

Understanding Diabetes and Its Management

Medicine · Answer Key · 15 Questions

1. What is the primary characteristic of all forms of diabetes mellitus?

- A) Excessive insulin production
- B) Elevated blood glucose levels**
- C) Low blood pressure
- D) High platelet count

2. Which clinical classification of diabetes is defined by carbohydrate intolerance with onset during pregnancy?

- A) Type 1 diabetes
- B) Type 2 diabetes
- C) Gestational diabetes**
- D) Genetic diabetes

3. What is the normal range for HbA1c in a healthy individual?

- A) 4% to 5.6%**
- B) 6% to 7%
- C) 8% to 9%
- D) 10% to 12%

4. Which type of diabetes accounts for more than 90% of all cases?

- A) Type 1
- B) Type 2**
- C) Gestational
- D) Latent autoimmune

5. Which hormone is responsible for lowering blood glucose by promoting its uptake into cells?

- A) Glucagon
- B) Cortisol
- C) Insulin**
- D) Adrenaline

6. What is the primary mechanism of action of Metformin?

- A) Stimulating insulin secretion
- B) Increasing glucagon release
- C) Reducing hepatic gluconeogenesis**
- D) Blocking glucose absorption in the gut

7. Which class of oral hypoglycemic agents works by inhibiting the DPP-4 enzyme?

- A) Biguanides
- B) Sulfonylureas
- C) SGLT2 inhibitors
- D) DPP-4 inhibitors**

8. What is the most serious and common adverse reaction to insulin therapy?

- A) Weight gain
- B) Hypoglycemia**
- C) Lipodystrophy
- D) Bronchospasm

9. Why should patients with asthma or COPD avoid inhaled insulin?

- A) Risk of hypoglycemia
- B) Risk of bronchospasm**
- C) Risk of renal failure
- D) Risk of weight gain

10. Which of the following is a long-acting insulin analog?

- A) Regular insulin
- B) Insulin lispro
- C) Insulin glargine**
- D) NPH insulin

11. What is the main role of sulfonylureas in treating diabetes?

- A) Sensitizing tissues to insulin
- B) Promoting insulin release from beta cells**
- C) Reducing intestinal sugar absorption
- D) Inhibiting renal glucose reabsorption

12. What is the effect of inhibiting SGLT2 in the kidney?

- A) Increased glucose reabsorption
- B) Decreased urinary glucose excretion
- C) Increased urinary glucose excretion**
- D) Increased insulin production

13. Which condition is identified by the presence of microalbuminuria in diabetic patients?

- A) Retinopathy
- B) Nephropathy**
- C) Neuropathy
- D) Cardiomyopathy

14. What is the leading cause of blindness in people under the age of 60?

- A) Glaucoma
- B) Cataracts
- C) Diabetic retinopathy**
- D) Macular degeneration

15. What is the recommended periodic monitoring for patients on long-term Metformin therapy?

- A) Vitamin B12 levels**
- B) Iron levels
- C) Potassium levels
- D) Creatinine levels