# **克**

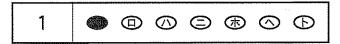
# 注 意

- 1. 問題は全部で12ページである。
- 2. 解答用紙に氏名・受験番号を忘れずに記入すること。(ただし、マーク・シートにはあらかじめ受験番号がプリントされている。)
- 3. 解答はすべて解答用紙に記入すること。
- 4. 解答用紙は必ず提出のこと。この問題冊子は提出する必要はない。

## マーク・シート記入上の注意

- 1. 解答用紙(その1)はマーク・シートになっている。**HB**の黒鉛筆または シャープペンシルを用いて記入すること。
- 2. 解答用紙にあらかじめプリントされた受験番号を確認すること。
- 3. 解答する記号・番号の を塗りつぶしなさい。○で囲んだり×をつけたり してはいけない。

解答記入例(解答が イのとき)



- 4. 一度記入したマークを消す場合は、消しゴムでよく消すこと。×をつけても 消したことにならない。
- 5. 解答用紙をよごしたり、折り曲げたりしないこと。

Viewing Stanley Kubrick's 2001:A Space Odyssey in the year 2010 is a depressing experience. According to this 1968 movie, by now we were supposed to have moon colonies and regular passenger service on space planes. And anyone who struggles with automated receptionist messages or programmable televisions knows that today's computers are just as psychotic as HAL 9000, only dumber.

We like to believe we live in an era of unprecedented change: technological innovation is proceeding at a rate with no parallel in all of human history. The information revolution and globalization are radically disruptive. Just as Barack Obama would like to be a transformational President, so the rest of us like the idea that we live in a thrilling epoch of transformation. But the truth is that we are living in a period of stagnation.

Surprisingly, this stasis is most evident in an area where we assume we are way ahead of our predecessors: technology. In fact, the gadgets of the information age have had nothing like the transformative effects on life and industry that indoor electric lighting, refrigerators, electric and natural gas ovens and indoor plumbing produced in the early to mid-20<sup>th</sup> century. Is the combination of a phone, video screen and keyboard really as

Stanley Kubrick's 2001:A Space Odyssey スタンリー・キューブリック監督による映画 『2001 年宇宙の旅』

programmable (コン ピュータの)プログラ ムを組める psychotic (強度の)精 神病にかかった unprecedented 前例 のない disruptive (進歩など を)阻害する

stagnation 停滯 stasis 静止状態

predecessor(s) 前の 時代の人 gadget(s) (小さい) 機器 plumbing 配管(設備) revolutionary as the original telephone, the original television set or the original typewriter was?

Genuinely revolutionary innovations are rare, and when they appear, there is a long time lag before they begin to transform the economy and daily life. The steam engine was used for nearly a century to pump water from British before it was successfully applied to manufacturing and transportation. The gasolinepowered car was invented in the 1880s, but mass automobile use had to wait until the 1920s in the U.S. and the 1950s and '60s in Europe and Japan. There was a similar delay between the invention of the computer and the microprocessor and the widespread adoption of the PC in the 1990s and 2000s. Even if there are dramatic breakthroughs in nanotech or biotech tomorrow, we may not enjoy the benefits for decades, or generations.

Technology has been remarkably stagnant in the areas of transportation and energy. As energy expert Vaclav Smil has pointed out, global jet transportation relies on the gas turbine, which was developed in the 1930s, and global shipping uses the diesel engine, invented in the 1890s. The fastest commercial airliners ever to fly reside in museums. The most cost-effective forms of mass transit everywhere, except for a few dense urban areas, are buses and planes.

Whether the heat source is coal, natural gas or

stagnant 停滞した

transit 輸送

by a variant of the steam turbine that has been around since the 1880s. The wind turbine and the solar-thermal and photovoltaic technologies beloved by greens are old enough to qualify for Social Security. And these elderly technologies are limited to those privileged enough to live in industrialized countries. A substantial minority of the human race still derives heat and warmth from wood and dung.

