Match the words with their synonyms.

1. virtually (adv)

A) almost

B) never

C) consistently

D) occasionally

2. decade (n)

A) century

B) annual

C) millennium

D) ten years

3. insurmountable (adj)

A) beatable

B) impassable

C) attainable

D) convincing

4. artificial (adj)

A) imitation

B) natural

C) genuine

D) discernible

5. however (adv)

A) if

B) but

C) when

D) conversely

6. repulsion (n)

A) attracting

B) liking

C) pushing

D) loving

7. consume (v)

A) neglect

B) produce

C) deplete

D) accumulate

8. grasp (n)

A) ignorance

B) avoidance

C) comprehension

D) misconception

9. overcome (v)

A) conquer

B) surrender

C) yield

D) forfeit

10. venture (n)

A) government

B) enterprise

C) idleness

D) indolence

It sounds like the stuff of dreams: a virtually limitless source of energy that does not produce greenhouse gases or radioactive waste. That is the promise of nuclear fusion, which for decades has been nothing more than a fantasy due to insurmountable technical challenges. But things are heating up in what has turned into a race to create what amounts to an artificial sun here on Earth, one that can provide power for our kettles, cars, and light bulbs.
Today's nuclear power plants create electricity through nuclear fission, in which atoms are split. Nuclear fusion, however, involves combining atomic nuclei to release energy. It is the same reaction that is taking place at the Sun's core. But overcoming the natural repulsion between atomic nuclei and maintaining the right conditions for fusion to occur is not straightforward. And doing so in a way that produces more energy than the reaction consumes has been beyond the grasp of the finest minds in physics for decades. But perhaps not for much longer. Some major technical challenges have been overcome in the past few years and governments around the world have been pouring money into fusion power research. There are also over 20 private ventures in the UK, US, Europe, China and Australia competing to be the first to make fusion energy production a reality.

1. According to the passage, nuclear fusion ----.

A) can be an infinite power supply that does not generate undesired by-products while being used

B) is used in experimental reactors by various countries, which are the top energy consumers

C) loses its toxicity because of the state-of-the-art power plants that can withstand superheated gases

D) has an uncanny resemblance to the Sun although the mechanism behind it states the otherwise

E) might release boundless energy in theory, but the pressure within the Sun will never be recreated

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2. Which of the following is NOT true according to the passage?

A) A drawback to nuclear fission reactors is the possibility of radiation-releasing nuclear accidents.

B) Nuclear fusion bears resemblance to the Sun in terms of generating power.

C) Nuclear fission is the splitting of a large atomic nucleus into smaller nuclei.

D) Fusion is the process where two light nuclei are combined together to release vast amounts of energy.

E) It is difficult to produce energy via nuclear fusion and is very difficult to control.

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3. It can be inferred from the passage that nuclear fusion ----.

A) causes raging controversy among experts due to its immense but temporary popularity

B) harbours a notoriety even if the outcomes after this process yield energy to be used for heating

C) is impossible because the repulsive electrostatic forces between the positively charged nuclei

D) has led to drastic changes in the safety protocols of nuclear fission reactors and related fields

E) has eluded physicists for many years, but there are signs that a bright future could be on the horizon

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4. What could be best title of the passage?

A) Race in Achieving Nuclear Power

B) Fusion's Time to Shine

C) Nuclear Industry Explained

D) Infancy of Fusion Technology

E) Future at Risk: Nuclear Fusion

Choose the best option.

1. stuff ---- dreams

A) at B) onto

C) off D) of

2. a ---- limitless source of energy

A) readily B) jointly

C) virtually D) previously

3. nuclear fusion, which ---- decades has been nothing more than a fantasy

A) for B) down

C) from D) at

4. what amounts ---- an artificial sun here on Earth

A) apart B) to

C) in D) at

5. provide power ---- our kettles, cars, and light bulbs

A) for B) in

C) with D) out

6. ---- electricity through nuclear fission

A) develop B) import

C) shape D) create

7. ---- place at the Sun's core

A) taking B) leaving

C) putting D) posing

8. overcoming the natural repulsion between atomic nuclei ---- maintaining the right conditions

A) so as to B) and

C) as D) for

9. beyond the grasp ---- the finest minds

A) apart B) on

C) of D) over

10. governments ---- the world

A) out of B) before

C) for D) around

1. It sounds like the stuff of dreams: a virtually limitless source of energy that does not produce greenhouse gases or radioactive waste.
2. That is the promise of nuclear fusion, which for decades has been nothing more than a fantasy due to insurmountable technical challenges.
3. But things are heating up in what has turned into a race to create what amounts to an artificial sun here on Earth, one that can provide power for our kettles, cars, and light bulbs.
4. Today's nuclear power plants create electricity through nuclear fission, in which atoms are split.
5. Nuclear fusion, however, involves combining atomic nuclei to release energy.
6. It is the same reaction that is taking place at the Sun's core.
7. But overcoming the natural repulsion between atomic nuclei and maintaining the right conditions for fusion to occur is not straightforward.
8. And doing so in a way that produces more energy than the reaction consumes has been beyond the grasp of the finest minds in physics for decades.
9. But perhaps not for much longer.
10. Some major technical challenges have been overcome in the past few years and governments around the world have been pouring money into fusion power research.
11. There are also over 20 private ventures in the UK, US, Europe, China and Australia competing to be the first to make fusion energy production a reality.

1. Kulağa rüya gibi geliyor: sera gazı veya radyoaktif atık üretmeyen neredeyse sınırsız bir enerji kaynağı.
2. Bu, on yıllardır aşılmaz teknik zorluklar nedeniyle bir fanteziden başka bir şey olmayan nükleer füzyonun vaadi.
3. Ancak, tamda burada, Dünya'da su ısıtıcılarımız, arabalarımız ve ampullerimiz için güç sağlayabilecek yapay bir güneş yaratmak için bir yarışa dönüşen bu şeyde işler iyice kızışıyor.
4. Günümüzün nükleer santralleri, atomların bölündüğü nükleer füzyon yoluyla elektrik üretir.
5. Ancak nükleer füzyon, enerjiyi açığa çıkarmak için atom çekirdeklerini bir araya getirmeyi içerir.
6. Bu, Güneş'in çekirdeğinde meydana gelen reaksiyonun aynısıdır.
7. Ancak atom çekirdekleri arasındaki doğal itişimin üstesinden gelmek ve füzyonun gerçekleşmesi için doğru koşulları sağlamak kolay değildir.
8. Ve bunu reaksiyonun tükettiğinden daha fazla enerji üretecek bir şekilde yapmak, on yıllardır fizikteki en iyi zihinlerin kavrayışının da ötesindeydi.
9. Ama belki de bu böyle daha fazla sürmeyecek.
10. Son birkaç yılda bazı önemli teknik zorlukların üstesinden gelindi ve dünyanın dört bir yanındaki devletler füzyon gücü araştırmalarına para akıtıyor.
11. Ayrıca Birleşik Krallık, ABD, Avrupa, Çin ve Avustralya'da füzyon enerji üretimini gerçeğe dönüştüren ilk şirket olmak için yarışan 20'den fazla özel girişim var.

Answer key

Match the words with their synonyms.

1. A 2. D 3. B 4. A 5. B

6. C 7. C 8. C 9. A 10. B

Reading Passage 01

1. A 2. A 3. E 4. B

Choose the best option.

1. D 2. C 3. A 4. B 5. A

6. D 7. A 8. B 9. C 10. D