

平成30年度

群馬県立県民健康科学大学 診療放射線学部

社会人特別選抜試験問題

小 論 文

群馬県立県民健康科学大学

小論文試験問題 1

【設問 1】 次の文章を読んで、問題 1～ 問題 4 に解答しなさい。

[1] ロボットが私たちの日常生活の一部になる日も近い。ロボットに助けられ、私たちは老後も自力で生活し続けられるだろう。人間とロボットが共生する時代はもう始まっている。

Can robots solve the problems of an ageing society? Ongoing research suggests they can. Today's robots can take out the trash, help you walk and do the shopping. They can crack jokes, recognize emotions and even learn. Although fully functioning robot caregivers may be a long way off, roboticists and physicians predict that a new wave of advances in computerized robotic technologies will be available in coming years to help older adults stay at home longer.

It all started in Japan, where expanding lifespans and declining birth rates are causing an alarming drop in the working force and an increasing demand for caregivers. To address gaps in labour and care, the Japanese turned to one of the things they do best: technology. The world is following suit. [2] With people living longer than ever before, the European Union (EU) has been investing tens of millions of euros annually on robotic research for elderly care.

(中略)

[3] A major advantage of having a robot live with an elderly person is that it can get to know their habits, like how much they sleep or when they eat, so it can detect a potential problem and inform caregivers and the family. A virtual care network both encourages users to socialize and makes it easier to care for them. "This increases quality of life for both the elderly and their family, while reducing care consumption.", says Rodolphe Gelin, a robotics expert. (中略) He does not deny that a human nurse or family member offers better company, but he believes that, in our fast-paced society, this is not always possible. "It's better, and much safer, to have a robot than be alone."

(中略)

[4] Robotics are also being used to address gaps in a declining labour force. Tokyo's Haneda Airport is working with Japanese robotics and technology company Cyberdyne to equip its staff with robotic lumbar supports, so that older people can do the heavy tasks usually done by the physically young and strong, like luggage lifting.

国際標準化機構 (ISO) on-line news "Robots to the rescue!" by Maria Lazarte , 7 March 2017
<https://www.iso.org/news/Ref2169.htm> より抜粋・編集・一部改変

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小論文試験問題2

問題1 和文で記された下線部 [1] を英訳しなさい。
6点

問題2 下線部 [2] を和訳しなさい。ただし the European Union (EU) は単に EU としなさい。
4点

問題3 下線部 [3] について、ロボットによる高齢者ケアを人間（看護師や家族）が行う場合と比較しながら、Rodolphe Gelin 氏の見解を140字以上200字以下の日本語で要約しなさい。
6点

問題4 下線部 [4] について、「高齢社会において何がどのように役立つのか」が明確になるよう、100字前後の日本語で要約しなさい。
4点

小論文試験問題 3

【設問 2】 次の文章を読んで、問題 5～問題 7 に解答しなさい。

If you've got a rumbling in your tummy but little time or money, what could be better than a bento (boxed lunch) from the nearest convenience store?

But take a minute before you join the increasing number of people turning to fast-food fixes like konbini bento and read the label on the packaging; you may be surprised at just how many additives your meal includes. Take a typical bento, which might include rice, pork cutlet, hamburger steak, potato salad, omelet and sausage. A quick scan of the ingredients might read something like: flavoring, preservatives, antioxidants, thickener, sweetener, spices, color-enhancers, artificial coloring and others. If you rely heavily on konbini bento or other processed foods, this should raise some health concerns.

(a) Recent reports have suggested that food coloring may trigger allergies and color-enhancers may be carcinogenic. Even the plastic trays that konbini bento come in are believed to contain hormone-disrupting chemicals. While there is as yet no generally accepted scientific evidence for these concerns, changes to the nation's diet, the introduction of genetically modified foods and even recent cases involving contaminated food products have raised public vigilance over food safety. A survey of 134 nutrition students by Mukogawa Women's University alone found that 65 percent believe ingesting food containing additives may cause cancer.

