1. CRISPR is ---- humanity’s most effective gene-editing tool, and it is no longer just limited to editing plants or laboratory animals.

A) infrequently  
B) currently  
C) adequately  
D) effortlessly  
E) strongly

2. We’ve known for some time that huge deposits of water ice reside beneath the ---- of Mars.

A) surface  
B) atmosphere  
C) orbit  
D) gravity  
E) location

3. Air travel is ---- for an estimated 2 to 3 percent of global carbon emissions.

A) necessary  
B) reasonable  
C) eligible  
D) responsible  
E) significant

4. The world’s biggest economies are ---- the race to assert their power over the Arctic’s fossil fuel resources.

A) implying  
B) jeopardizing  
C) struggling  
D) approaching  
E) joining

5. Current battery technology doesn’t yet have the range to replace jet fuel ----; batteries simply don’t have the same energy density.

A) severely  
B) elaborately  
C) entirely  
D) formerly  
E) gradually

6. Alongside solar and wind power, clean energy companies are also ---- using salt to generate electricity.

A) taking after  
B) looking into  
C) carrying out  
D) giving up  
E) bringing about
7. Cloud forests are a kind of rainforest that can be found on high mountains in tropical regions, usually **between** 2,000 and 3,500 meters **above** sea level.

A) around / by
B) after / in
C) between / above
D) towards / over
E) among / on

8. China **has implemented** several changes and launched multiple projects **to address** air pollution in recent years.

A) has implemented / to address
B) is implementing / addressed
C) implemented / addressing
D) had implemented / to have addressed
E) implements / being addressed

9. Earth’s oceans **absorbed** about 40% of all the carbon dioxide that humans **emitted** into the atmosphere.

A) absorbed / emitted
B) are absorbing / have emitted
C) have absorbed / had emitted
D) would absorb / are emitting
E) absorb / emit

10. Climate change models **predicted** that clouds **should be pushed** higher into the sky in coming years.

A) predicted / should be pushed
B) are predicting / were pushed
C) can predict / are pushing
D) predict / will be pushed
E) have predicted / had been pushed

11. The planet is growing more food than ever, and **yet** millions of people continue to starve worldwide.

A) yet
B) because
C) then
D) thus
E) so that

12. Japan is a much **more** technologically forward-thinking nation **than** the United States, at least in terms of everyday conveniences.

A) more / than
B) as / as
C) not only / but also
D) such / that
E) whether / or
13. Robots are typically incapable of thinking ahead, ---- they’re often programmed to perform simple tasks.

A) but
B) whereas
C) as
D) although
E) as if

14. Air pollution has been linked to dementia, Alzheimer’s, and even death, ---- introducing technologies that can purify the air is critical.

A) so
B) when
C) although
D) as soon as
E) even if

15. Alibaba has become one of the top ten largest companies in the world, primarily ---- its success as an online retailer.

A) in case of
B) instead of
C) in addition to
D) despite
E) due to

16. Recent genetic evidence suggests ---- maize domestication occurred 9000 years ago in central Mexico.

A) what
B) that
C) how
D) which
E) when

17. Attempts to predict how people will behave have existed ---- the origins of humankind.

A) after
B) before
C) since
D) until
E) while

18. Chimpanzees, ---- most animals, are regular tool users of stones and sticks.

A) such as
B) despite
C) because of
D) unlike
E) in case of

19. Advancements in spine repair could be propelling us into a future ---- a severed spinal cord is a treatable condition.

A) that
B) where
C) what
D) which
E) whose

20. A device that can transmit one person’s physical sensations to another is not ---- impossible ---- it sounds.

A) so / that
B) as / as
C) rather / than
D) either / or
E) both / and

Urban farms can be as simple as traditional small outdoor community gardens, or as complex as indoor vertical farms (21) ---- farmers think about growing space in three-dimensional terms. These complex, futuristic farms (22) ---- in a number of ways, (23) ---- most of them contain rows of racks lined with plants rooted in soil, nutrient-enriched water, or simply air. (24) ---- tier is equipped with UV lighting to mimic the effects of the sun. Unlike the unpredictable weather of outdoor farming, growing indoors allows farmers to tailor conditions to (25) ---- growth.

