

Chapter 21

Health and Diseases

I. Choose the correct Answer:

Question 1.

Tobacco consumption is known to stimulate secretion of adrenaline. The component causing this could be:

- (a) Nicotine
- (b) Tannic acid
- (c) Curcumin
- (d) heptin

Answer:

- (a) Nicotine

Question 2.

World 'No Tobacco Day' is observed on _____.

- (a) May 31
- (b) June 6
- (c) April 22
- (d) October 2.

Answer:

- (a) May 31

Question 3.

Cancer cells are more easily damaged by radiations than normal cells because they are:

- (a) Different in structure
- (b) Non-dividing
- (c) Starved mutation
- (d) Undergoing rapid division

Answer:

- (d) Undergoing rapid division

Question 4.

Which type of cancer affects lymph nodes and spleen?

- (a) Carcinoma
- (b) Sarcoma
- (c) Leukaemia
- (d) Lymphoma.

Answer:

- (c) Leukaemia

Question 5.

Excessive consumption of alcohol leads to;

- (a) Loss of memory
- (b) Cirrhosis of liver
- (c) State of hallucination
- (d) Suppression of brain

Answer:

- (b) Cirrhosis of liver

Question 6.

Coronary heart disease is due to _____.

- (a) Streptococci bacteria
- (b) Inflammation of pericardium
- (c) The weakening of heart valves
- (d) Insufficient blood supply to heart muscles.

Answer:

- (d) Insufficient blood supply to heart muscles.

Question 7.

Cancer of the epithelial cells is called:

- (a) Leukemia
- (b) Sarcoma
- (c) Carcinoma
- (d) Lipoma

Answer:

- (c) Carcinoma

Question 8.

Metastasis is associated with _____.

- (a) Malignant tumour
- (b) Benign tumour
- (c) Both (a) and (b)
- (d) Crown gall tumour.

Answer:

- (a) Malignant tumour

Question 9.

Polyphagia is a condition seen in:

- (a) Obesity
- (b) Diabetes mellitus
- (c) Diabetes insipidus
- (d) AIDS

Answer:

- (b) Diabetes mellitus

Question 10.

Where does alcohol effect immediately after drinking?

- (a) Eyes
- (b) Auditory region
- (c) Liver
- (d) Central nervous system.

Answer:

- (d) Central nervous system.

II. State whether True or False, if false write the correct statement:

1. AIDS is an epidemic disease.
2. Cancer causing genes are called Oncogenes.
3. Obesity is characterized by tumour formation.
4. In leukemia both WBCs and RBCs increase in number.
5. Study of cause of disease is called etiology.
6. AIDS is not transmitted by contact with a patient's clothes.
7. Type 2 diabetes mellitus results due to insulin deficiency.
8. Carcinogens are cancer causing agents.
9. Nicotine is a narcotic drug.
10. Cirrhosis is associated with brain disorder.

Answer:

1. False – AIDS is an pandemic disease
2. True
3. False – Obesity is characterized by cancer formation.
4. False – In leukemia only WBC increases in number.
5. True
6. True
7. False – Type 1 diabetes mellitus results due to insulin deficiency.
8. True
9. False – Nicotine is a stimulant.
10. False – Cirrhosis is associated with liver disorder.

III. Expand the following abbreviations:

1. IDDM – Insulin Dependent Diabetes Mellitus
2. HIV – Human Immuno deficiency Virus
3. BMI – Body Mass Index
4. AIDS – Acquired Immuno Deficiency Syndrome
5. CHD – Coronary Heart Disease
6. NIDDM – Non-Insulin Dependent Diabetes Mellitus

IV. Match the following:

Column I		Column II	
A	Sarcoma	(i)	Stomach cancer
B	Carcinoma	(ii)	Excessive thirst
C	Polydipsia	(iii)	Excessive hunger
D	Polyphagia	(iv)	Lack of blood flow to heart muscle
E	Myocardial Infarction	(v)	Connective tissue cancer

Answer:

- A. (v)
- B. (i)
- C. (ii)
- D. (iii)
- E. (iv)

V. Fill in the blanks:

1. Cirrhosis is caused in liver due to excessive use of
2. A highly poisonous chemicals derived from tobacco is
3. Blood cancer is called
4. Less response of a drug to a specific dose with repeated use is called
5. Insulin resistance is a condition in diabetes mellitus.

