1. 次の英文を読み、下の問に答えなさい。

The American space agency NASA is supporting new methods (1) (to / to / support / food in space / grow / astronauts) during (2) missions.

NASA recently announced the winners of a competition in which teams proposed ways to produce unusual foods in space.

The agency plans to send astronauts to the moon and Mars in the future. It also hopes to establish long-term bases in space. (3) To do this, NASA says it will need to find (4) food production systems to support human space travelers.

NASA's competition is called the Deep Space Food Challenge. The latest part of the challenge involved teams creating small, working models of food production systems designed for (5). The systems should require (6) resources and create (7) waste.

Judges from NASA chose eight winners. NASA invited all the winners to create full-size versions of their food production methods over the next year.

Amy Kaminski helped organize the competition for NASA's Space Technology Mission Directorate in Washington. Kaminski said (8) (pleased / the winners / to / she / announce / was).

One of the winners was Air Company of Brooklyn, New York. The company developed a system for turning air, water, electricity and yeast into food. The company says (9) (carbon dioxide / breathe out / the system / high-protein nutrients / astronauts / into / can turn / that) to support humans in space.

Air Company's co-founder and Chief Technology Officer is Stafford Sheehan. He told Reuters news agency that the yeast-based food is healthier than the drink Tang. Tang was a drink product that NASA astronaut John Glenn popularized in 1962 when he became the first American to orbit Earth.

Sheehan said he first developed his carbon-conversion technology as a way to produce high-purity alcohols for jet fuel, the alcoholic drink vodka and other products. He noted that the NASA competition led him to change his invention to produce a protein-rich mix for astronauts.

Sheehan said his product is similar to many protein shakes on the market. He compared its taste to that of seitan, a tofu-like food made from wheat gluten sometimes used as a substitute for meat. He said the product is "sweet tasting."

(VOA Learning English, "NASA Supports New Methods to Grow Food in Space" 出題のために一部改変した箇所がある。)

(注)

agency:機関 unusual:普通ではない Mars:火星 base:基地 organize:企画する

NASA's Space Technology Mission Directorate: NASA の宇宙技術ミッション本部 yeast: 酵母

co-founder:共同設立者 Reuters news:ロイター通信社 Tang:ドリンク剤の名称

popularize:普及する orbit:周回する high-purity:高純度の vodka:ウォッカ

seitan:食品の名称 substitute:代用

問1 次の日本語を参考に、下線部 (1) を正しい順番に並び替えなさい。 「宇宙飛行士を支えるために宇宙で食料を育てる」

問2 空所(2),(4)~(.7)の中に、次の中から最も適切なものを選び、記号で答えなさい。ただし、同じ記号は二度使えない。

ア. few イ. little ウ. effective エ. long オ. space

問3 下線部 (3)"To do this"の内容について,本文に基づいて日本語で説明しなさい。

問4 次の日本語を参考に、下線部 (8) を正しい順番に並び替えなさい。 「彼女は受賞者を発表できることに喜んでいた」

問 5 次の日本語を参考に、下線部 (9) を正しい順番に並び替えなさい。 「そのシステムは宇宙飛行士がはき出す二酸化炭素を高タンパクな栄養素に変えることができる」

- 問 6 本文の内容に一致するものには○を,一致しないものには×を答えなさい。
 - T. The winners of the competition came up with the ideas of making special foods in the ocean.
 - ✓. Stafford Sheehan is the co-founder and Chief Technology Officer of Air Company.
 - ウ. Tang is a yeast-based food product for a lot of animals living in space.
 - 工. Stafford Sheehan's carbon-conversion technology was initially developed to produce protein shakes.

次の会話の文脈を考えて、空所①~⑤に入る最も適切な文を、会話文の下に記載されている

選択肢から選び、記号で答えなさい。ただし、同じ記号は二度使えない。

A :	Oh, no.			
B:	(①)?		
A :	Today is the last day to pa	ay the electric bill, (2). Can you go to the bank?
B:	(3), but I have to	go to meet Mary at her offi	ce this afternoon.
A :	Please do me a favor.			
B:	OK. I could ask Tom. I th	hink he is off work unt	il tomorrow.	
·A:	Oh, could you? (4), and I don't want to be	late again.
B:	(5). I'll try to	reach him on his mobile pho	ne right away.

選択肢

2.

- T. but I'm too busy to do it
- ✓. We were late last month
- ウ. What's wrong
- 工. It should be no problem
- オ. I wish I could

3. 次の英文の空所に最も適切な語(句)を選び、記号で答えなさい。
(1) I'd like to make an () to have my hair cut this evening.
ア. opinion イ. reservation ウ. difference エ. appointment
(2) Please pay () to my instruction before you begin.
ア. attention イ. part ウ. business エ. purpose
(3) Don't forget () your umbrella with you tomorrow.
ア. take イ. taking ウ. to take エ. having taken
(4) As () as I saw her, I found that she was ill.
ア. soon イ. little ウ. far エ. much
(5) Ted was so () of darkness that he asked me to come with him.
ア. afraid イ. free ウ. innocent エ. indifferent
4. 次の各組の A, B がほぼ同じ意味を表すように、空所に最も適切な語を書きなさい。文頭は
大文字にすること。
(1) A: According to the weather forecast, it will rain this afternoon.
B: The weather forecast () that it will rain this afternoon
(2) A: This computer is better than that one in quality.
B: This computer is () to that one in quality.
(3) A: Let's go shopping tomorrow.
(3) A: Let's go shopping tomorrow. B: () we go shopping tomorrow?
B: () we go shopping tomorrow?
B: () we go shopping tomorrow? (4) A: I said to Jack, "Follow my advice."

5.	次の英文の空所に最も適切な語(句)を選び、記号で答えなさい。			
(1)	The government of Japan appealed () the people to save electricity.			
	ア. to イ. on ウ. for エ. with			
(2)	I prefer coffee () tea.			
	ア. to イ. than ウ. more エ. better			
(3)	She applied () the sales position.			
	ア. on イ. with ウ. for エ. in			
(4)	The restaurant () me \$50 for the dinner.			
	ア. cost イ. took ウ. charged エ. sold			
(5)	The company () bankrupt because of recession.			
	ア. is イ. was ウ. take エ. went			
(6)	The Tone river () down to the Tokyo bay before the Edo period.			
	ア. wound イ. switched ウ. jumped エ. shook			
(7)	My parents objected () my studying abroad.			
	ア. of イ. to ウ. for エ. about			
(8)	That movie turned () to be better than I had expected.			
	ア. off イ. on ウ. out エ. over			
(9)	She went out to look () a convenience store near here.			
	ア. up イ. down ウ. for エ. after			
(10)	() freezes at 0 degree Centigrade.			
	ア. Water イ. A water ウ. The water エ. An water			

- 6. 日本語を参考に、語(句)を並び替えて文を完成させなさい。文頭は大文字にすること。
 - (1) 彼が夕食に来られるかどうか知っていますか。 Do you know (can / to / he / whether / come) dinner?
 - (2) 彼はなぜ怒ったのですか。(angry/what/him/made)?
 - (3) 彼はインフルエンザで1週間寝込みました。 (the flu / in bed / kept / him) for a week.
 - (4) 彼は私に何時かと尋ねました。 He (what / me / asked / was / time / it).
 - (5) 時間よりも価値のあるものはありません。 (more valuable / than / is / time / nothing).