

Multiple choice questions on

**BODY DEFENCE &  
IMMUNITY**

AND

**HOMEOSTASIS**

1. A foreign protein that enters our body is known as:

- a) antibody
- b) antibiotic
- c) antigen
- d) antiseptic
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2. What happens when pancreatic duct of a person is severed:

- a) He cannot digest food and his blood glucose level shoots up
- b) Neither his digestion nor his blood glucose level are affected
- c) His blood glucose level drops but his digestion is normal
- d) He cannot digest food but his blood glucose level is unaffected

3. The first line of body defence is represented by:

- a) lymphocytes
- b) biochemical defence
- c) antigens
- d) surface barriers.

4. Insulin was discovered by:

- a) J.J.R. McLeod
- b) Paul Langerhans
- c) Charles Best
- d) Frederick Banting

5. Eyes are protected from bacteria by tears which contains a factor:

- a) lysozyme
- b) mucus
- c) lysosome
- d) saliva

6. The Islets of Langerhans were discovered by:

- a) Frederick Banting
- b) Charles Best
- c) Paul Langerhans
- d) J.J.R. McLeod

7. Cancer cells and viruses are destroyed by:

- a) eosinophils
- b) natural killer cells
- c) basophils
- d) suppressor cells



8. Column 1 contains terms and column 2 their meanings. Match them correctly:

1. Terms	2. Their meanings
1. Glycogenesis	p. Conversion of glycogen to glucose
2. Glycogenolysis	q. Conversion of fats to glucose
3. Gluconeogenesis	r. Excretion of glucose in urine
4. Glycosuria	s. Conversion of glucose to glycogen

- a) 1-s, 2-p, 3-q, 4-r
- b) 1-p, 2-q, 3-r, 4-s
- c) 1-q, 2-r, 3-s, 4-p
- d) 1-r, 2-s, 3-p, 4-q

9. Column 1 shows type of immunity & column 2 shows examples. Match them correctly:

1. immunity	2. Example
1. Artificial passive	p. Vaccination
2. Natural active	q. Antiserum administered for snake bite
3. Artificial active	r. From mother to fetus through placenta
4. Natural passive	s. Fighting infections after suffering

- a) 1-p, 2-q, 3-r, 4-s
- b) 1-r, 2-p, 3-s, 4-q
- c) 1-s, 2-r, 3-p, 4-q
- d) 1-q, 2-s, 3-p, 4-r

- 10. Column 1 contains names of cell types of Islets of Langerhans and column 2 the hormones secreted by them. Match them:

1. Cell type	2. Hormone secreted
1. A cell	p. Pancreatic polypeptide
2. B cell	q. Glucagon
3. D cell	r. Insulin
4. F cell	s. Somatostatin

- a) 1-p, 2-q, 3-r, 4-s
- b) 1-q, 2-r, 3-s, 4-p
- c) 1-s, 2-r, 3-p, 4-q
- d) 1-r, 2-p, 3-q, 4-s

11. Interferon that protects healthy cells from viral infection, are released by:

- a) Lymph glands
- b) healthy cells
- c) virus infected cells
- d) Kupffer cells

12. When Benedict's reagent is added to the urine sample and heated, the colour of the sample changes to orange. It indicates:

- a) presence of albumin in the sample
- b) absence of glucose in the sample
- c) presence of glucose in the sample.
- d) absence of albumin in the sample.

13. The immune system represents:

- a) first line of defence & is specific
- b) second line of defence & is non-specific
- c) third line of defence & is non-specific
- d) third line of defence & is specific.

14. Which of the following is not a symptom of diabetes mellitus:

- a) Excessive hunger
- b) Excessive thirst
- c) Excessive urination
- d) Excessive salivation

15. Cellular immunity is represented by:

- a) eosinophils and neutrophils
- b) B lymphocytes and T lymphocytes
- c) basophils and monocytes
- d) natural killer cells & phagocytes



16. In a healthy person 100 ml of blood contains about 100 mg glucose. The amount of glucose present in his total blood is:

- a) 5 g
- b) 50 g
- c) 0.5 g
- d) 500 g

17. When memory cells respond to the same antigen again by quickly producing more memory cells and plasma cells, this is known as:

- a) primary immune response
- b) tertiary immune response
- c) secondary immune response
- d) specific body defence

18. Which one of the following is NOT a function of insulin:

a) It converts glycogen to glucose

b) It increases permeability of cell membrane to glucose

c) It initiates formation of hepatic glycogen

d) It increases oxidation of glucose in the cells.

