

# International Olympiad on English Language & Literature

Segment: Grade 9-10

Test on Reading Skill

Name: \_\_\_\_\_

Country: \_\_\_\_\_

Institute: \_\_\_\_\_

Email: \_\_\_\_\_

\_\_\_\_\_  
Signature of the participant

\_\_\_\_\_  
Signature of the invigilator

## Rules and Regulations:

1. You have to be present in the examination hall well before the commencement of the test.
2. You will not be permitted to enter the examination hall 30 minutes after the commencement of the test.
3. You will not be permitted to leave the examination hall until after 30 minutes of commencement of the test.
4. If you have any paper/chit with you, surrender them to the invigilator now.
5. All are multiple-choice questions.
6. Please use a BLACK ball point pen to mark your answers. DO NOT use pencil.
  - Choose the MOST appropriate answer.
  - Darken the circle corresponding to the answer of your choice. An example:

Question	Answer
The shape of the Earth is _____ (A) Spherical      (B) Spheroidal (C) Ovoid          (D) Ellipsoidal	A    B    C    D <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>

- Marks will not be awarded if more than one answer is chosen.
  - Your answer must be given only in the answer sheet (overleaf).
  - **Answers given anywhere else will not be evaluated.**
7. Please DO NOT tear out or add any sheet from/to the question paper.
  8. Please enter your Registration No. and affix your signature on the answer sheet before starting to answer the questions.

**Read the following passage and answer the questions from 1 to 7:**

Classical Physics defines the vacuum as a state of absence: a vacuum is said to exist in a region of space if there is nothing in it. In the quantum field theories that describe the physics of elementary particles, the vacuum becomes somewhat more complicated. Even in empty space, particles can appear spontaneously as a result of fluctuations of the vacuum. For example, an electron and a positron, or antielectron, can be created out of the void. Particles created in this way have only a fleeting existence; they are annihilated almost as soon as they appear, and their presence can never be detected directly. They are called virtual particles in order to distinguish them from real particles, whose lifetimes are not constrained in the same way, and which can be detected. Thus, it is still possible to define the vacuum as a space that has no real particles in it.

One might expect that the vacuum would always be the state of lowest possible energy for a given region of space. If an area is initially empty and a real particle is put into it, the total energy, it seems, should be raised by at least the energy equivalent of the mass of the added particle. A surprising result of some recent theoretical investigations is that this assumption is not invariably true. There are conditions under which the introduction of a real particle of finite mass into an empty region of space can reduce the total energy. If the reduction in energy is great enough, an electron or positron will be spontaneously created. Under these conditions the electron or positron are not a result of vacuum fluctuations but are real particles, which exist indefinitely and can be detected. In other words, under these conditions the vacuum is an unstable state and can decay into a state of lower energy; i.e., one in which real particles are created.

The essential condition for the decay of the vacuum is the presence of an intense electric field. As a result of the decay of the vacuum, the space permeated by such a field can be said to acquire an electric charge, and it can be called a charged vacuum. The particles that materialize in the space make the charge manifest. An electric field of sufficient intensity to create a charged vacuum is likely to be found in only one space: in the immediate vicinity of a super heavy atomic nucleus, one with about twice as many protons as the heaviest natural nuclei known. A nucleus that large cannot be stable, but it might be possible to assemble one next to a vacuum for long enough to observe the decay of the vacuum. Experiments attempting to achieve this are now under way.

1. Which of the following titles best describes the passage as a whole?
  - a) The Vacuum: Its Fluctuations and Decay
  - b) The Vacuum: Its Creation and Instability
  - c) The Vacuum: A state of absence
  - d) Particles that Materialize in the Vacuum
  - e) Classical Physics and the Vacuum
2. According to the passage, the assumption that the introduction of a real particle into a vacuum raises the total energy of that region of space has been cast into doubt by which of the following?
  - a) Findings from laboratory experiments
  - b) Findings from observational field experiments
  - c) Accidental observations made during other experiments
  - d) Discovery of several erroneous propositions in accepted theories
  - e) Predictions based on theoretical work
3. It can be inferred from the passage that scientists are currently making efforts to observe which of the following events?
  - a) The decay of a vacuum in the presence of virtual particles
  - b) The decay of a vacuum next to a super heavy atomic nucleus
  - c) The creation of a super heavy atomic nucleus next to an intense electric field