21.
A) in which  
B) what  
C) of which  
D) with whom  
E) whose

22.
A) ought to be configured  
B) may have been configured  
C) can be configured  
D) have to be configured  
E) should be configured

23.
A) in fact  
B) but  
C) if  
D) for  
E) also

24.
A) Another  
B) Others  
C) Each  
D) All  
E) Both

25.
A) prevent  
B) inhibit  
C) decline  
D) cease  
E) maximize

(26) --- mankind expands outwards into the universe, unmanned spacecraft (27) --- a growing problem: as Earth becomes more distant, the transmission time for information and instructions to reach these craft becomes longer and longer. This time lag could make it difficult or even impossible (28) --- satellites to respond to fast-moving threats, like space debris, or quickly take opportunities to (29) --- data from unexpected sources, like a passing meteorite. A new research will be funded to overcome this issue (30) --- helping such spacecraft “think” for themselves using deep-learning artificial intelligence.

26.  
A) Although  
B) As  
C) By the time  
D) While  
E) Until

27.  
A) would face  
B) faced  
C) has faced  
D) is facing  
E) will face

28.  
A) at  
B) by  
C) in  
D) for  
E) of

29.  
A) transmit  
B) collect  
C) relay  
D) display  
E) wipe

30.  
A) by  
B) over  
C) for  
D) of  
E) with
31. Despite the wealth of knowledge about extreme events that happen on land, ----.
A) we know much about the factors that increase vulnerability
B) it is important to take measures against them
C) the oceans remain vastly unexplored
D) they occur more frequently than ever due to global warming
E) these events have negative consequences for all

32. Whether it’s insulating old homes or building from scratch, ----.
A) the cost of insulating materials have remained more or less the same
B) newer homes are likely to use less energy than older homes
C) it was cheaper to heat houses than it was to insulate it
D) making energy efficiency affordable is key to lowering the emissions from the construction sector
E) many older homes have little insulation given the current standards

33. To send data over short distances, ----.
A) telecommunications companies use cables that carry electrical signals
B) we need to ensure that data is transmitted securely
C) data has been sent via non-electronic since the advent of communication
D) digital communications is quickly edging out analog communication
E) data is transferred in the form of bits and bytes over a digital or analog medium

34. As the planet keeps warming at the current rate, ----.
A) climate engineering seems to revert the process
B) rising sea level is one of the changes Earth’s oceans are undergoing
C) millions will be exposed to increased flooding risk over the next decades
D) the glacier meltdown has come to a halt in some locations
E) sea level rise may be prevented by reducing emissions from fossil fuels

35. Though the site of the Chernobyl disaster may never again be lively, ----.
A) many workers died in the aftermath of the accident
B) no one is allowed to return to the area of disaster
C) it continued to operate for many years after the radioactive fallout
D) it can serve as a source of cost-effective renewable energy
E) there are still many unanswered questions about the Chernobyl accident

36. Companies working on autonomous cars are at varying stages of development, ----.
A) as if the technology to put self-driving cars on the road was ready
B) although autonomous driving is no longer a dream
C) yet there are 5 different levels of automation
D) so they would improve the mobility of elderly and disabled people
E) but their targets for deployment seem to focus on similar projections
37. Google is one of the biggest companies involved in artificial intelligence research, ----.
A) as artificial intelligence is progressing rapidly
B) although it is by no means the only one
C) because such technology is expected to transform economies
D) so we have come a long way in developing machines that function autonomously
E) even if it now plays a part in everyday life

38. Micronutrient deficiencies, also known as hidden hunger, occurs ----.
A) but protein-rich diets are known to reduce the feeling of hunger
B) especially if you have a balanced diet
C) because little attention has been paid to such issues by the government
D) but they are essential for proper growth and development
E) when there is a lack of essential vitamins and minerals in a person's diet

39. Antarctica would raise global sea levels by at least 56 meters ----.
A) if all the ice sheets that cover it were to melt
B) since even small losses could have global effects
C) while the continent is described as remote and extreme
D) although global temperatures are close to 1.5°C warmer than pre-industrial times
E) even if it holds a staggering amount of water

40. Microsoft researchers have developed an image generator ----.
A) if the goal is to enhance image quality
B) that can create an image from scratch using text input
C) because the market share of the company is rising faster than expected
D) which can be used for processing extremely large documents
E) until computer algorithms automatically fix the flaws in distorted photos

41. Recent storm surges following hurricanes have demonstrated ----.
A) as climate change is likely to displace millions of people
B) as soon as huge waves breach flood defences
C) that rising sea levels are a future threat for densely populated regions
D) so that investment in weather prediction should not be neglected
E) whether storms cause significant damage and loss of life
42. Artificial intelligence is already transforming the world we live in, and it's going to facilitate further change in years to come.

