

Reliance Global Corporate Security

Sample Questions for MAT Entrance test

Section 1: Reading Comprehension

Milankovitch proposed in the early twentieth century that the ice ages were caused by variations in the Earth's orbit around the Sun. For some time this theory was considered untestable, largely because there was no sufficiently precise chronology of the ice ages with which the orbital variations could be matched.

To establish such a chronology it is necessary to determine the relative amounts of land ice that existed at various times in the Earth's past. A recent discovery makes such a determination possible: relative land-ice volume for a given period can be deduced from the ratio of two oxygen isotopes, 16 and 18, found in ocean sediments. Almost all the oxygen in water is oxygen 16, but a few molecules out of every thousand incorporate the heavier isotope 18.

When an ice age begins, the continental ice sheets grow, steadily reducing the amount of water evaporated from the ocean that will eventually return to it. Because heavier isotopes tend to be left behind when water evaporates from the ocean surfaces, the remaining ocean water becomes progressively enriched in oxygen 18. The degree of enrichment can be determined by analyzing ocean sediments of the period, because these sediments are composed of calcium carbonate shells of marine organisms, shells that were constructed with oxygen atoms drawn from the surrounding ocean. The higher the ratio of oxygen 18 to oxygen 16 in a sedimentary specimen, the more land ice there was when the sediment was laid down. As an indicator of shifts in the Earth's climate, the isotope record has two advantages. First, it is a global record: there is remarkably little variation in isotope ratios in sedimentary specimens taken from different continental locations. Second, it is a more continuous record than that taken from rocks on land. Because of these advantages, sedimentary evidence can be dated with sufficient accuracy by radiometric methods to establish a precise chronology of the ice ages. The dated isotope record shows that the fluctuations in global ice volume over the past several hundred thousand years have a pattern: an ice age occurs roughly once every 100,000 years. These data have established a strong connection between variations in the Earth's orbit and the periodicity of the ice ages. However, it is important to note that other factors, such as volcanic particulates or variations in the amount of sunlight received by the Earth, could potentially have affected the climate. The advantage of the Milankovitch theory is that it is testable; changes in the Earth's orbit can be calculated and dated by applying Newton's laws of gravity to progressively earlier configurations of the bodies in the solar system. Yet the lack of information about other possible factors affecting global climate does not make them unimportant.

Questions 1-2 refer to the passage.

1. In the passage, the author is primarily interested in

- a. Suggesting an alternative to an outdated research method
- b. Introducing a new research method that calls an accepted theory into question
- c. Emphasizing the instability of data gathered from the application of a new scientific method
- d. Presenting a theory and describing a new method to test that theory**

- e. Initiating a debate about a widely accepted theory

2. The author of the passage would be most likely to agree with which of the following statements about the Milankovitch theory?

- a. It is the only possible explanation for the ice ages.
- b. It is too limited to provide a plausible explanation for the ice ages, despite recent research findings.
- c. It cannot be tested and confirmed until further research on volcanic activity is done.
- d. It is one plausible explanation, though not the only one, for the ice ages.**
- e. It is not a plausible explanation for the ice ages, although it has opened up promising possibilities for future research.

Section II: Computer awareness

1. Which of the following is not a Windows Version?

- a. Windows 2000
- b. Windows 98
- c. Windows 7
- d. Windows 9**

2. Which of the following is not available on the Ruler of MS Word screen?

- a. Tab stop box
- b. Left Indent
- c. Right Indent
- d. Center Indent**

Section III: Quantitative Analysis

1. 4 labourers complete a work in 16 days, in how many days this work will be done by one laborer?