In developing countries, the 21<sup>st</sup> century is likely to be the second age of the automobile. Everyone talks about China's money-guzzling high-speed-rail projects, but of far greater consequence is the less glamorous system of national highways it is building. Today there are nearly 668 million cars in the world; by 2050 there may be 3 billion. Many cars, perhaps most, will be powered by energy sources other than gasoline and may eventually come with robot brains connected to smart highways. But absent the appearance of the long-awaited flying car, the cars, buses and trucks of the future will probably be variations of today's automobiles.

We are often told that China will surpass the U.S. in a few decades and usher in a Chinese century. But China's growth model, like Japan's, is based on exports, and in a saturated global market in which American consumers are tapped out, the Chinese export machine may choke. Even if China

variant 形を変えた もの photovoltaic 光起電の green(s) 環境保護政 策支持者 Social Security (アメ リカの)社会保障 dung (特に家畜の)糞

money-guzzling 金を 浪費する

usher in 到来を告げる
saturated 飽和状態の
tapped out (金を)使
い果たした

continues to grow, the country will be far poorer in 13 terms of per capita income than the U.S., Europe or Japan for generations to come. In a decade or two, predictions about Chinese world domination may seem as quaint as those about Soviet global hegemony.

Let me offer some predictions of my own. predict that in the year 2050, the nation-state will still be the dominant form of political organization, with a few new nation-states added to the U.N. The U.S. will still be the dominant global economic and military power, even if China has a somewhat larger GDP because of its larger population. Most energy will still be derived from fossil fuels, and nuclear power will account for an increasing share of global electricity production, while wind and solar power will still be negligible. Most people will get from place to place by means of cars, buses, taxis and planes, not fixed rail. Thanks to biotech advances, people will live longer and healthier lives, and consequently the largest single occupation in 2050 will be nursing!

I know, that's a boring vision of the future compared with a Chinese century in which everybody is a genetically modified immortal who rides monorails and eats algae grown in skyscrapers. But hey, in the future, phones will be really cool.

per capita income 一人当たりの収入

quaint

白い hegemony 覇権 nation-state (民族)国 家

風変わりで面

GDP 国内総生産

negligible ごくわずか

genetically modified 遺伝子組み換えの immortal 不死身の人 algae < alga 藻

- [1] 下線部A, Bを日本語に訳しなさい。(解答用紙その2)
- [2] 1~7の質問に対しては英文の内容から判断し、また、下線部8~15の 質問に対しては前後関係から判断してもっとも適切と思われるものをひとつ 選び、その番号のところをマークしなさい。(解答用紙その1)
  - 1. According to the author, what do we like to believe?
  - (1) This is the nuclear age.
  - (2) This is the most optimistic world.
  - (3) This is the most productive society.
  - (4) This is the age of the most dramatic change.
  - 2. When revolutionary technological innovations appear, what is the problem?
  - (1) They seem to have a harmful influence on our society.
  - (2) They seem to have an unpredictable influence on our society.
  - (3) They do not seem to have a lasting influence on our society.
  - (4) They do not seem to have an immediate influence on our society.
  - 3. In what areas has technology developed the least?
  - (1) Nanotech and biotech.
  - (2) Transportation and energy.
  - (3) Computers and microprocessors.
  - (4) Household electronics.

- 4. What does jet transportation still require?
- (1) Global shipping.
- (2) The gas turbine.
- (3) The diesel engine.
- (4) The fastest commercial airplanes.
- 5. What is the author's prediction about China?
  - (1) The 21st century will be a Chinese century.
  - (2) China will surpass the U.S. in the near future.
  - (3) The population of China will decrease in the future.
- (4) China will not catch up with the U.S., Europe or Japan for generations.
- 6. According to the author's prediction, what will the world be like in the year 2050?
- (1) Nation-states will disappear by that time.
- (2) We will be making great use of wind and solar power.
- (3) The U.S. will still be the economic and military leader of the world.
- (4) Our main sources of energy will not be fossil fuels or nuclear energy.
- 7. What is the author's view of the future?
- (1) We will see the arrival of a Chinese century.
- (2) We will not witness such dramatic technological changes.
- (3) Each of us will play a more active role in peaceful uses of modern technology.
- (4) The rapid progress of science and technology will continue to be a hotly debated issue.