A) Yapay zeka hali hazırda yaşadığımız dünyayı dönüştürdüğü için gelecekte çok daha fazla değişikliğe ön ayak olacak.

B) Yapay zekanın içinde yaşadığımız dünyayı değiştirmesiyle gelecek yıllarda daha da fazla değişiklik yapılması mümkün hale gelecek.

C) İçinde yaşadığımız dünya şu an bile yapay zeka tarafından şekillendiriliyor, ve gelecek yıllarda daha da fazla değişiklik yaşanması kaçınılmazdır.

D) Yapay zeka yaşadığımız dünyayı şimdiden dönüştürüyor, ve gelecek yıllarda daha da fazla değişiklik olanaçak.

E) Yapay zekanın günümüz dünyası üzerinde gerçekleştirdiği değişiklikler gelecek yıllarda daha da kapsamlı hale gelecek.

43. Stem cells have the capability to transform into any sort of specialized cell needed in the body.

A) Vücutta ihtiyaç duyulan herhangi bir hücre türüne dönüşebilen kık hücreler oldukça özelidir.

B) Kık hücreleri vücutta ihtiyaç duyulan herhangi bir özel hücre türüne dönüşme kabiliyetine sahiptir.

C) Kık hücreleri vücutunun özel hücre grubu yapan şey istenen hücre türüne dönüşebilme yetisidir.

D) Kık hücrelerin vücutta ihtiyaç duyulan herhangi bir hücre türüne dönüşebilmesini onlara özel kilar.

E) Kık hücrelerin vücutta ihtiyaç duyulan herhangi bir özel hücre türüne dönüşebilmektedir.

44. As the world's biggest gas exporter, Russia makes huge profits from distributing fossil fuels to Europe.

A) Rusya, Avrupa'ya fosil yakıtlar dağıtımı için dünyanın en büyük gaz ihracatçısı olmuş ve büyük kar elde etmiştir.

B) Rusya'nın en büyük gaz ihracatçısı olduğundan dolayı Avrupa'ya fosil yakıt dağıtımıktan büyük gelir elde eder.

C) Dünyanın en büyük gaz ihracatçısı olarak Rusya Avrupa'ya fosil yakıtı dağıtmaktan büyük kar elde etmektedir.

D) Avrupa'ya fosil yakıtları dağıtarak büyük karlar elde eden Rusya dünyanın en büyük gaz ihracatçılarından biri olmuştur.

E) Rusya'yı dünyanın en büyük gaz ihracatçısı yapan Avrupa'ya fosil yakıtları dağıtırken elde ettiği büyük gelirdir.

45. Chocolate, produced from seeds of the cacao tree, is one of the most popular flavors in the world.

A) Kakao ağacının tohumlarından elde edilen çikolata dünyadaki en popüler tatlardan biridir.

B) Kakao ağaçlarının çekirdeklerinden elde edilen çikolata türleri diğerlerinden daha fazla tercih edilmektedir.

C) Kakao ağacının tohumlarından elde edilen çikolata ürünlerinin daha fazla tercih edilmektedir.

D) Kakao ağacının tohumlarından elde edilen çikolata dünyadaki en tercih edilen tatlardan biri haline gelmiştir.

E) Çikolata kakao ağacının çekirdeklerinden elde edilir ve sonra dünyanın en tercih edilen lezzetlerinden birine dönüşür.
46. As with other psychological addictions, workaholics often cannot see that they have a problem.

A) İş bağımlıları aynı diğer bağımlılar gibi genellikle bir probleme sahip olduklarını anlayamazlar.

B) İş bağımlıları diğer psikolojik bağımlılıklar olduğu gibi genellikle kendilerinden kaynaklanan problemleri fark edemezler.

C) İş bağımlıların en temel problemi diğer bağımlılar gibi herhangi bir probleme sahip oldukları gerçeğini kabul edememeleridir.

D) Diğer psikolojik bağımlılıklar gibi iş bağımlıları genellikle bir probleme sahip oldukları göremezler.

E) Diğer psikolojik bağımlılıklarda olduğu gibi iş bağımlıları da kendi problemlerini fark etmekte başarısızdırlar.

47. While alcohol use is required to trigger alcoholism, the biological mechanism of alcoholism is uncertain.

A) Alkol kullanımının alkolizme yol açtığı bilinse de alkolizmin biyolojik mekanizması belirsizdir.

