解答範囲は，解答番号 1 から 35 までです。
＊印の語句には注があります。

Ⅰ　次の英文を読んで，後の問い（問1～問15）に答えなさい。

We have been told for decades that solar energy is key to helping us prevent climate change. But are solar panels actually good for the environment? Getting energy from the sun is one of the most eco-friendly ways to power homes, towns, and cities. ①With the cost of solar panels shrinking by over 80% in the past decade, more people can afford this eco-friendly lifestyle. However, there are also a handful of factors that can make solar panels bad for the environment.

Before we can enjoy solar energy, ②factories build panels by using a lot of electricity typically generated by fossil fuels. For example, in 2020, over 60% of China's electricity came from burning coal. ③Since most of the world's panels are made in China, the majority of the global solar panel supply is emitting a large amount of greenhouse gasses before they even start operating.

Fields full of panels absorbing sunshine are now a common sight in most countries, but ④this is not good for local wildlife. As ⑤the transition to renewable energy gains speed, it is predicted that the global competition for land will only get worse. And the use of farmland for energy purposes will indirectly increase land competition elsewhere to meet global food demand.

⑥Solar panels also require a lot of materials and complexly-named chemicals, many of which can be harmful. It is a long list of things that probably will not mean much to anyone. But if these solar cells are thrown into a landfill* when they stop working, they can pollute both the soil and drinking water, causing health and environmental issues. Since solar panels have an average life of 25-30 years, we are only just starting to see the ⑦consequences of solar panel waste. Back in 2016, it was estimated that there were 250,000 tons of solar panel waste globally. This is expected to grow to almost 10 million tons by 2050.

A typical panel is made of materials that can be recycled. ⑧If we reused these materials, we would decrease solar panels' greenhouse gas emissions by over 40%. Despite this, only a minority of countries recycle panels. Some countries have no plans for recycling. In other areas, such as Australia, there are a number of solar panel recycling services. However, most facilities can only recycle 20% of a panel, for example the metal frame. So far, only European manufacturers are required to collect and recycle solar panel waste.

However, ⑨solar energy's disadvantages are a small price to pay for a greener way of life in the long term. Fossil fuels are limited and rapidly running out. Solar energy, on the other hand, is renewable and limitless. As if that was not a big enough reason to make the switch to renewable energy, greenhouse gas emissions from solar panels are tiny compared with（ ⑩ ）of fossil fuels. If solar panel owners use their panels longer than three years, ⑪their overall carbon footprint* drops into the negatives, since they will have prevented more CO_2 from being released into the atmosphere than it takes to create them. Solar energy can reduce a home's carbon footprint by around one ton of carbon per year, depending on where you live.

In addition, solar panels are becoming much more eco-friendly over time. ⑫Experts are finding ways to protect nature on solar farms. Some landowners are placing solar panels on raised platforms to allow extra space for grasses and flowers.（⑬－ａ）will this help local wildlife,（⑬－ｂ）it can also improve soil health and water quality. As technology progresses, we are seeing the solar industry using more sustainable materials that are quite inexpensive and abundant. Nowadays, solar panel recycling is becoming more popular worldwide.

［注］ landfill:　埋立地
carbon footprint:　日常生活・業務にともなう二酸化炭素排出量

問1　下線部①の内容として，もっとも適当なものを一つ選びなさい。
解答番号 1
① 過去十年で，ソーラーパネルを利用する人口は増えていない。
② 過去十年で，ソーラーパネルの製造原価は上昇している。
③ 過去十年で，ソーラーパネルの価格は半額にまで至っていない。
④ 過去十年で，ソーラーパネルの製造費用は五分の一未満になった。

問2　下線部②の内容として，もっとも適当なものを一つ選びなさい。
解答番号 2
① A large amount of fossil fuel is used to build solar panels.
② Fossils are a raw material for building solar panels.
③ Burning a lot of fossil fuels is surprisingly eco-friendly.
④ Factories generate electricity by using solar panels.