- 8. it
- (1) a long time lag
- (2) nearly a century
- (3) the steam engine
- (4) water from British mines
- 9. relies on
- (1) avoids
- (2) denies
- (3) needs
- (4) changes

### 10. cost-effective

- (1) raising the price as much as possible
- (2) investing a large sum of money regardless of the consequences
- (3) betting a large amount of money and achieving a great result
- (4) achieving the best possible profits or benefits in comparison with the money that is spent

#### 11. around

- (1) in existence
- (2) moving in circles
- (3) doing nothing useful
- (4) surrounding something

- 12. of far greater consequence
  - (1) much more influential
  - (2) much less influential
  - (3) much more rewarding
  - (4) much less rewarding
- 13. in terms of
  - (1) in contrast with
  - (2) in comparison with
  - (3) from the standpoint of
  - (4) for the benefit of
- 14. account for
  - (1) make up
  - (2) take away
  - (3) make way for
  - (4) take advantage of
- 15. by means of
  - (1) with regard to
  - (2) with the assistance of
  - (3) in response to
  - (4) in cooperation with

2 以下	) それぞれの定義に従って,指定された頭文字で始まる単語を書きなさ
	だし,解答は与えられた頭文字から書くこと)(解答用紙その3)
(解答例	
SOI	eone who is trained in science, especially someone whose job is to do
scien	ific research
→(s	) 正解(scientist)
1. the	unit of money used in the U.S. and several other countries such as
Cana	a, Australia, and Singapore
→ (d	)
2. an	object that can be used for hurting people or damaging property, for
exan	ole, a gun, knife, or bomb
→ (w	)
3. the	vehicles that are traveling in an area at a particular time
→(t	)
4. the	largest in amount, size, or number that is allowed or possible
$\rightarrow$ (m	)
5. a c	evice that produces electricity to provide power for clocks, cars, etc.
→ (b	)

3 次の会話文を読んで、以下の問いに答えなさい。

Maria: What are you up to, Kento?

Kento: I'm going to ( A ) my chemistry report today. After that I'm

going to (B) the library.

Maria: You've been working really hard lately.

Kento: Why did I ( C ) for this class? It ( D ) all my time.

Maria: You should ( E ) a little.

Kento: I know. Hey, is that your report?

Maria: You (F).

Kento: Professor Lewis gave you a 95!

Maria: That's right.

Kento: Some people have all the luck!

[1] 下の選択肢1~8の中から、上の空欄A~Fに入れるのに最も適切と思われるものを一つ選び、その番号のところをマークしなさい。(解答用紙その1)

1. sign up

5. got it

2. head for

6. take part

3. up to

7. hand in

4. takes up

8. loosen up

- [2] 次の文の中から会話文の内容と一致すると思われる文を4つ選んで、その番号のところをマークしなさい。(**解答用紙その1**)
  - 1. The two are university students.
  - 2. Kento has been studying a lot recently.
  - 3. Kento gave his teacher his report.
  - 4. Kento just came back from the library.
  - 5. Maria shows Kento his report.
  - 6. Maria thinks Kento needs to relax more.
  - 7. Maria and Kento both got a 95.
  - 8. Kento regrets taking chemistry.

4 次の日本語の文を表現するような英文を、与えられた書き出しを使って完成しなさい。(解答用紙その3)

インターネットを使って、その問題について調査し、分ったことを報告しなさ い。

Using...

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