19. Column 1 contains different types of lymphocytes and column 2 contains their functions. Match them correctly:

1. Cell type	2. Its function
1. Plasma cells	p. Kill virus infected cells
2. Helper cells	q. Produce antibodies
3. Cytotoxic cells	r. Stop activity of lymphocytes when infection is over
4. Suppressor cells	s. Help B lymphocytes to produce antibodies

- a) 1-p, 2-q, 3-r, 4-s
- b) 1-q, 2-s, 3-p, 4-r
- c) 1-r, 2-s, 3-p, 4-q
- d) 1-s, 2-p, 3-q, 4-r

20. A negative feedback is:

- a) A reaction in which the system reverses at first but doubles in the direction of the variable.
- b) A reaction that results in amplification of the output signal
- c) A reaction in which the system maintains the change
- d) A reaction in which the system reverses the direction of change

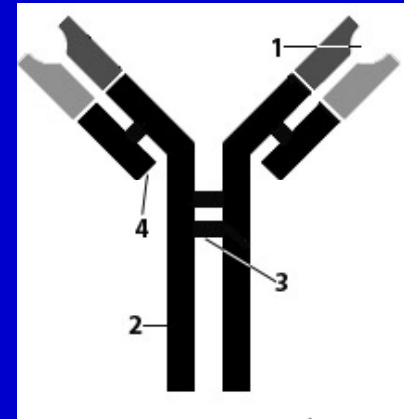
21. Which of the following does not belong to the lymphatic system:

- a ) Liver
- b) bone marrow
- c) thymus
- d) spleen

22. The word HOMEOSTASIS was coined by:

- a) Claude Bernard
- b) Charles Darwin
- c) Robin Warren
- d) Walter Cannon

- 23. The figure below is that of an antibody. Label the parts numbered in the figure:



- a) 1-heavy chain, 2-light chain, 3-antigen binding site, 4-disulphide bond
- b) 1-light chain, 2-disulphide bond, 3-antigen binding site, 4-heavy chain
- c) 1- Antigen binding site, 2-light chain, 3-disulphide bond, 4-heavy chain
- d) 1-antigen binding site, 2-heavy chain, 3-disulphide bond, 4-light chain.



24. World Diabetes Day is celebrated on the 14<sup>th</sup> November every year to mark:

- a) The discovery of diabetes for the first time
- b) the birthday of Paul Langerhans who discovered islets of Langerhans
- c) the birth anniversary of Banting who discovered insulin
- d) the day when glucometer was first used to detect glucose level in blood.

25. Antibodies are chemically made of:

- a) Carbohydrate
- b) Protein
- c) Lipid
- d) Nucleic acid

- 26. Glucagon converts glycogen in the liver to glucose. Hence it is a:
- a) hypoglycemic hormone
- b) isoglycemic hormone
- c) hyperglycemic hormone
- d) anisoglycemic hormone

27. T lymphocytes are so called because they develop in:

- a) Thymus
- b) Thalamus
- c) Thyroid
- d) Trachea

28. Which one of the following is a function of insulin:

- a) it converts glycogen to glucose
- b) it makes cell membrane permeable to glucose
- c) it helps in the synthesis of urea
- d) it converts fats to glucose

29. B lymphocytes are so called because they develop in:

- a) brain
- b) bladder
- c) bone marrow
- d) buccal cavity

30. The cause of diabetes mellitus is:

- a) Hypothalamus does not secrete ADH
- b) Alpha cells of pancreas fail to secrete insulin
- c) Beta cells fail to secrete insulin
- d) Alpha cells secrete excess insulin

31. Lymphocyte is a type of:

- a) Erythrocyte
- b) Agranulocyte
- c) Granulocyte
- d) Thrombocyte



- 32. Phagocytes are special type of cells which engulf antigens. They belong to:
  - a) lymphocytes and acidophils
  - b) basophils and acidophils
  - c) lymphocytes and basophils
  - d) monocytes and neutrophils

- 33. At the site of inflammation a chemical called histamine is released. It acts as a:
  - a) vasodilator
  - b) vasoconstrictor
  - c) anticoagulant
  - d) vasopressin

- 34. One important cause of insulin dependent diabetes is:
- a) A cells secrete more glucagon, adding more glucose to blood
- b) A cells do not secrete glucagon
- c) B cells are destroyed and become non-functional
- d) A & B cells secrete insulin & glucagon at the same time.

- 35. Insulin dependent diabetes can be controlled only by:
  - a) regular walking and jogging
  - b) avoiding a diet containing carbohydrates
  - c) taking tablets regularly
  - d) regular insulin injections

## KEY TO QUESTIONS

1-c	2-d	3-d	4-d	5-c
6-c	7-b	8-a	9-b	10-b
11-c	12-c	13-d	14-d	15-b
16-a	17-c	18-a	19-b	20-d
21-a	22-d	23-d	24-c	25-b
26-c	27-a	28-b	29-c	30-c
31-b	32-d	33-a	34-c	35-d