B) Alkolizmin tetiklemek için aşırı alkol kullanımını gerektirir, fakat yine de alkolizmin biyolojik mekanizması belirsizdir.

C) Alkolizmin altında yatan biyolojik mekanizma bilinmiyor, fakat alkol kullanımının alkolinde yol açmak için gerekli olduğu açıkça belirtdir.

D) Alkolizmin tetikleyen biyolojik faktör tam olarak bilinmese de alkol kullanımının alkolizmin tetiklediği konusunda şüphe yoktur.

E) Alkolizmin tetiklemek için alkol kullanımına gerek duyulsa da alkolizmin biyolojik mekanizması belirsizdir.

48. While alcohol use is required to trigger alcoholism, the biological mechanism of alcoholism is uncertain.

48. Dinozorların bir göktaşı çarpması tarafından 65 milyon yıl önce yok edildiğine yaygınca inanılmaktadır.

A) It is widely believed the dinosaurs were wiped out 65 million years ago by an asteroid strike.

B) As widely believed, dinosaurs may have been wiped out by an asteroid strike 65 million years ago.

C) Dinosaurs are believed to have been wiped out by an asteroid strike 65 million years ago.

D) There is a widespread belief that dinosaurs were wiped out by an asteroid strike 65 million years ago.

E) The belief that dinosaurs were wiped out by an asteroid strike 65 million years ago is widely popular.

49. Çok şiddetli oldukları gerçeğine rağmen, bilim adamları gama ışını patlamalarına neyi sebep olduğunu tam olarak bilmiyorlar.

A) Scientists do not exactly know the cause of gamma ray bursts despite the fact that their intensity is too high.

B) The cause of gamma ray bursts has remained a mystery to scientists in spite of their intensity.

C) Scientists are unaware of the thing that causes gamma ray bursts even though they are so intense.

D) Despite the fact that they are so intense, scientists don’t exactly know what causes gamma ray bursts.

E) Scientists have been perplexed by what causes gamma ray bursts even if they are so intense.
50. Meteorologists make use of atmospheric pressure and wind speed to be able to estimate the trajectories of approaching storms.

A) Meteorologists make use of atmospheric pressure and wind speed to be able to estimate the trajectories of approaching storms.

B) Meteorologists study atmospheric pressure and wind speed to predict the trajectories of future storms.

C) The future trajectories of storms can be calculated by meteorologists by studying atmospheric pressure and wind speed.

D) It is required for meteorologists to study atmospheric pressure and wind speed to predict the trajectories of future storms.

E) In order to predict the trajectories of future storms, studying atmospheric pressure and wind speed is necessary for meteorologists.

51. Tracking the migration of humans isn't easy, but genetics is helping us uncover new information at breathtaking speed.

A) Tracking the migration of humans isn't easy, but genetics is helping us uncover new information at breathtaking speed.

B) Even though tracking human migration isn't easy, genetics allows us to make breakthroughs at an unprecedented speed.

C) We have been able to uncover new genetic information at a significant rate despite the fact that human migration cannot be tracked easily.

D) Tracking the migration of human beings in an easy way is not possible, but genetics is helping us unlock the secrets at an unprecedented speed.

E) While genetics helps us gain new insight into human migration at breathtaking speed, it is still not easy to track it.

52. Differences among people, such as eye colour or hair colour, result from slight variations in our genetic code.

A) Individual differences among people such as eye and hair colour stem from the slight variations in our genetic code.

B) Differences among people, such as eye colour or hair colour, result from slight variations in our genetic code.

C) There are differences in eye and hair colour among people because of the slight variations in our genetic code.

D) Differences in eye and hair colour among people result from the tiny variations in our genetic code.

E) Slight variations in our genetic code can result in differences among people, such as eye and hair colour.

53. The secrets in our DNA will be easily revealed once technology advances.

A) The secrets in our DNA will be easily revealed once technology advances.

B) It will become far easier to unlock the secrets of our DNA with the advances in technology.

C) The secrets in our DNA will be gradually unlocked together with the advances in technology.

D) As technology advances, it's getting easier to unlock the secrets in our DNA.

E) It is the advances in technology that allow us to unlock the secrets in our DNA.
54. It is estimated that humans will use increasingly more plastic. Our consumption and the production of single-use plastics is out of control, with over 8 million tons of plastic entering the world's oceans every year. However, governments and companies around the world are not standing idly by as this problem worsens.