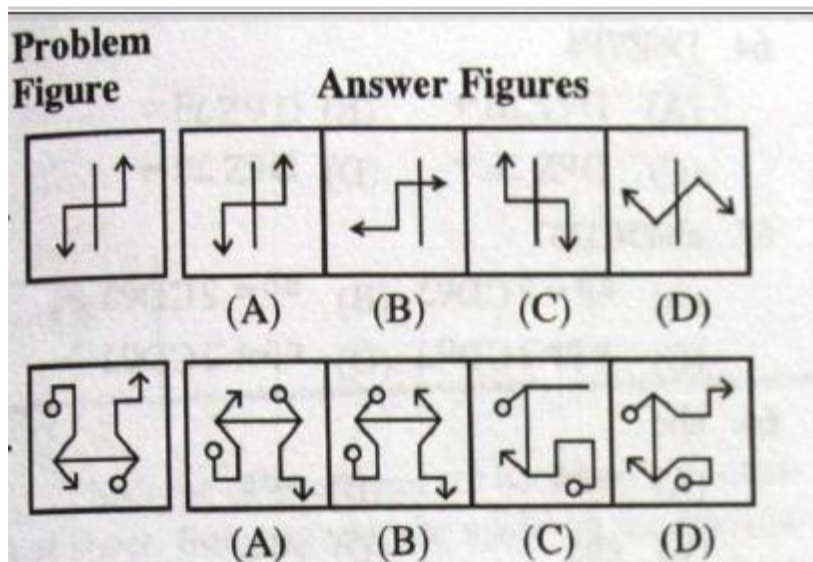
- a. 48
- b. 64**
- c. 68
- d. 4

2. The price of a certain television set is discounted by 10 percent. And the reduced price is then discounted by 10 percent. This series of successive discounts is equivalent to a single discount of

- a. 20%
- b. 19%**
- c. 11%
- d. 10%

Section IV: Diagrammatic Analysis

There is a 'Problem Figure' and another set of 'Answer Figures' (A), (B),(C),(D). You have to select one figure from the Answer Figures which will be the water image of the given Problem Figure.



Ans 1. C

Ans 2. A

Section V: Grammar and Verbal

Each of the sentence correction questions presents a sentence, part or all of which is underlined. Beneath the sentence you will find five ways of phrasing the underlined part. The first of these repeats the original; the other four are different. Follow the requirements of standard written English to choose your answer, paying attention to grammar, word choice, and sentence construction. Select the answer that produces the most effective sentence your answer should make the sentence clear, exact, and free of grammatical error. It should also minimize awkwardness, ambiguity, and redundancy.

1. A higher interest rate is only one of the factors, albeit an important one, that keeps the housing market from spiralling out of control, like it did earlier in the decade.

- That keeps the housing market from spiralling out of control, like it did earlier in the decade.
- That keep the housing market from spiralling out of control, as it did earlier in the decade**
- That keeps the housing market from spiralling out of control, as it did earlier in the decade
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2. In the 1980's the rate of increase of the minority population of the United States was nearly twice as fast as the 1970's.

- a. Twice as fast as
- b. Twice as fast as it was in
- c. **Twice what it was in**
- d. two times faster than that of
- e. two times greater than

Section VI: Analytical reasoning

1. One morning Udai and Vishal were talking to each other face to face at a crossing. If Vishal's shadow was exactly to the left of Udai, which direction was Udai facing?

- a. East
- b. West
- c. North
- d. South

2. Questions is based on a short argument, a set of statements, or a plan of action. For each question, select the best answer of the choices given.

Red blood cells in which the malarial-fever parasite resides are eliminated from a person's body after 120 days. Because the parasite cannot travel to a new generation of red blood cells, any fever that develops in a person more than 120 days after that person has moved to a malaria-free region is not due to the malarial parasite.

Which is the following, if true, most seriously weakens the conclusion above?

- a. The fever caused by the malarial parasite may resemble the fever caused by flu viruses.
- b. The anopheles mosquito, which is the principal insect carrier of the malarial parasite, has been eradicated in many parts of the world.
- c. Many malarial symptoms other than the fever, which can be suppressed with anti-malarial medication, can reappear within 120 days after the medication is discontinued.
- d. In some cases, the parasite that causes malarial fever travels to cells of the spleen, which are less frequently eliminated from a person's body than are red blood cells.
- e. In any region infested with malaria-carrying mosquitoes, there are individuals who appear to be immune to malaria.

Section VII: General Awareness

1. Which country decided to construct a monument for the Indian soldiers Killed by Pakistan in the 1971?

- a. India
- b. Pakistan
- c. **Bangladesh**
- d. Sri Lanka

2. Who launched 'Fit India Age Appropriate Fitness Protocols' at Fit India dialogue?

- a. Amit Shah
- b. Narendra Modi
- c. Virat Kohli
- d. Sunil Chetri