**ST MARY’S UNIVERSITY**

**TWICKENHAM, LONDON**

BSc Degree Examination students registered for

Level **FIVE**

Title: **Aetiology of Chronic Disease**

Code: **HEP5005**

Semester: **RESIT**

Date: **01 July 2019**

Time: **13:30-15:30pm**

TIME ALLOWED: **TWO HOURS**

This paper is in **TWO** Sections.

**SECTION A:** Answer **ALL** multiple choice questions

**SECTION B:** Answer **FIVE** questions.

**Answer Section A questions on THIS paper – circle your answer for each of the questions**

**Regnum:**

**SECTION A**

Multiple Choice. Answer **ALL** questions**: (30 marks)**

1. Plaques and atherosclerosis are defined as …….. respectively
   1. Fatty deposits and clots
   2. Fatty deposits and thickening and hardening of the blood vessels
   3. Clots and thickening and hardening of the blood vessels
   4. Hardening of the arteries and bleeding
2. Which of the following physiological processes are affected during sleep?
3. Increased digestion processes and cell repair
4. Heart rate and blood pressure
5. Kidney function and temperature control
6. All of the above
7. Which of the following cells are transformed white adipocytes capable of generating heat?
   * + - 1. Brown fat cells
         2. Beige fat cells
         3. White adipocytes
         4. Subcutaneous adipocytes
8. Which of the following fat cells are thought to improve glucose tolerance and insulin sensitivity
   * + - 1. Brown fat and white fat cells
         2. Brown fat cells only
         3. Brown and beige fat cells
         4. White and beige fat cells
9. Hunger is signalled by:
10. Ghrelin only
11. Gastric contractions only
12. Gastric contractions and ghrelin
13. Ghrelin after a meal
14. Which of the following best describes the terms ‘leptin resistance’ and ‘insulin resistance’.
    * + - 1. The body’s inability to produce both leptin and insulin
          2. The body’s inability to produce leptin only
          3. The body’s inability to produce insulin only
          4. The body’s inability to recognise and respond to the presence of both leptin and insulin
15. Which of the following statements does not apply to the functioning of insulin?
16. Insulin is a peptide hormone released when blood glucose rises above 5mmol/l
17. Insulin is released in response to amino acids in the blood
18. Elevated fatty acids in the blood stream impair insulin secretion
19. Insulin converts liver stored glycogen into glucose
20. Which statement does not apply to strokes?
    1. Restriction of blood supply to the brain
    2. Restriction of blood supply to the brain, burst blood vessel in the brain
    3. Tissue damage with permanent loss of function
21. Restriction of blood supply to the heart
22. Which of the following is the correct definition for cardiovascular disease?
23. Blood vessels irregularity and diseases
24. A group of disorders of the heart and lungs
25. A group of disorders of heart and kidney
26. A group of disorders of the heart and blood vessels
27. Excess adipose tissue found centrally in the human body is responsible for releasing:
28. Free radicals and adipocytes
29. Free fatty acids
30. Cytokines (adipocytokines)
31. Free fatty acids and cytokines (adipocytokines)
32. Chronic Restrictive Pulmonary Disease is caused by:
    1. Inflammation and scarring (fibrosis) of the lungs
    2. Diseases affecting the respiratory muscles
    3. Diseases affecting the lung wall
    4. All of the above
33. Which of the following statements accurately describes the condition of emphysema?
    1. It is a chronic obstructive pulmonary disease where alveolar walls breakdown, reducing the total surface for gaseous exchange
    2. It is a chronic obstructive pulmonary disease with inflammation of air passages
    3. It is a chronic obstructive pulmonary disease with hyperreactive airways and chronic air passage inflammation
    4. It is a chronic restrictive pulmonary disease with reduced lung expansion
34. Asthma can be triggered by which of the following?
    1. House dust mites, pollution, animal fur
    2. Exercise and tobacco smoke
    3. Cold air and chest infections, anxiety
    4. All of the above
35. The two main causes of Chronic Kidney Disease are:
36. Diabetes and hypertension
37. Smoking and alcohol
38. Dehydration and exercise
39. Physical injury
40. The excretory function of the kidney controls:
41. Water content/ volume of the body
42. Acid –base balance in the body
43. Osmotic pressure in the body
44. All of the above