問3　下線部③の内容として，適当でないものを一つ選びなさい。
解答番号 3
① ソーラーパネルは中国で買うのがもっとも安価である。
② ソーラーパネルの製造によって大量の温室効果ガスが排出される。
③ 中国では，ソーラーパネルの製造などのために大量の石炭を燃やしている。
④ 世界のソーラーパネルのほとんどは中国で製造されている。

問4　下線部④ this の内容として，もっとも適当なものを一つ選びなさい。
解答番号 4
① ソーラーパネルが動物たちによくないこと
② ソーラーパネルが太陽光を集め過ぎること
③ ソーラーパネルが見慣れた風景になっていること
④ ソーラーパネルを設置する土地が足りないこと

問5　下線部⑤の内容として，もっとも適当なものを一つ選びなさい。
解答番号 5
① 太陽光発電所の場所を移転すること
② ソーラーパネルを稼働させる時期を変えること
③ 化石燃料の使用を減らして太陽光発電を増やすこと
④ 化石燃料の新しい使い方を模索すること

問6　下線部⑥について，本文の内容と一致しないものを一つ選びなさい。
解答番号 6
① Solar panels consist of many materials.
② The names of the chemicals used in solar panels are familiar.
③ Solar panel waste can pollute the environment.
④ The materials of solar panels may damage human health.

問7　下線部⑦ consequences の意味にもっとも近いものを一つ選びなさい。
解答番号 7
① outcomes　② solutions　③ profits　④ causes

問8　下線部⑧について，現実がそうなっていない理由としてもっとも適当なものを一つ選びなさい。

解答番号 8

① because the metal frames of solar panels cannot be recycled
② because only 20% of countries have effective recycling plans
③ because not enough countries recycle solar panel materials
④ because countries such as Australia stopped their recycling services

問9　下線部⑨の意味として，もっとも適当なものを一つ選びなさい。

解答番号 9

① Renewable energy is disadvantageous from an economical viewpoint.
② Solar energy requires a tiny, early investment.
③ Solar energy's demerits can be made up for in the long run.
④ The price for a greener lifestyle is too high.

問10　空所⑩に入れるのに，もっとも適当なものを一つ選びなさい。

解答番号 10

① this　② what　③ which　④ those

問11　下線部⑪の理由として，もっとも適当なものを一つ選びなさい。

解答番号 11

① ソーラーパネルを使い続けると，パネルそのものから排出される二酸化炭素の量が減るから
② ソーラーパネルを作るときに排出される二酸化炭素の量が，パネルが削減できる二酸化炭素の量より多いから
③ ソーラーパネルを一定期間以上使うと，使わない場合に比べて，二酸化炭素の排出量を抑えられるから
④ ソーラーパネルを使っても，地球上の二酸化炭素の総量をほとんど削減できないから

問12　下線部⑫の意味として，もっとも適当なものを一つ選びなさい。

解答番号 12

① 専門家たちは，太陽光発電所内で植物を育てる方法を研究している。
② 専門家たちは，太陽光発電所と自然が共存できる方策を模索している。
③ 専門家たちは，太陽光発電所のおかげで自然が豊かになると信じている。
④ 専門家たちは，太陽光発電所内で自然を保存するのは不可能だと考えている。

問13　空所⑬－aと⑬－bに入れるのに，もっとも適当な組み合わせを一つ選びなさい。

解答番号 13

① a Either　b or　② a Neither　b nor
③ a If only　b and　④ a Not only　b but

問14　本文の内容と一致しないものを一つ選びなさい。

解答番号 14

① Solar panels will no longer be available in China in the future.
② Solar panels have become less expensive in the past 10 years.
③ Solar panels on raised platforms can improve soil health.
④ Solar panel recycling is increasing around the world.

問15　本文の表題として，もっとも適当なものを一つ選びなさい。

解答番号 15

① Are Solar Panels Good for the Environment?
② Who Is Recycling Solar Panel Waste?
③ Is the Sun's Energy Really Unlimited?
④ Will Solar Energy Affect Wildlife?

Ⅱ　次の英文を読んで，後の問い（問1～問5）に答えなさい。

He's a familiar face around Japanese neighborhoods — a cartoon boy with helmet-like hair and enormous black eyes. Oh, no! He is carelessly running out into traffic. Known as *tobidashi-boya*, or "Running Boy," these cartoon-like signs have become a way for towns to protect children from being hit by cars along narrow roads in Japan.