- d) The creation of a virtual electron and a virtual positron as a result of fluctuations of a vacuum
  - e) The creation of a charged vacuum in which only real electrons can be created in the vacuum's region of space
4. Physicists' recent investigations of the decay of the vacuum, as described in the passage, most closely resemble which of the following hypothetical events in other disciplines?
- a) On the basis of data gathered in a carefully laboratory experiment, a chemist predicts and then demonstrates the physical properties of a newly synthesized polymer.
  - b) On the basis of manipulations of macroeconomic theory, an economist predicts that, contrary to accepted economic theory, inflation and unemployment will both decline under conditions of rapid economic growth.
  - c) On the basis of a reading of the texts of Jane Austen's novel, a literary critic suggests that, contrary to accepted literary interpretations, Austen's plots were actually metaphors for political events in early nineteenth century.
  - d) On the basis of data gathered in carefully planned observations of several species of birds, a biologist proposes a modification in the accepted theory of interspecies competition.
  - e) On the basis of a study of observations incidentally recorded in ethnographers' descriptions of non-Western societies, an anthropologist proposes a new theory of kinship relations.
5. According to the passage, the author considers the reduction of energy in an empty region of space to which a real particle has been added to be
- a) A well-known process
  - b) A frequent occurrence
  - c) A fleeting aberration
  - d) An unimportant event
  - e) An unexpected outcome
6. According to the passage, virtual particles differ from real particles in which of the following ways?
- I) Virtual particles have extremely short lifetimes.
  - II) Virtual particles are created in an intense electric field.
  - III) Virtual particles cannot be detected directly.

Which of the above statements are right for Question no. 6?

- a) I only
  - b) II only
  - c) III only
  - d) I and II only
  - e) I and III only
7. The author's assertions concerning the conditions that lead to the decay of the vacuum would be most weakened if which of the following occurred?
- a) Scientists created an electric field next to a vacuum, but found that the electric field was not intense enough to create a charged vacuum.
  - b) Scientists assembled a super heavy atomic nucleus next to a vacuum, but found that no virtual particles were created in the vacuum's region of space.
  - c) Scientists assembled a super heavy atomic nucleus next to a vacuum, but found that they could not then detect any real particles in the vacuum's region of space.
  - d) Scientists introduced a virtual electron and a virtual positron into a vacuum's region of space, but found that the vacuum did not then fluctuate.

- e) Scientists introduced a real electron and a real positron into a vacuum's region of space, but found that the total energy of the space increased by the energy equivalent of the mass of the particles.

**Deduce the following two charts and answer the questions marked 8, 9, 10:**

United States JUNE Unemployment Rates as a percent of work force (1979-1989)

Year	Unemployment Rates (% of workforce)
1979	5.7
1980	7.6
1981	7.5
1982	9.6
1983	10.1
1984	7.2
1985	7.3
1986	7.2
1987	6.2
1988	5.4
1989	5.3

Unemployment Data for the Eleven States of U.S. with the largest populations in 1989

States	Unemployment Rate in MAY (% of state work force)	Unemployment Rate in JUNE (% of state work force)	Number of unemployed in JUNE (in thousands)
California	5.5	5.6	797
New York	5.3	5.0	439
Texas	5.9	6.1	502
Illinois	5.7	5.5	325
Pennsylvania	4.6	4.0	239
Florida	6.4	6.1	384
Ohio	5.4	5.6	307
Michigan	6.7	7.3	339
New Jersey	3.0	4.2	165
North Carolina	3.6	4.0	124
Massachusetts	3.6	4.0	126

8. In June 1989, how many of the eleven states listed had an unemployment rate greater than that for the nation as a whole?
- Three
  - Four
  - Five
  - Six
  - Seven
9. Of the following states, which had the greatest increase in the unemployment rate from May to June of 1989?
- New York

