1) A sporting goods store sold 64 cricket bats in one week, some for Tk. 3 and the rest for Tk. 4 each. If receipts from bat sales for the week totaled Tk. 204, what is the fewest number of Tk. 4 cricket bats that could have been sold?

A. 24  
B. 12  
C. 8  
D. 4  
E. 2  

Answer: B

2) If \( \frac{2}{x} = 4 \) and if \( \frac{2}{y} = 8 \), then \( x - y = \)

A. \( \frac{1}{8} \)  
B. \( \frac{1}{4} \)  
C. \( \frac{3}{4} \)  
D. 4  
E. 24

Answer: B

3) Three business people wish to invest in a new company. Each person is willing to pay one third of the total investment. After careful calculations, they realize that each of them would pay BDT 7,200 less if they could find two more equal investors. How much is the total investment in the new business?

A. BDT 64,000  
B. BDT 3,600  
C. BDT 21,000  
D. BDT 5,400  
E. BDT 54,000  

Answer: E

4) If Mario was 32 years old 8 years ago, how old was he \( x \) years ago?

A. \( x-40 \)  
B. \( x-24 \)  
C. \( 40-x \)  
D. \( 24-x \)  
E. \( 24+x \)
Answer: C

5) Running at the same constant rate, 6 identical machines can produce a total of 270 bottles per minute. At this rate, how many bottles could 10 such machines produce in 4 minutes?
A. 648  
B. 1,800  
C. 2,700  
D. 10,800  
E. 64,800  

Answer: B

SECTION II: LOGICAL REASONING

This question (Question-1) is based on a conversation between two friends and from the understanding, you are required to choose an option out of five to justify the argument:

1) MARY: All of the graduates from Midland High School go to State College.
ANN: I don’t know. Some of the students at State College come from North Hills High School.

Argument: Ann’s response shows that she has interpreted Mary’s remark to mean that
(A) Most of the students from North Hills High School attend State College  
(B) None of the students at State College are from Midland High School  
(C) It is not only the students of Midland High School who attend State College  
(D) Midland High School is a better school than North Hills High School  
(E) Some Midland High School graduates do not attend college

Answer: C

2) Some judges have allowed hospitals to disconnect life-support equipment of patients who have no prospects for recovery. But I say that is cold-blooded murder. Either we put a stop to this practice now, or we will soon have programs of euthanasia for the old and infirm as well as others who might be considered a burden. Rather than disconnecting life-support equipment, we should let nature take its course.

All of the following are valid objections to the above argument EXCEPT
(A) It is internally inconsistent  
(B) It employs emotionally charged terms  
(C) It presents a false dilemma  
(D) It oversimplifies a complex moral situation  
(E) It appeals to authority not universally accepted
Answer: E

3) Edward was just elected president of the Student Senate, so he must be a senior. The statement above makes which of the following assumptions?

I. Only seniors can be members of the student senate.
II. Only seniors can be president of the student senate.
III. Only members of the student senate can be senior.

A. I only
B. II only
C. III only
D. I and II only
E. None of the above

Answer: B

4) If rains are dropping it must be rainy season. This statement can be true if which of the following statement were true?

A. Rains drop very frequently in the rainy season
B. Rainy season is good for farmers
C. Rains drop only in rainy season
D. Rains do not drop only in rainy season
E. During rainy season, rains make a storm

Answer: C

SECTION III: ENGLISH GRAMMER & LANGUAGE

Correct the following sentences from the options provided (Questions 1-2):

1) As the rising toll of victims at Chernobyl made clear, neither the scientists nor the ecologists knows how to deal with the lethal effects of nuclear power plant accidents.

A. Neither the scientists nor the ecologists knows
B. Neither the scientists nor the ecologists know
C. Neither the scientists or the ecologists know
D. Neither the scientists together with the ecologists knows
E. Not the scientist or the ecologists know

Answer: B
2) After battling hypertension for years, Mr. Khan was relieved by the results of his doctor’s annual physical examination, which indicated his blood pressure was normal.

A. His doctor’s annual physical examination, which
B. His annual physical examination by which it was
C. His annual physical examination, which
D. An annual physical examination by his doctor, which
E. His doctor’s annual physical examination that

Answer: D

Complete the sentence from the options provided (Questions 3-4):

3) Despite his best efforts to conceal his anger ......

A. We could detect that he was very happy
B. He failed to give us an impression of his agony
C. He succeeded in camouflaging his emotions
D. He could succeed in doing it easily
E. People came to know that he was annoyed

Answer: E

4) I felt somewhat more relaxed ......