①Running Boy was born in 1973, several years after road deaths in Japan had reached an all-time high. A social welfare office in Shiga Prefecture asked a local sign maker for a low-cost solution. Wooden Running Boy signs were soon appearing along school routes. At first, Running Boy appeared on rectangular signs, but eventually his image was cut out to appear with no background. These signs warn drivers to proceed with caution as children may suddenly appear.

②Running Boy variations quickly spread across Japan, particularly in rural areas. Some were wood and some were plastic. Some were made by hand and others in factories. There were also Running Girl versions among others. Running Boy goods are available for fans to buy at stores, and many websites are devoted to this character. Running Boy is not just a traffic safety hero, he is a cultural icon. Still, few areas can match Higashiomi, which is said to have the largest number of Running Boys in Japan.

③Over the decades, Japan's once-dangerous streets have become among the safest in the world for drivers. The factors that have helped are the use of seat belts, airbags, and better vehicles, not to mention the development of sidewalks, crosswalks, and traffic lights. Traffic deaths have dropped from their high in 1970 to all-time lows. Even so, pedestrians and cyclists are still often killed, accounting for about half of all road deaths.

④For all of Running Boy's enduring popularity, there is no clear proof the signs work. A 2017 report on residential road safety did not even

mention Running Boy signs. An expert at Saitama University says that, "Putting up safety alert signs honestly isn't that effective," adding that drivers quickly get used to the signs and stop noticing them. "But people think there are no alternatives to Running Boy signs. That's why we still have so many pedestrian accidents."

⑤ The U.S. also has similar warning signs, available online, and they have spread widely across residential neighborhoods. However, traffic engineers there have long argued that the best ways to reduce dangerous driving are methods such as narrowing roads at intersections, building bike lanes, and installing speed bumps. Yet Japan's streets are already narrow and crowded; many of them are barely wide enough for a car to slip through because they originated in an era when the main form of transportation was two legs. This being the case, perhaps the best way — for now the only way — to get drivers to slow down is Running Boy. Japan may need Running Boy as much as ever.

問1　下線部① Running Boy was で始まる段落の内容と一致するものを一つ選びなさい。

解答番号 16

① The new sign appeared in the year the number of road deaths was the highest.
② A local firm produced Running Boy signs after a request from an office in Shiga Prefecture.
③ The rectangular signs were immediately replaced with the ones without a background.
④ Running Boy signs were used to disturb the concentration of drivers.

問2　下線部② Running Boy variations で始まる段落の内容と一致するものを一つ選びなさい。

解答番号 17

① There were few Running Boy signs in urban areas because they did not have enough factories.
② Higashiomi is also the place where the Running Girl version was born.
③ You have to use an official website if you want to buy Running Boy goods.
④ Running Boy became popular enough to be both a traffic safety hero and cultural icon.

問3　下線部③ Over the decades で始まる段落の内容と一致するものを一つ選びなさい。

解答番号 18

① 日本の道路が世界で最も安全なものの一つになるまでに，およそ10年かかった。
② 安全な道路環境の達成に関して，歩道や信号機などの整備の効果は小さかった。
③ 交通死亡者数は1970年をピークに減少し，史上最も少ない水準になってきている。
④ 今なお交通死亡事故のおよそ半分が，子どもと自転車の事故で占められている。

問4　下線部④ For all of で始まる段落の内容と一致しないものを一つ選びなさい。

解答番号 19

① 飛び出し坊やは今なお普及しており，事故の減少に効果があることが実証されている。
② 道路の安全に関わる2017年の報告では，飛び出し坊やについて取り上げられていない。
③ 飛び出し坊やは，すぐに運転手への警告の役割を果たせなくなると述べられている。
④ 専門家によると，飛び出し坊やに代わるものがないと考える人々もいる。

問5　下線部⑤ The U.S. also で始まる段落の内容と一致しないものを一つ選びなさい。

解答番号 20

① You can purchase Running Boy-like signs on the Internet in America.
② Experts think that it is effective to create street conditions that force drivers to slow down.
③ Many of the streets in Japan were formed mainly for people to walk to their destination.
④ The solutions used in America can be easily applied to the roads in Japan.

