令和７年度（2025 年度）
長野県立大学 大学院 健康栄養科学研究科

冬季　選抜試験

英　語

（６０分）

注意事項

１　本試験では、英和辞典１冊の持ち込み参照を認めます。専門用語辞典及び電子辞書の持ち込みは認めません。
２　試験開始の合図があるまで、この問題冊子を開いてはいけません。
３　問題冊子は８頁あります。解答用紙は１枚あります。
４　試験開始の合図の後、まず、問題冊子、解答用紙の落丁、乱丁、印刷不鮮明等がないか確認し、気づいた場合は、手を挙げて監督者に知らせてください。
５　試験開始後、受験番号、氏名を解答用紙の所定欄（解答用紙 1 枚につき、受験番号 2 箇所、氏名 1 箇所）に記入してください。
６　試験開始後は、原則として、試験が終了し退出許可が出るまで退出できません。
７　解答用紙は持ち帰らないでください。
８　試験終了後、問題冊子および下書き用紙は持ち帰ってください。

設問　以下の文章は，European Commission（欧州委員会）の報告書の中で，Overweight obesity，Nutrition，Physical (in)activity が，Cardiovascular Disease および Cancer に及ぼす影響について触れた部分の抜粋である。下記文章を読んで，問 1～3 に答えなさい。なお、文中の*斜体文字*は人名である。

Cardiovascular Disease

Regular physical activity can help manage cardiovascular disease in individuals through improving blood pressure and cholesterol levels. A meta-analysis [注1] of 48 randomised controlled trials (RCTs) found that exercise-based rehabilitation after a heart attack can reduce mortality rates by 20% reduction in total mortality and 26% in cardiac mortality in patients enrolled in cardiac rehabilitation programs. In fact, levels of aerobic fitness could have greater impact on health outcomes from cardiovascular disease than the presence of obesity. A systematic review of international studies by *Fogelholm* looking at cardio-respiratory fitness (or physical inactivity) found that the risk for all-cause and cardiovascular mortality was lower in individuals with high BMI and good aerobic fitness, compared with individuals with normal BMI and poor fitness. (A)However, having high BMI even with high physical activity was a greater risk for the incidence of type 2 diabetes and the prevalence of cardiovascular and diabetes risk factors, compared with normal BMI with high physical activity.

Specific diets can contribute to primary and secondary prevention of, and health outcomes from, cardiovascular disease. A review of meta-analyses showed that following a Mediterraneanc diet [注2] of high fat intake could reduce cardiovascular morbidity and mortality, while *Ignarro et al.* found that diets high in fibre can reduce the risk of cardiovascular disease, and diets high in omega-3 fatty acids [注3] can reduce inflammation [注4] and prevent vascular calcification [注5].

Cancer

(B)International and national cancer research institutes have highlighted that the avoidance of weight gain can prevent the risk of some cancers. The World Cancer Research Fund [注6] estimates that a third of the most common cancers in high income countries, and roughly a quarter of cancers in lower income countries, could be prevented through healthier dietary behaviour, being physically active, and keeping a constant healthy weight.

For those who already suffer from cancer, physical activity may be associated with improved survival rates and lower risks of reoccurrence, but this has so far only been established by observational studies. This was identified by an expert panel, reviewing scientific evidence and best clinical practices on nutrition and physical activity recommendations for individuals diagnosed with cancer, that also found strong evidence that physical activity can positively impact physical functioning, fatigue and quality of life of cancer patients. This improvement in physical functioning was further identified by a systematic review and meta-analysis, which found that exercise of a moderate intensity for cancer survivors can reduce fatigue and improve mobility.

Among breast cancer patients in particular, physiotherapy as a form of physical activity can improve the recovery time after surgery. A systematic review of international research found that physiotherapy was found to be effective in improving outcomes such as range of motion and shoulder function,

especially when initiated early after surgery. Interventions that had supervised exercise activities achieved higher adherence than self-directed ones, and thus provided more benefits.

出典：EUROPEAN COMMISSION. Nutrition and physical activity guidelines for different populations. Written by ICF Consulting Services Ltd. May 2018. （一部抜粋）
https://health.ec.europa.eu/system/files/2019-01/2019_sciview_e_sr_en_0.pdf (November 21 2024)

注 1 meta-analysis：複数のランダム化比較試験の結果を統計的手法を用いて統合する手法
注 2 Mediterraneanc diet：地中海食（地中海式ダイエット）
注 3 omega-3 fatty acids：オメガ 3 脂肪酸
注 4 inflammation：組織の反応の一種で，炎症や腫れなどを指す
注 5 vascular calcification：血管石灰化
注 6 The World Cancer Research Fund：世界がん研究基金

問1 下線部 (A)を日本語訳しなさい。

問2 下線部 (B)を日本語訳しなさい。

問3 本文の内容を踏まえて，Overweight obesity, Nutrition, Physical (in)activity が Cardiovascular Disease および Cancer に及ぼす影響について簡潔に説明しなさい。