

BMSH4302 Introduction to Chronic Disease

Mock Paper 1: Revision Aid

Instructions

Duration: 1 hour.

This paper has TWO sections.

Section A: 20 multiple choice questions. Answer ALL questions. Each question is worth 1 mark. (20 marks)

Section B: 5 short answer questions. Answer TWO questions only. Each question is worth 15 marks. (30 marks)

Total marks: 50.

This is a revision aid. The format mirrors the live exam paper. Use it as a timed practice run wherever possible.

Section A: Multiple Choice (20 marks)

Choose the single best answer for each question. Each correct answer is worth 1 mark.

1. Which of the following best describes a chronic disease?

- a) A condition that is long-lasting, typically of more than three months duration, and usually cannot be cured
- b) A condition caused by an infection that resolves with antibiotics
- c) A condition that only develops in older adults
- d) A condition that can always be reversed with medication

2. Incidence is best defined as:

- a) The total number of people living with a condition at a given point in time
- b) The number of deaths attributable to a condition each year
- c) The number of new cases of a condition arising in a defined population over a defined time period
- d) The proportion of a population at risk of developing a condition

3. Which of the following is a non-modifiable risk factor?

- a) Smoking
- b) Physical inactivity
- c) Family history of disease
- d) Diet high in saturated fat

4. Pathology refers to:

- a) What happens in the body at tissue and cellular level as a result of disease
- b) The causes or origins of a disease
- c) The treatment of a disease
- d) The frequency of a disease in a population

5. In coronary heart disease, the underlying process is:

- a) Inflammation of the heart muscle caused by a virus
- b) An autoimmune attack on the cells of the heart
- c) Build-up of fatty deposits (atherosclerosis) in the arteries supplying the heart, restricting blood flow
- d) Sudden electrical disturbance of the heart's rhythm

6. Depression is best described as:

- a) A short period of sadness following a difficult event
- b) An overactive response of the immune system
- c) A persistent low mood and loss of interest or pleasure that interferes with daily life and lasts at least two weeks
- d) A condition that only affects women

7. Asthma is classified as:

- a) A restrictive lung disease caused by scarring
- b) An obstructive lung disease in which airway narrowing is reversible
- c) A vascular lung disease
- d) An autoimmune lung disease

8. The most significant modifiable risk factor for COPD in the UK is:

- a) Tobacco smoking
- b) Cold weather
- c) High dietary salt intake
- d) Lack of vaccination

9. In Type 1 diabetes, the underlying mechanism is:

- a) The body produces insulin but cells do not respond to it
- b) The immune system destroys the insulin-producing beta cells of the pancreas
- c) The pancreas produces too much insulin
- d) The liver fails to release glucose

10. Graves' disease causes:

- a) An underactive thyroid (hypothyroidism)
- b) Thyroid cancer
- c) No change in thyroid function
- d) An overactive thyroid (hyperthyroidism)

11. Insulin resistance refers to:

- a) The pancreas resisting the production of insulin
- b) Antibodies attacking insulin in the bloodstream
- c) The body refusing insulin injections
- d) Body tissues becoming less responsive to insulin, so more insulin is needed to move glucose into cells

12. Osteoarthritis is best described as:

- a) An autoimmune disease in which the immune system attacks joint cartilage
- b) A degenerative joint condition involving progressive loss of cartilage and changes to underlying bone
- c) A condition caused by a bacterial infection in the joint
- d) A condition that only affects the spine

13. A fragility fracture is best defined as:

- a) Any fracture occurring in a person over 65
- b) A fracture caused by a sporting injury
- c) A fracture that does not heal
- d) A fracture resulting from a fall from standing height or less, or from minimal trauma

14. Sarcopenia primarily affects:

- a) The cartilage of the joints
- b) Skeletal muscle mass, strength and function
- c) The bones of the spine
- d) The peripheral nerves

15. Multiple sclerosis is most commonly first diagnosed in:

- a) Children under the age of 10
- b) Young adults between approximately 20 and 40 years of age
- c) Older adults over the age of 70
- d) Newborns and infants

16. Parkinson's disease is caused by the loss of:

- a) Beta cells in the pancreas
- b) Myelin in the spinal cord
- c) Dopamine-producing neurons in the substantia nigra of the brain
- d) Bone density in the hip and spine

17. Comorbidity refers to:

- a) The most severe symptom of a single disease
- b) The presence of two or more long-term conditions in the same person
- c) A condition shared by family members
- d) A complication that develops within 24 hours of a diagnosis

18. Adipose tissue is now understood to be:

- a) An inert storage tissue with no metabolic role
- b) A type of muscle tissue
- c) A metabolically and hormonally active organ that releases signalling molecules influencing inflammation, appetite and metabolism
- d) A passive insulator that has no effect on chronic disease risk

19. Which of the following best reflects the role of physical activity in chronic disease management?

- a) Physical activity is contraindicated in most chronic conditions
- b) Physical activity only helps with cardiovascular disease
- c) Physical activity should only be advised once medication has failed
- d) Physical activity, appropriately adapted, is a core part of management for most chronic conditions and improves both physical and mental health outcomes

20. According to the IARC classification, processed meat is:

- a) Group 2A: probably carcinogenic to humans
- b) Group 2B: possibly carcinogenic to humans
- c) Group 3: not classifiable as to its carcinogenicity to humans
- d) Group 1: carcinogenic to humans

Section B: Short Answer (30 marks)

Answer TWO questions from the five below. Each question is worth 15 marks.

- Q1.** Choose ONE condition covered in this module.
- (a) In your own words, explain what the condition is and what causes it. [8 marks]
 - (b) Explain what happens in the body as a result of this condition. [7 marks]
- Q2.** Choose ONE condition covered in this module.
- (a) Identify one risk factor that can be changed (modifiable) and explain how it increases the risk of developing that condition. [8 marks]
 - (b) Identify one risk factor that cannot be changed (non-modifiable) and explain how it increases the risk of developing that condition. [7 marks]
- Q3.** Choose ONE condition covered in this module.
- (a) Explain how this condition can increase the risk of developing a condition in a different body system, and describe how this happens. [8 marks]
 - (b) Explain how living with more than one condition can affect a person's quality of life. [7 marks]
- Q4.** Autoimmune diseases are conditions where the immune system attacks the body's own healthy tissue.
- (a) Choose ONE autoimmune condition from this module. Explain what part of the body the immune system attacks and what effect this has. [8 marks]
 - (b) Choose a SECOND autoimmune condition from a different week of the module. Explain what part of the body the immune system attacks and what effect this has. [7 marks]
- Q5.** Choose ONE condition from this module that is relevant to your programme of study (Nutrition, Sports Therapy, or Exercise Science).
- (a) Explain how the condition can be managed through lifestyle, nutrition, or exercise approaches. [8 marks]
 - (b) Explain why understanding this condition matters for your future professional practice. [7 marks]

End of paper