But you needn't completely avoid cheap, packaged meals, according to Toshiki Matsuura, an associate professor at the university's Department of Food Science and Nutrition. "Many reports about the bad effects of food additives on the human body have been overstated," Matsuura said. He recommends that consumers do a little research on their own to learn more about which additives are bad for them and in which combinations. For example, while the nitrous acid in color-enhancers, when combined with secondary amine in fish, does create carcinogenic nitrosamines, this reaction can be nullified with the addition of vitamin C in the form of vegetables, he explained.

Meanwhile, he added, worried consumers should broaden their perspective. "It should be taken into account that the results of experiments conducted on animals or in test tubes do not accurately reflect the effects on humans," he said. "To become sick from color-enhancers, one would have to ingest 10,000 times the amount used in ham or sausage, which is just impossible." Still, to address food safety concerns, the Food Sanitation Law was strengthened in 1995. Until then, only synthetic chemical materials were regulated, but the revised law now covers so-called natural additives (now called existing food additives) as well. Under the law, there is a ceiling set for every additive used in food items, and, according to Matsuura, most items contain only between 5 and 10 percent of the maximum deemed safe for consumption.

If you're still worried, earlier this month convenience store chain Lawson, Inc., opened an experimental store in Jiyugaoka, Tokyo, based on the concept of "eating and living healthily" and, of course, conveniently. At Natural Lawson, as the store is called, the shelves are lined with fresh

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organic vegetables and fruits from Wagoen, a farm in Chiba Prefecture, as well as bento and onigiri rice balls. Ninety percent of the latter products include brown rice instead of white, and all of the bento have less additives than their counterparts sold at other stores. Junichi Ikeda is the mastermind behind the store and leader of the Natural Lawson project team. He said he came up with (b) the idea because his son suffered from asthma and allergies and he was looking for a practical way to improve his family's diet. "I wanted to offer customers food that they can eat without any worries," Ikeda said, "and that became the concept of the shop."

Still, Lawson, like its competitor stores, will continue selling standard bento, so if you find yourself roaming the aisles for a quick lunch, Matsuura of Mukogawa Women's University has these tips:

- * Choose foods with the least additives possible.

"As additives are basically extras that our bodies don't need, we should try to decrease our intake of them," he said.

- * Be selective in your intake of additives.

Ask yourself, Matsuura suggests, if it is really important that your ham is pink.

- * And, most importantly, educate yourself.

"There is no need to be unnecessarily fearful of food additives," Matsuura said. "The important thing is to be fully aware of what kind of additives are in the food you eat."

出展 BENTO BLUES, The added cost of convenience by Mami Maruko, The Japan Times, Jul 29, 2001 2017年8月28日確認

<http://www.japantimes.co.jp/community/2001/07/29/general/the-added-cost-of-convenience/>

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小論文試験問題5

問題5 (a)の下線部を和訳しなさい。5点

問題6 (b) the idea とは何をさしているのかを説明し、その根拠となったエピソードと、その idea から、どのようなものが生まれたのかを説明しなさい。5点

問題7 食品添加物の現状について、その是非も含め、自分の意見を述べなさい。
10点

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小論文試験問題 解答用紙 1

受験番号	氏名

問題 1

得点 1	
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問題 2

得点 2	
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注 意 事 項

- 1 問題用紙は表紙を含めて6枚、解答用紙5枚、下書き用紙2枚、裏表紙（注意事項記載）1枚です。
- 2 解答用紙の所定の欄に、必ず受験番号・氏名を記入してください。
- 3 解答は、すべて解答用紙に記入してください。下書き用紙に解答を記入しても、採点の対象とはしません。また、解答用紙の「得点欄」には何も記入しないでください。
- 4 問題用紙・解答用紙に印刷不鮮明や汚れ等がある場合は、無言のまま手をあげて、監督員の指示に従ってください。
- 5 試験中に質問や用便等の用件がある場合も、無言のまま手をあげて監督員の指示に従ってください。
- 6 試験開始後、30分間は途中退室を認めません。
30分経過後、途中退室する場合は、監督員の指示に従い、解答用紙を監督員に提出したのち退室してください。
- 7 問題用紙及び下書き用紙は持ち帰ってください。
- 8 不正行為や、他の受験者に迷惑となる行為を行った場合は、失格とすることがあります。