- b) Texas
  - c) Pennsylvania
  - d) Michigan
  - e) New Jersey
10. Of the following, which was the longest period of consecutive decrease in the United States June Unemployment Rate?
- a) 1985 to 1989
  - b) 1984 to 1989
  - c) 1984 to 1987
  - d) 1983 to 1989
  - e) 1983 to 1984

**Read the following passage and answer the questions marked 11 to 14:**

Simone de Beauvoir's work greatly influenced Betty Friedan's- indeed, made it possible. Why, then, was it Friedan who became the prophet of women's emancipation in the United States? Political conditions, as well as, a certain anti-intellectual bias, prepared Americans and the American media to better receive Friedan's deradicalized and highly pragmatic *The Feminine Mystique*, published in 1963, than Beauvoir's theoretical reading of women's situation in *The Second Sex*. In 1953 when *The Second Sex* first appeared in translation in the United States, the country had entered the silent, fearful fortress of the anticommunist McCarthy years (1950-1954), and Beauvoir was suspected of Marxist sympathies. Even *The Nation*, a generally liberal magazine, warned its readers against the 'certain political learnings' of the author. Open acknowledgement of the existence of women's oppression was too radical for the United States in the fifties, and Beauvoir's conclusion, that change in women's economic condition, though insufficient by itself, 'remains the basic factor' in improving women's situation, was particularly unacceptable.

11. According to the passage, one difference between *The Feminine Mystique* and *The Second Sex* is that Friedan's book
- a) Rejects the idea that women are oppressed
  - b) Provides a primarily theoretical analysis of women's lives
  - c) Does not reflect the political beliefs of its author
  - d) Suggests that women's economic condition has no impact on their status
  - e) Concentrates in the practical aspects of the question of women's emancipation
12. The author quotes from *The Nation* most probably in order to
- a) Modify an earlier assertion
  - b) Point out a possible exception to her argument
  - c) Illustrate her central point
  - d) Clarify the meaning of a term
  - e) Cite an expert opinion
13. It can be inferred from the passage that which of the following is not a factor in the explanation of why *The Feminine Mystique* was received more positively in the United States than *The Second Sex*?
- a) By 1963 political conditions in the United States had changed.
  - b) Friedan's book was less intellectual and abstract than Beauvoir's.
  - c) Readers did not recognize the powerful influence of Beauvoir's book on Friedan's ideas.
  - d) Friedan's approach to the issue of women's emancipation was less radical than Beauvoir's.
  - e) American readers were more willing to consider the problem of oppression of women in the sixties than they had been in the fifties.
14. According to the passage, Beauvoir's book asserted that the status of women

- a) Is the outcome of political oppression.
  - b) Is inherently tied to their economic condition.
  - c) Can be best improved under a communist government.
  - d) Is a theoretical, rather than a pragmatic issue.
  - e) Is a critical area of discussion in Marxist economic theory.
15. Ironically, Carver's precision in sketching lives on the edge of despair ensures that his stories will sometimes read too narrowly, much as Dicken's social-reformer role once caused his broader concerns to be \_\_\_\_\_.
- a) Ignored
  - b) Reinforced
  - c) Contradicted
  - d) Diminished
  - e) Diversified
16. The demise of the rigorous academic curriculum in high school resulted, in part, from the progressive rhetoric that \_\_\_\_\_ the study of subjects previously thought \_\_\_\_\_ as part of school learning.
- a) Advocated, necessary
  - b) Enhanced, indispensable
  - c) Restricted, impractical
  - d) Undermined, popular
  - e) Sanctioned, inappropriate
17. While some see in practical jokes a wish for mastery in miniature over a world that seems very \_\_\_\_\_, others believe that the jokes' purpose is to disrupt, by reducing all transactions to \_\_\_\_\_.
- a) Dubious, confusion
  - b) Disorderly, symmetry
  - c) Harmonious, dissonance
  - d) Unruly, chaos
  - e) Turbulent, uniformity