

5. He shouted at the driver _____ car was blocking the street.
A. who is
B. who of
C. whose
D. who

3. Which of the following words means: 'repeated too often; overfamiliar through overuse'?
A. tripe
B. trite
C. trope
D. twerp

6. Definitive conclusions could not be drawn from the study because of the _____ of data.
A. vigour
B. accuracy
C. range
D. paucity

Section III: Mathematics

1. Which of the following is NOT a function?

(A) $xy2 - 2 = 0$
(B) $x2y - 2 = 0$
(C) $2x2 - y = 0$
(D) All are functions

2. If 3(Y+4)+5(2Y-3) = 10Y+3, then find the value of Y.

A. 1
B. 2
C. 3
D. 4

3. 0.003 × 0.0004 = ?

A. 0.0012
B. 0.00012
C. 0.000012
D. 0.0000012

4. If the cost of 12 eggs is $40, how much will 3 eggs cost?

A. $9
B. $10
C. $11
D. $12
E. $13

5. The cost of an article is Rs.160. What should be the selling price in rupees to obtain a profit of 15 percent?

A. 180
B. 182
C. 184
D. 186

6. The x-coordinate of a point is also called:

A. Ordinate
B. Origin
C. Component
D. Abscissa

Section IV: Economics and Data Science

1. In a free market economy, positive externalities are:

A. overproduced
B. underproduced
C. both A and B
D. none of the above

2. Trade-offs are required because wants are unlimited, and resources are:

A. unlimited
B. efficient
C. scarce
D. undeterminable

3. Data that has already been collected by someone else is called:

A. raw data
B. primary data
C. secondary data
D. array data

4. Normative science is an approach that is concerned with:

A. what ought to be
B. what is
C. forms
D. facts