A) There are plans to rid the seas of plastic.
B) This growing problem threatens Earth's ecosystems in a serious way.
C) Global production and consumption of plastics should be completely banned.
D) Plastic has many qualities that make it attractive to use.
E) Plastics do not easily break down into simpler components.

55. Every time an airplane rises into the sky, something else also rises: the amount of carbon dioxide in our atmosphere. This figure is expected to double in the next decade as fuel efficiency struggles to keep up with rising demand. The contribution is so huge that experts suggest the best way to reduce your carbon footprint is to quit traveling altogether.

A) Aviation fuel for international flights is exempt from taxation and cheap.
B) In order to reduce the environmental harm of aviation, international cooperation is necessary.
C) Air travel is responsible for an estimated 2 to 3 percent of global carbon emissions.
D) In fact, aviation is a significant source of carbon dioxide emissions.
E) Aircraft engines generally combust fuel efficiently.

56. There is no known safe level of lead in a child's blood. In children it can lead to behavior and learning issues, stunted growth, and anemia. It can also cause premature birth and reduced fetus growth in pregnant women, and decrease kidney function in adults. But removing lead from polluted water sources can be challenging.

A) Water contaminated with lead is hazardous to human health, particularly for children.
B) The body stores lead in the teeth and bones.
C) Lead exposure is preventable in most cases.
D) People can become exposed to lead through many different sources.
E) Lead is known to produce a spectrum of injury across multiple body systems.

57. Titan is not the only moon in the Solar System with Earth-like qualities. Observations of Europa, an icy moon of Jupiter, have led some to believe it could potentially hold extraterrestrial life. The two space agencies will partner up with the goal of launching the mission in the following decade.

A) NASA plans to further explore ocean worlds in our solar system.
B) In terms of potential habitability, they particularly have almost all of the key ingredients for life.
C) Researchers believe that exploring these worlds is one of the best things we can do.
D) To explore the potential, NASA is even planning to send a lander to Europa; an effort supported by the ESA.
E) There are still many other icy bodies out there, just waiting to be explored.
58. ---- It's also an issue in space where a growing collection of space debris is orbiting our planet. From used rockets to fragments of obsolete satellites, millions of pieces of this space junk are not only cluttering up space, but also threatening our off-world operations.

A) Space debris threaten all working satellites.
B) Pollution isn't just a problem here on Earth.
C) Scientists are working on methods to combat the threat of space junk.
D) Space debris includes both natural and artificial particles.
E) There are many types of pollution in our environment.

59. Many cells in our body, such as those which make up our brain need to last us a lifetime. ---- One way is through a process called autophagy, which literally means self-eating, where damaged components are collected together and removed from the cell.

A) Cells group themselves together to make up the tissues and organs.
B) Whatever your age, your body is many years younger.
C) We hope that our brain continues to produce new cells throughout life.
D) Scientists aren't sure how many brain cells you lose each day.
E) To do this our cells have developed ways of protecting themselves.

60. (I) With each new advance, we get closer to solving the mysteries of space. (II) Fast radio bursts (FRBs) are extremely powerful and can generate as much energy as 500 million Suns. (III) However, they are also very short in duration, lasting just milliseconds. (IV) We know of about 30 FRBs, but the only one observed repeating its activity is FRB 121102. (V) This repetition has allowed researchers to determine that the signals are originating from a galaxy more than 3 billion light-years from Earth.

A) I    B) II    C) III    D) IV    E) V

61. (I) Twelve years ago in France, a team of surgeons successfully completed the first-ever face transplant procedure. (II) Unfortunately, seven years after the surgery, the patient's body rejected the transplant. (III) Rejection is likely to be a chronic issue with face transplantation. (IV) Since the rejection, the patient has been living without a suitable alternative. (V) In a risky move, surgeons have decided to attempt to transplant a second face, this time from a different donor.

A) I    B) II    C) III    D) IV    E) V

62. (I) Disorders of the brain pose the greatest economic health challenge. (II) In the UK alone they cost more than £100 billion pounds a year. (III) This is in part because they are very common. (IV) Yet we do not seek help until they become serious and chronic or relapsing. (V) In fact, we need to focus on improving brain health through monitoring and early detection.