A. But tense as compared to earlier
B. And tense as compared to earlier
C. As there was already no tension at all
D. And tension-free as compared to earlier
E. Because the worry had already captured by mind

Answer: D
SECTION IV: READING COMPREHENSION

Read the following passage and answer Questions 1-5:

Pretty much everybody agrees that clean air is a good thing, right? Evidently not so. Since the 1960s, when people started talking about clean air in the first place, the American energy industry, which includes coal companies, oil companies, and utility companies, has dragged its heels on every initiative to improve the quality of the air we breathe. Even after the Clean Air Act of 1970 and its amendments in 1977 and 1990 made it clear that controlling air pollution is a national priority, these companies have found tricks and loopholes to avoid compliance.

Perhaps the most egregious loophole is the one that allows older power plants to disregard limits on sulfur dioxide emissions until they undergo a major renovation, at which point they have to comply. Sulfur dioxide from coal-burning power plants is the primary cause of acid rain in North America. The Clean Air Act states that when coal burning power plants upgrade their equipment, they must then comply with sulfur dioxide limitations by either installing scrubbing equipment that cleans the emissions or using fuel with lower sulfur content. The law tied the timing of compliance to major renovations in order to give power plants a grace period in which to comply. Many power plants, however, have exploited a loophole in this law by instituting a series of “minor” renovations that, in effect, upgrade their equipment without requiring them to comply with the Clean Air Act. Some plants have cheated the system by undergoing “minor” renovations for decades.

The power companies claim that they have to resort to these underhanded measures because the cost of compliance with the Clean Air Act is too high. And if everyone else is cheating the system, why should they have to install costly sulfur dioxide scrubbers?

This cost argument falls apart upon scrutiny. Since 1977, more than 400 power plants across the country have managed to comply with the restrictions and are still making money. The sulfur dioxide scrubbing equipment has turned out to be far less expensive than the power industry naysayers claimed it would be. Many power plants have even complied with the emissions limits and reduced their operating costs by switching from high-sulfur Appalachian coal to the low-sulfur coal produced in western states such as Wyoming and Idaho. Western coal is not only cleaner than eastern coal, but also, because it is generally closer to the surface, as much as 30 percent less expensive to extract.

Clearly, the costs of compliance with the Clean Air Act can be justified, but if these companies were honest, such justifications would not have to be made. If they were honest, they would acknowledge the costs of not complying: the health costs of increased rates of asthma and lung cancer in high-emissions areas; the environmental costs of acid scarred forests and lakes; the aesthetic costs of a haze of sulfur dioxide cutting visibility across the eastern United States to only half of what it was in pre-
industrial times. When you look at the true costs you have to ask, is any cost too high for clean air?

1) Which of the following best expresses the purpose of this passage?

A. To explain how a loophole in the Clean Air Act allows power plants to avoid compliance with emissions restrictions
B. To raise awareness of the problems caused by sulfur dioxide emissions from coal-burning power plants
C. To argue against a specific implementation of the Clean Air Act that relates to greenhouse gas emissions
D. To argue that companies should not exploit a loophole in the Clean Air Act concerning an atmospheric pollutant
E. To advocate the passage of a new Clean Air Act that places limits on sulfur dioxide emissions

Answer: A

2) The author’s tone can best be described as which of the following?

A. Angry and subjective
B. Calm and objective
C. Analytic and ambivalent
D. Grim and self-satisfied
E. Tentative and biased

Answer: C

3) The author most likely begins and concludes the passage with questions for what reason?

A. To suggest possible areas for current and future research
B. To pose a question that is answered in the body of the passage, and then to formulate a question that arises naturally out of the discussion
C. To gain the readers’ attention and encourage their agreement with the arguments in the passage
D. To suggest through rhetorical questions that the problems described in the passage do not actually have answers
E. To test the readers’ knowledge of the material discussed in the passage

Answer: D
4) According to information given in the passage, which of the following statements presents the most accurate comparison of an average ton of coal from Wyoming with an average ton of coal from the Appalachian range in West Virginia?

A. The former is cheaper and has higher sulfur content than the latter.
B. The latter is found closer to the surface and contains more sulfur than the former.
C. The former can help coal-burning power plants meet limits on sulfur dioxide emissions and costs more than the latter.
D. The latter generates more energy per pound of coal than the former.
E. The former is found closer to the surface than the latter and helps coal-burning power plants meet limits on sulfur dioxide emissions.

Answer: A

5) According to the information given in the passage, sulfur dioxide emissions are linked to all except which of the following phenomena?

A. Reduced visibility in the eastern United States
B. Damage to the ozone hole
C. Increased rates of asthma
D. Acid rain
E. Damaged forests

Answer: D

SECTION V: EASY WRITING (Maximum 250 words)

Write an essay on: “The impact of Hartal on business and economics in Bangladesh”