

1 Answer questions (1) ~ (5).

(1) Choose the sentence that best fits the blank at the start of the following passage.

[] Investments in renewables during the year were more than double the amount spent on new coal and gas-fired power plants, the Renewables Global Status Report found. For the first time, emerging economies spent more than the rich on renewable power and fuels. Over 8 million people are now working in renewable energy worldwide. For a number of years, the global spend on renewables has been increasing and 2015 saw that arrive at a new peak according to the report.

- a . In 2015, solar, wind and hydropower projects started to lose steam for the first time in history.
- b . New solar, wind and hydropower sources were added in 2015 at the fastest rate the world has yet seen.
- c . In 2015 emerging economies spent record amounts of money on new coal and gas-fired power plants.
- d . The Renewables Global Status Report contains published data on renewable projects for the last 15 years.

(2) Choose the word that best fits the blank at the end of the following passage.

Deep in the island archipelagos* on the Andaman Sea, and along the west coast of Thailand live small tribes called the Moken people, also known as sea-nomads. Their children spend much of their day in the sea, diving for food. They are uniquely adapted to this job — because they can see underwater. And it turns out that with a little practice, their unique vision might be accessible to any young person.

In 1999, Anna Gislen at the University of Lund, in Sweden was investigating different aspects of vision, when a colleague suggested that she might be interested in studying the unique characteristics of the Moken tribe. “I'd been sitting in a dark lab for three months, so I thought, ‘yeah, why not go to Asia instead,’” says Gislen.

(中略)

“Normally when you go underwater, everything is so blurry* that the eye doesn't even try to accommodate. It's not a normal reflex,” says Gislen. “But the Moken children are able to do both — they can make their pupils smaller and change their lens shape. Seals and dolphins have a similar [].”

注) *archipelagos: group of islands

*blurry: cannot be seen clearly

- a . adaptation
- b . addiction
- c . adoption
- d . attraction

- (3) Choose the word that is most similar in meaning to the underlined word in the following passage.

For many of the world's billions of tourists — those seeking to roam further afield* in search of unique experiences — adventure travel has become a cornerstone of the tourism experience. Indeed, as we shift towards a more globalized world, consumers are increasingly seeking authentic experiences and adventure tourism is no doubt one of the segments in high demand. For travellers, adventure tourism means an experience-based holiday; it means added value as they learn and interact with local populations and connect with their core values.

注) *afield: far away

- a . benefit
- b . focus
- c . journey
- d . piece

- (4) Choose the sentence that is NOT true according to the following passage.

America's National Aeronautics and Space Administration (NASA) has successfully inflated* a new, experimental room for crew members to use in space. The inflatable pod is now an extension to the International Space Station (ISS). It is roughly four metres long and 3.2 metres wide. It took three days to fully inflate. ISS crew members now have to wait a week before entering it. NASA engineers must first ensure it is airtight. The blow-up compartment is part of a test on the feasibility of inflatable accommodation on the Moon and Mars, and of orbiting space hotels. NASA paid \$17.8 million for the demo capsule. It hopes this initial test will lead to bigger inflatable rooms at the space station.

注) *inflated: filled with air

- a . The new inflatable pod must not leak air.
- b . The new experimental room has a floor area of approximately 12.8m².
- c . Blow-up compartments are often used in space for accommodations.
- d . America's NASA funded the demo capsule.

- (5) Choose the title that best represents the main idea of the following passage.

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注) *colliding: hitting with strong force

*zinc: a chemical element (Zn)

*bismuth: a chemical element (Bi)

- a . International Union discovers new element
- b . Super heavy synthetic elements to be named after countries
- c . U.S.-Russian scientists discover new element before Japanese
- d . New atomic element found by Japanese scientists

[出典]

- (1) “Renewable energy surges to record levels around the world”, Matt McGrath, June 1, 2016, BBC,
<http://www.bbc.com/news/science-environment-36420750>
- (2) “The ‘sea-nomad’ children who see like dolphins”, Helen Thomson, March 1, 2016, BBC,
<http://www.bbc.com/future/story/20160229-the-sea-nomad-children-who-see-like-dolphins>
- (3) Source: World Tourism Organization (2014), Global Report on Adventure Tourism, UNWTO, Madrid, pp. 6. © UNWTO, 92844/17/17.
- (4) Banville, Sean. “International Space Station gets air-filled extension.” *Breaking News English*. 31 May 2016. Copyright © 2016 Sean Banville. Used with permission.
- (5) “Japanese scientists name atomic element 113 ‘nihonium’”, Kyodo Staff Report, Jun 8, 2016, The Japan Times NEWS,
<http://www.japantimes.co.jp/news/2016/06/08/national/science-health/japanese-scientists-plan-name-atomic-element-113-nihonium/#.V1jh5P195GE>