A) I    B) II    C) III    D) IV    E) V
63. (I) Global bee populations are on the decline due to threats like fungicides and pesticides. (II) But honey bees in particular are plagued by another menace, a type of parasite called the Varroa mite. (III) Thus, protecting honey bees is critical to our own survival. (IV) These mites attach themselves to honey bees after making their way into a colony and proceed to suck the bees’ blood. (V) This not only shortens the bees’ lifespan, but also passes along diseases.

A) I B) II C) III D) IV E) V

64. (I) Greenhouse gas emissions are driving climate change more significantly than anything else. (II) The best way to reduce emissions related to air travel is to not travel. (III) Technology can help in this goal. (IV) Instead of traveling to conferences, workers can participate via livestream. (V) Training sessions and meeting can be conducted virtually, and shorter work trips can be completed via train or car instead of airplane.

A) I B) II C) III D) IV E) V

65. (I) About 7.5 billion years from now, the sun will exhaust its hydrogen fuel and switch to helium. (II) That will cause it to balloon into an enormous red giant. (III) Mars as well as Earth will be fried. (IV) We already have the technology to establish bases on the moon and Mars. (V) On the other hand, the once icy moons of Jupiter and Saturn will have become tropical water worlds — prime real estate for human colonies.

A) I B) II C) III D) IV E) V
Planet Earth is humankind’s biggest experiment. From the moment we figured out how to use fire and altered the land through farming, humanity turned the planet into an immense, long-term experiment of what happens when we tinker with the types and quantities of gases in the atmosphere. Recent advances in technology, along with the sheer number of humans alive today, sped up this experiment, and the initial results indicate that our impact may not be a positive one. Studies suggest it’s unlikely that humanity will be able to keep Earth’s average temperature from rising less than 2 degrees Celsius above pre-industrial temperatures, the oft-cited “tipping point” beyond which humanity cannot return. If that happens, the planet will be plagued by massive droughts, more frequent extreme weather, and catastrophic sea level rise; human populations will likely suffer due to widespread disease and increased famine.

66. According to the passage, human beings ----.

A) have fundamentally altered Earth’s systems to meet their own needs
B) try hard to preserve the balance on Earth
C) will soon run out of natural resources
D) have developed technologies to overcome climate issues
E) refrain from activities that may impact the climate

67. It can be understood from the passage that the Earth ----.

A) has always had fluctuating climate patterns
B) will eventually cool down as much as in its past
C) was in a state of equilibrium before the Industrial Age
D) has thrived faster together with human beings
E) is already suffering from devastating natural disasters

68. It can be concluded from the passage that ----.

A) advancing technology will help us save the Earth
B) we are centuries away from a significantly warmer Earth
C) human beings are on the verge of making the Earth uninhabitable for themselves
D) attempts to curb global warming have worked wonders
E) human beings are destined to go extinct before long
Renewable energy may not be completely replacing fossil fuels just yet, but society is warming to the idea of using solar and wind power in place of coal. In some parts of the world we’re already beginning to see the effects of such a paradigm shift: Last year, Britain began generating twice as much electricity from wind than coal. In the United States, solar and wind power accounted for nearly 95 percent of all new electricity capacity added last year. That success can also be partially attributed to the closures of fossil fuel plants. In the coming years, we’re sure to see renewable energy become a real competitor in the fossil fuel industry. It is predicted that the cost of renewable energy will experience a noticeable drop within 5 years, putting it on par with, or cheaper than, fossil fuels.

69. It can be understood from the passage that ----.

A) solar and wind power are still stigmatized in the society
B) fossil fuels are gradually being replaced with cleaner alternatives
C) the shift to renewable energy will be more challenging than expected
D) the fossil fuel industry cannot keep up with the rising demand
E) the prevalence of renewable energy has recently slowed down

70. It is clearly stated in the passage that both in Britain and the United States, ----.

A) investment in renewable energy is below the global average
B) reliance on fossil fuels has remained more or less the same as in the past
C) electricity consumption has escalated uncontrollably
D) coal is still the main source of energy in most industries
E) the amount of electricity generated via renewables has surpassed that of fossil fuels

71. What could be the best title for the passage?

A) The Rise of Renewable Energy
B) The Urgent Need for Affordable Fuels
C) How The Fossil Fuel Industry Prevails
D) Continuously Growing Energy Demand
E) Solar Power vs. Wind Power
The interesting thing about humans is that while the Y chromosome is needed for normal human reproduction, many of the genes it carries are not necessary if you use assisted reproduction techniques. This means that genetic engineering may soon be able to replace the gene function of the Y chromosome, allowing same-sex female couples or infertile men to conceive. However, even if it became possible for everybody to conceive in this way, it seems highly unlikely that fertile humans would just stop reproducing naturally. Although this is an interesting and hotly debated area of genetic research, there is little need to worry. We don’t even know whether the Y chromosome will disappear at all. And, even if it does, we will most likely continue to need men so that normal reproduction can continue.