Answer:

1. alcohol
2. nicotine
3. Leukaemia
4. Drug tolerance
5. Type 2

VI. Analogy type Questions. Identify the first words and their relationship and suggest a suitable word for the fourth blank:

1. Communicable: AIDS: Non communicable:
2. Chemotherapy: Chemicals: Radiation therapy:
3. Hypertension: Hypercholesterolemia: Glycosuria:

Answer:

1. Cancer
2. Radiation

3. Hyper glycemia

VII. Answer in a Sentence:

Question 1.

What are psychotropic drugs?

Answer:

Drugs which acts on the brain and alter the behaviour, consciousness, power of thinking and perception are called psychotropic drug.

Question 2.

Mention the diseases caused by tobacco smoke.

Answer:

Lung cancer, bronchitis, pulmonary tuberculosis, emphysema and hypoxia are some of the diseases caused by tobacco smoke.

Question 3.

What are the contributing factors for Obesity?

Answer:

The social, behavioural, psychological, metabolic and cellular factors are the contributing factors of obesity.

Question 4.

What is adult – onset diabetes?

Answer:

In adult-onset diabetes, insulin production by the pancreas is normal and target cells do not respond to insulin.

Question 5.

What is metastasis?

Answer:

The cancerous cell migrate to distant Parts of the body affect new tissues. This process is called metastasis.

Question 6.

How does insulin deficiency occur?

Answer:

Insulin deficiency occurs by the destruction of P-cells of the pancreas and blood glucose levels are increased (hyperglycemia).

VIII. Short Answer Questions:

Question 1.

What are the various routes by which transmission of human immunodeficiency virus takes place?

Answer:

AIDS virus is present in urine, tears, saliva, breast milk and vaginal secretions. The virus is transmitted by the infected patient, who comes in contact with the blood of a healthy person. HIV/ AIDS is not transmitted by touch or any physical contact. It spreads through contact with body fluids or blood. HIV is generally transmitted by

- Sexual contact with an infected person.
- Use of contaminated needles or syringes.
- By the transfusion of contaminated or infected blood or blood products.
- From infected mother to her child through the placenta.

Question 2.

How is a cancer cell different from a normal cell?

Answer:

Normal Cell	Cancer Cell
Normal cells stop growing when enough cells are produced.	Cancer cells continue to grow after enough cells causing the formation of tumour.
Normal cells respond to the signals from other cells and stop growing.	Cancer cells do not respond to the signals from other cells.
Normal cells repair themselves or die if they are not healthy.	Cancer cells don't repair themselves when they are old or damaged.

Question 3.

Differentiate between Type-1 and Type-2 diabetes mellitus.

Answer:

Type - 1 Diabetes	Type - 2 Diabetes
Diagnosed in childhood.	Diagnosed in over 30 years old.
Not associates with excess body weight.	Associated with excess body weight.
Treated with insulin injection. Cannot be controlled without taking insulin.	Treated initially without medication or with tablets. Sometimes possible to come off diabetes medication.

Question 4.

Why is a dietary restriction recommended for an obese individual?

Answer:

Low calorie, normal protein, vitamins and minerals, restricted carbohydrate Mid fat, high fibre diet can prevent overweight. Calorie restriction for weight reduction is safe and most effective. A low – calorie diet accompanied by moderate exercise will be effective in causing weight loss. Meditation, Yoga and Physical activity can also reduce stress-related to overeating.

Question 5.

What precautions can be taken for preventing heart diseases?

Answer:

Diet management: Reduction in the intake of calories, low saturated fat and cholesterol-rich food, low carbohydrates and common salt are some of the dietary modifications. Diet rich in polyunsaturated fatty acids (PUFA) is essential. Increase in the intake of fibre diet, fruits and vegetables, protein, minerals and vitamin are required.

Physical activity: Regular exercise, walking and yoga are essential for bodyweight maintenance.

Addictive substance avoidance: Alcohol consumption and smoking are to be avoided.

IX. Long Answer Questions:

Question 1.

Suggest measures to overcome the problems of an alcoholic.