2 Read the following article and answer questions (1) ~ (5).

- [1] The world's longest and deepest rail tunnel is to be officially opened in Switzerland, after almost two decades of construction work. The 57 km (35-mile) twin-bore Gotthard base tunnel will provide a high-speed rail link under the Swiss Alps between northern and southern Europe. Switzerland says it will revolutionise European freight transport. Goods currently carried on the route by a million lorries a year will go by train instead. The tunnel will overtake Japan's 53.9 km Seikan rail tunnel as the longest in the world and push the 50.5 km Channel Tunnel linking the UK and France into third place.
- [2] German Chancellor Angela Merkel, French President Francois Hollande and Italy's Prime Minister Matteo Renzi will join Swiss officials at the grand opening. "It is just part of the Swiss identity," federal transport office director Peter Fueglistaler told Reuters news agency. "For us, conquering the Alps is like the Dutch exploring the oceans."
- [3] The project, which cost more than \$12 billion (£8.3 billion) to build, was endorsed by Swiss voters in a referendum in 1992. Voters then backed a proposal from environmental groups to move all freight travelling through Switzerland from road to rail two years later.
- [4] The completed tunnel travels up to 2.3 km below the surface of the mountains above and through rock that reaches temperatures of 46 degrees C. Engineers had to dig and blast through 73 different kinds of rock, some as hard as granite and others as soft as sugar. More than 28 million tonnes of rock was excavated. Nine workers died during the work. About 260 freight trains and 65 passenger trains will go through the tunnel every day.
- [5] Now the completed tunnel, delivered on time and within budget, will create a mainline rail connection between Rotterdam in the Netherlands and Genoa in Italy. When full services begin in December, the journey time for travellers between Zurich and Milan will be reduced by an hour to two hours and 40 minutes. Its trajectory* will be flat and straight instead of winding up through the mountains like the old rail tunnel and a road tunnel opened in 1980. About 260 freight trains and 65 passenger trains will pass through the tunnel in as little as 17 minutes.
- [6] The tunnel is being financed by value-added and fuel taxes, road charges on heavy vehicles and state loans that are due to be repaid within a decade. Swiss bank Credit Suisse has said its economic benefits will include the easier movement of goods and increased tourism.

[出典]

"Gotthard tunnel: World's longest and deepest rail tunnel opens in Switzerland", June 1, 2016, BBC,
<http://www.bbc.com/news/world-europe-36423250>

注) *trajectory: path

- (1) In which of the following paragraphs does the author compare different tunnels?
- a . paragraph 1
 - b . paragraph 2
 - c . paragraph 3
 - d . paragraph 4
- (2) In which of the following paragraphs does the author provide information about the construction process of the tunnel?
- a . paragraph 3
 - b . paragraph 4
 - c . paragraph 5
 - d . paragraph 6
- (3) Which of the following paragraphs outlines the many benefits of the new tunnel?
- a . paragraph 2
 - b . paragraph 3
 - c . paragraph 4
 - d . paragraph 5
- (4) What is the difference in length between the Gotthard base tunnel and the second longest tunnel?
- a . about 3 km
 - b . about 7 km
 - c . about 50 km
 - d . about 57 km
- (5) According to the author, how much time can we save travelling from Zurich to Milan using the new Gotthard base tunnel?
- a . 17 minutes
 - b . 40 minutes
 - c . 1 hour
 - d . 2 hours and 40 minutes

3 Follow the directions and write complete sentences in English.

- (1) Write a question to complete the conversation below.

A : Hello, Shun. I haven't seen you in a really long time.

B : I joined the theater club and have been busy practicing for our next performance.

A : I would love to go and watch. _____

B : It's this coming Thursday night.

- (2) Write a question to complete the conversation below.

A : Have you been to the new bakery just next to campus? The croissants are great!

B : I haven't tried it. Maybe I will go tomorrow morning. _____

A : I'm not sure, but quite early I think.

- (3) Write a question to complete the conversation below.

A : Do you have time for a run on Saturday or Sunday?

B : Sorry, I start working at my new part-time job this weekend.

A : _____

B : No, I will work only on weekdays. This weekend is just training.

- (4) Write a complete sentence to answer the following question using the information written in Japanese.

A : How often do you need to change the battery?

B : _____ [5 年に一度]

- (5) Write a complete sentence to answer the following question using the information written in Japanese.

A : How long will it take to walk to the bus station from here?

B : _____ [約 10 分間]

4 次の英文の要旨を，句読点も含め 100 字以内の日本語でまとめ，解答欄に書きなさい。

著作権の関係で問題文は掲載できません。

[出典]

“BUG BUSINESS”, Glenn Greenberg, TIME FOR KIDS, Edition 5-6, March 18, 2016, Vol.6.No.19, PP.4-5, 一部略

注) *palatable: 味が良い

5 次の英文を読んで、下の問いに答えなさい。

著作権の関係で問題文は掲載できません。

[出典]

Reynolds, Garr. *The naked presenter Delivering Powerful Presentations With or Without Slides*. New Riders, 2011, PP.144-145.

英 語 10/10

注) *ephemeral: lasting for only a short time

*fanned: made to burn more strongly

*PBS: Public Broadcasting Service

- (1) 人が夢中になって学ぶようにさせるためには、何が必要であると述べているか。本文に即して、句読点を含めて 50 字以内の日本語で説明しなさい。
- (2) あなたが、これまでに夢中になって学んだことを一つ取り上げ、50 語程度の英語で説明しなさい。