72. There is a chance that in the future ----. 
A) the secrets of the Y-chromosome will be fully uncovered
B) the ratio of females will be considerably higher than now
C) no humans will be needed for reproduction
D) reproduction without men may be possible
E) genetic causes of infertility will be overcome

Cevap D

73. According to the passage, the Y-chromosome ----.
A) will eventually disappear in both sexes
B) is still vital to the occurrence of normal conception
C) is not present in infertile individuals
D) is an insignificant part of the human genome
E) has gene functions that need to be explored further

74. It is stated in the passage that ----.
A) conception without men will dramatically alter the societal order
B) genetic research on the Y-chromosome is in its infancy
C) normal reproduction will probably remain unchanged despite the advances in genetics
D) the disappearance of the Y-chromosome will cause a significant population decline
E) scientists are worried about the future of the Y-chromosome
The shipping industry is constantly struggling against the accumulation of damaging bacteria, plants, and algae on wet surfaces like ship hulls. This accumulation process, called biofouling, also impacts submerged equipment like marine sensors, cameras, and even nets. Biofouling typically increases drag in the water, meaning ships have to burn more fuel to get from one place to another. Burning more fuel increases shipping and maintenance costs, often amounting to billions of dollars. To counteract this, shipping companies first tried to paint ship hulls with paint containing the chemical tributyltin. Tributyltin effectively killed just about any organism that sought to make a new home on the hull, but it was deemed incredibly toxic to the environment. The chemical was eventually banned worldwide, leaving shipping companies without a solution to their biofouling problem.

75. According to the passage, the shipping industry ----.
A) has an insatiable greed to profit more
B) is vulnerable to the effects of biofouling
C) has to renew the equipment very often
D) looks for alternative fuels to reduce costs
E) is on the brink of collapse due to biofouling

76. It can be inferred from the passage that ----.
A) alternatives to tributyltin are too costly for shopping companies
B) using tributyltin increases the financial burden of maintaining ships
C) major shipping companies rely on tributyltin despite the ban
D) the drawbacks of tributyltin outweigh its benefits
E) tributyltin can be engineered to be more environment-friendly

77. It can be concluded from the passage that ----.
A) biofouling cannot be prevented via any reasonable means
B) shipping companies have to invest in higher quality equipment to cope with biofouling
C) scientists are on the verge of coming up with a solution against biofouling
D) environmentalists prompt the authorities to shut down companies that use tributyltin
E) shipping companies ignore the negative impact they have on the environment
Our understanding of what happens after a nuclear exchange have developed over time. Early studies using simple models suggested that the results would be catastrophic — a severe and prolonged cooling of our planet's climate, dubbed nuclear winter. But subsequent calculations using more advanced models in the 1980s found that the aftermath might not be as bad as previously expected. However, a recent study examining a nuclear winter's impacts has suggested that the initial forecast was in fact more accurate. Moreover, the researchers determined that even a regional nuclear war could be enough to spark widespread crop failure, famine, and wider ecological effects for years. Even the scenarios involving a much smaller number of weapons are still dangerous to the climate, and therefore to us.

78. It is stated in the passage that a nuclear winter ----.
A) can be prevented via ordinary measures
B) would have far-reaching effects that may last many years
C) may wipe out the majority of the human population
D) will hardly impact the global climate
E) is not a threat to be taken seriously

79. It can be inferred from the passage that ----.
A) existing nuclear facilities are not monitored at all
B) there is little public awareness about the potential harms of nuclear weapons
C) the number of countries developing nuclear weapons has drastically risen
D) of all the threats, famine will be the worst outcome of a nuclear winter
E) staying away from nuclear war does not ensure protection from its cataclysmic effects

80. The author sets out to emphasize that ----.
A) even a regional nuclear conflict may turn out to have destructive consequences for all
B) the risks associated with nuclear power are being exaggerated
C) the climate of the Earth is too fragile
D) there is no need to be concerned about nuclear conflicts
E) only advanced nations have the potential to withstand the effects of a nuclear winter
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