Ⅲ

A　次の会話文を読んで，(　　) 内に入れるのに，もっとも適当なものを一つ選びなさい。

(1) A: Is this the new e-Phone 12?
B: No, it's an e-Phone 9.
A: Oh, I see. (21)
B: They don't really change.

解答番号 21

① Why do you ask?
② Why do you own them?
③ It looks like a new design.
④ It looked like an old type.

(2) A: We're out of coffee beans.
B: (22)
A: When will they arrive?
B: They usually come fast.

解答番号 22

① Only you are.
② Let's come back.
③ I ordered some online.
④ They were traveling around.

(3) A: Did you go to the musical?
B: Yes, I loved it.
A: (　23　)
B: That's right. The group has existed for 10 years.

解答番号 23

① I went as early as I could.
② I think it was just OK, too.
③ I heard it was a special event.
④ I thought that it would be longer.

(4) A: Where did you go yesterday?
B: I went to see a new gym. (　24　)
A: So you liked it and signed up?
B: Yeah. It's big, not crowded, and reasonable.

解答番号 24

① But it was old.
② I enjoy watching them.
③ When I arrived, it had closed.
④ And I stayed and exercised for an hour.

(5) A: Look at these New Year's cards!
B: You bought them at a store?
A: (　25　)
B: You made them yourself?

解答番号 25

① No, I saw them there.
② No, I did something creative.
③ Yes, it's New Year's Eve.
④ Yes, it was hard finding them.

B　次の会話文を読んで，(　　) 内に入れるのに，もっとも適当なものを下の選択肢①～⑧の中から一つずつ選びなさい。(同じものは一度しか使えません。)。

解答番号は 26 から 30 までです。

A: Welcome back. Why is your bicycle so muddy?
B: It's such a nice day. I was cycling along the river.
A: I see. (　26　)
B: I was following a trail used by construction trucks on weekdays.
A: Sounds like the perfect Sunday adventure. (　27　)
B: I'm not sure, but farther up the river, they are building some bridges.
A: There's a lot of construction nowadays.
B: Did you fix the garden hose? (　28　)
A: Yeah. (　29　)
B: OK. And after that I will take a shower.
A: (　30　) Put them in the washing machine.

① What are they building?
② How fast were you going?
③ Can I go with you next time?
④ Go ahead and use it.
⑤ And your clothes are dirty, too.
⑥ I want to spray the mud off my bicycle.
⑦ Do you know what day of the week this is?
⑧ But I still don't understand why it's so dirty.

Ⅳ　[　　] 内の選択肢によって空所を埋め，日本文の意味を表す英文を作るとき，○印の空所にくるものは何ですか。その選択肢の番号をマークしなさい。
(文頭にくる語も小文字で始めてあります。)

(1) マイクはまもなくニューヨークへ旅立ちます。

解答番号 31

It will not ＿＿ ＿＿ ＿＿ ○ ＿＿ ＿＿ ＿＿ ＿＿ New York.

[① before　② to　③ long　④ his　⑤ be　⑥ journey　⑦ Mike　⑧ begins]

(2) 私は招待客と話をするだけでよかった。

解答番号 32

＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ○ ＿＿ ＿＿ the guests.

[① was　② I　③ do　④ all　⑤ with　⑥ talk　⑦ to　⑧ had]

(3) コーチは，練習中であっても決して諦めず常にベストを尽くすように，私たちに伝えた。

解答番号 33

Our coach told ＿＿ ＿＿ ＿＿ ○ ＿＿ ＿＿ ＿＿ ＿＿ best even during practice.

[① to give　② our　③ and　④ never　⑤ try　⑥ us　⑦ up　⑧ always]

(4) 彼らは急な坂の上に建っているその家を買うつもりだ。

解答番号 34

＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ○ ＿＿ ＿＿ a steep slope.

[① to　② they　③ the house　④ buy　⑤ planning　⑥ on　⑦ built　⑧ are]

(5) 彼ほど地域経済に貢献した選手は他にいない。

解答番号 35

＿＿ ＿＿ ＿＿ ＿＿ ＿＿ ○ ＿＿ ＿＿ the local economy as he has.

[① contributed　② other　③ to　④ player　⑤ much　⑥ as　⑦ no　⑧ has]