1. The first sign of diabetic chronic kidney disease is:
2. Protein in the urine
3. Glucose in the urine
4. Blood in the urine
5. Salt in the urine
6. Bone cells are deposited and made by;
7. osteoclasts
8. osteoblasts
9. calcium
10. white blood cells
11. Osteoarthritis caused by obesity or injury is called ;
12. Primary Osteoarthritis
13. Rheumatoid Osteoarthritis
14. Acute Osteoarthritis
15. Secondary Osteoarthritis
16. Deficiency of the neurotransmitter dopamine in the body is associated with;
17. Multiple Sclerosis
18. Arthritis
19. Osteoporosis
20. Parkinson’s Disease
21. Which of the following contribute to increased risk of developing to Multiple Sclerosis?
22. Caucasian Ethnicity
23. Viruses
24. Temperate climate
25. All of the above
26. Parkinson’s disease results in patients;
    1. Unable to control their movements
    2. Blindness
    3. Poor balance
    4. Poor concentration
27. Inflammation of one or more weight bearing joints is called?
28. Osteoporosis
29. Osteoarthritis
30. Arthritis
31. Acute inflammation
32. Osteoporosis defined as:
33. A disease that causes blocked pores
34. A disease that causes brittle bones
35. A disease that causes bones to become lax
36. A disease that causes shorter bones
37. Risk factors considered to contribute to the development of cancer include;
38. Age
39. Age and ultraviolet light
40. Cigarette smoke and age
41. Cigarette smoke, age and ultraviolet light
42. Where is the myelin sheath located?
43. Cartilage
44. Veins and arteries
45. Surface of endothelial layer
46. Axon of nerve
47. Metastasis is defined as;
48. The growth of cancer cells
49. The name given to benign tumours
50. The rapid growth of and invasion by cancer cells
51. The movement of small groups of cancer cells to another part of the body, via the bloodstream
52. Asthma primarily is due to;
53. obstructed airways
54. restricted airflow due to inflamed airways
55. reduced muscle function
56. all of the above
57. The body’s attempt to slow down metabolism in response to weight loss is called;
58. set point theory
59. energy Balance
60. satiation
61. homeostasis
62. Which of the following groups exhibit higher occurrences of multiple sclerosis
63. Caucasians in temperate climates
64. Caucasians in tropical climates
65. Afro Caribbean in temperate climates
66. Afro Caribbean in tropical climates
67. Demyelination of the nerves by viruses is thought to be one of the causes of
    1. Parkinson’s Disease
    2. Multiple Sclerosis
    3. Kidney disease
    4. Diabetes

**SECTION B**

Short answer questions.

Answer **FIVE** out of sevenquestions. Total marks available 70

(14 marks per question)

Each answer should include;

* Definition/explanation of the condition – **(4 marks)**
* Answering the question – **(8 marks)**
* Research to support answer **(2 marks)**

**Write the answers to Section B in an examination booklet provided**

1. Give the definition of the terms ‘obesity ‘and ‘overweight’ **(4 marks)**

Explain the effects of obesity on health **(8marks)**

Include reference to some research evidence**. (2marks)**

1. Explain the term cardiovascular disease, peripheral arterial disease, cerebrovascular disease **(4 marks)**

Discuss the risk factors associated with cardiovascular disease **(8 marks)**

Include reference to some research evidence.**(2marks)**

1. Define the term Chronic Kidney Disease **(4 marks)**

Discuss its aetiology and health implications **(8 marks)**

Include reference to some research evidence **(2 marks)**

1. Define Multiple Sclerosis and Parkinson’s disease **(4 marks)**

Explain the differences in aetiology and pathology between the two conditions. **(8 marks)**

Include reference to some research evidence.**(2marks)**

1. Explain the term cancer. **(4 marks)**

Discuss the risk factors associated with developing cancer. **(8 marks)**

Include reference to some research evidence. **(2marks)**

1. Explain the difference between Type 1 diabetes (insulin dependent diabetes) and type 2 diabetes (non-insulin dependent diabetes) **(4 marks)** Discuss the pathology of Diabetes II ( non – insulin dependent diabetes) **(8 marks)**

Include reference to some research evidence **(2marks)**

1. Define and explain the condition of osteoporosis **(4 marks)**

Discuss the main risk factors that can contribute to the development of this disease. **(8 marks)**

Include reference to some research evidence. **(2marks)**

**End of Examination**