東京理大　2012年

１

次の英文を読んで下の問に答えなさい。

As newer and more powerful cell phones are brought onto the market, old cell phones often end up being thrown away. Although large appliances such as ア are usually recycled, so-called e-waste ―― cell phones, computers and other small gadgets ―― often ends up in the trash.

This large accumulation of e-waste has led to the birth of a new industry, urban mining. Urban mining aims to reclaim or recover precious metals and rare earth minerals from old worn-out electronic goods, イ . Recently, in Japan, a campaign to recycle old cell phones resulted in 577,000 cell phones (あ)[1．being collected 2．having collected 3．collecting 4．collect] in just 100 days. These phones yielded 22 kilograms of gold, 79 kilograms of silver, 2 kilograms of palladium and over 5 tons of copper.

Urban mining is a growth industry around the world. In California since the state passed a law to encourage recycling, nearly 1 billion pounds of e-waste have (い)[1．being processing 2．been processed 3．processed 4．processing]. California now has 60 recyclers and 600 e-waste collectors. (う)[1．Seeing 2．To be seen 3．Seen 4．Have seen] the success of the California law, 24 other states in the United States have passed e-waste laws. These laws have helped the urban mining industry grow. John Shegerian, the ①CEO of Electronic Recyclers International says his company now processes 120 million pounds of e-waste a year.

Another driving force behind the growth of urban mining is the instability and uncertainty in the global supply of precious metals and rare earth minerals. China supplies 97% of the world’s rare earth minerals. However China has recently moved to limit these exports. As a result people have begun to look for other sources for these rare earth minerals.

Urban mining is not without its drawbacks. First of all, recovering materials from e-waste is expensive and requires a tremendous amount of energy. In addition, a lot of e-waste is sent to third world countries where people are forced to work in unsafe working conditions. Since e-waste can be toxic, it can be dangerous for both the workers and the surrounding environment.

What is (え)[1．to be needing 2．needed 3．to need 4．need] is responsible urban mining. Governments need to pass laws to increase safety. Secondly, consumers need to pay for their used products to be recycled in a safe and responsible way. Urban mining is expensive but if it’s done properly it will continue to be a growing industry for years to come.

(1) ア に入る適切な語句を下の選択肢1～4からひとつ選び，その番号を解答用マークシートにマークしなさい。

1 bicycles and tires

2 cars and tractors

3 couches and chairs

4 refrigerators and air conditioners

(2) 下線部①のCEOは日本語で「最高経営責任者」という意味だが，略せずに書いた場合の正しい表現を1～4からひとつ選び，その番号を解答用マークシートにマークしなさい。

1 Corporate Economic Organizer

2 Chief Executive Officer

3 Central Enterprise Observer

4 Company Elite Official

(3) イ に入る適切な語句を下の選択肢1～4からひとつ選び，その番号を解答用マークシートにマークしなさい。

1 delivering appliances to the needy

2 giving gold as a great gift

3 mining metals from the earth

4 turning trash into treasure

(4) [ ]で囲まれた(あ)～(え)それぞれについて，適切な語形を1～4から選び，その番号を解答用マークシートにマークしなさい。

(5) 次のA群，B群から本文の内容と一致する文をひとつ選び，その番号を解答用マークシートにマークしなさい。

A群

1 The number of newer cell phones is so huge that their recycling procedure is always behind schedule.

2 Legal support from state governments has been one of the incentives that have expanded the urban mining industry.

3 The US government has already given up its efforts to force states to adopt recycling laws.

4 The new state laws have led to a large accumulation of e-waste, which includes cell phones, in the trash and garbage of urban cities.

B群

1 People have long known that e-waste would become a highly profitable industry and as a result have started to recycle their cell phones.

2 The 577,000 recycled cell phones produced a total of 22 kilograms of gold, which was more than one third the amount of palladium produced by those same phones.

3 China’s decision to limit exports of rare earth minerals has increased concerns about the supply of these minerals, which has resulted in a drive to look for other sources for rare earth minerals.

4 Because e-waste can be toxic to workers, people living in third world countries urged governments to search out other sources for their precious metals and rare earth minerals.