Answer:

Measures to overcome the problems of an alcoholic:

1. Education and Counselling: Education and proper counselling will help the alcoholics to overcome their problems and stress, to accept failures in their life.
2. Physical activity: Individuals undergoing Rehabilitation measures should be guided into healthy activities like reading, music, sports, yoga and meditation.
3. Seeking help from parents and peers: The affected individuals should seek help and guidance from parents and peers. This would help them to share their feeling of anxiety of wrongdoing and get rid of the habit.
4. Medical assistance: Individuals should seek help from psychologists, and psychiatrists, to get relieved from this condition and to lead a relaxed and peaceful life.

Question 2.

Changes in lifestyle is a risk factor for occurrence of cardiovascular diseases. Can it be modified? If yes, suggest measures for prevention.

Answer:

The diseases that affect the heart and the blood vessels are called cardio vascular diseases. High blood cholesterol and high blood pressure are the major reason for heart diseases. Yes, it can be modified by the following methods.

1. By maintaining the desirable blood cholesterol (level less than 200 mg/dl).
2. By following a good good diet with include increase in the intake of fibre diet, fruits and vegetables, protein, minerals and vitamins. Diet rich in polyunsaturated fatty acid.
3. By doing physical activities like regular exercise, walking and yoga.
4. By Avoiding alcohol and smoking.

X. Higher Order Thinking Skills: (HOTS)

Question 1.

What is the role of fat in the cause of atherosclerosis?

Answer:

The atherosclerosis is the condition, where the arteries become narrowed and hardened, due to the build-up of plaque (fatty streak to a fibrous form) around the artery wall and leads to the narrowing of blood vessels. It leads to Ischemia (deficient blood supply to the heart muscle) and myocardial infarction (death of the heart muscle tissue) occur. This disease disrupts the flow of blood around the body, posing the risk of serious complications.

Question 2.

Eating junk food and consuming soft drinks results in health problems like obesity, still children prefer. What are the suggestions you would give to avoid children eating junk food/ consumption of soft drinks?

Answer:

1. Get them involved in Planning healthy meals shopping.
2. Make them to understand the risk factors of eating junk food.
3. Understand the importance of eating low caloric food and to avoid junk food as junk food and soft drinks have high calorie.
4. To maintain the correct BMI.

Question 3.

Regular physical exercise is advisable for normal functioning of the human body. What are the advantages of practising exercise in daily life?

Answer:

The advantages of practising exercise in daily life are as follows:

- Practising exercise daily in our life make us feel happier.
- It helps us with weight loss.

- Exercises are good for the muscles and bones.
- It can increase our energy level.
- It can reduce the risk of chronic pain and chronic diseases.
- It can keep our skin, brain, health and memory.
- Exercises can help with relaxation and quality sleep.

Question 4.

A leading weekly magazine has recently published a survey analysis which says that number of AIDS patient in the country is increasing day by day. The report says that the awareness among the people about AIDS is still very poor. You are discussing the magazine report in your class and a team of your class decides to help people to fight against the dreadful disease.

(a) What problem you face when trying to educate the people in your village near by your school?

(b) How do you overcome the problem?

Answer:

(a) Many people are ignorant and not ready to discuss about the sexually transmitted disease like AIDS.

(b) Awareness to be created on the dreadful effects of AIDS and HIV.

XI. Value-Based Questions:

Question 1.

Once a person starts taking drugs or alcohol it is difficult to get rid of the habit. Why?

Answer:

It is difficult to get rid of the habit because they feel a strong urge to keep taking a drug or alcohol are dependent. It reaches the brain through the bloodstream. The persons fully dependent on drug or alcohol and they cannot live without drugs, which we call drug dependence.

Question 2.

Men addicted to tobacco lead to oxygen deficiency in their body. What could be the possible reason?

Answer:

Smoking increases carbon monoxide content in blood and reduces the concentration of haembound oxygen. This causes O₂ deficiency in the blood.

Question 3.

Name any three foods that are to be avoided and included in the diet of a diabetic patient. Why should it be followed?

Answer:

The foods that are to be avoided in the diet of a diabetic patient, are all processed grains, french fries, packaged snacks high in salt and carbohydrates, white bread and white flour. Foods that are to be included in the diet of diabetic patients are Brown rice, whole wheat bread, whole-grain cereal, oatmeal, millet and vegetables.

Question 4.

How can informational efforts change people's HIV knowledge and behaviour?

Answer:

Creating awareness campaign and educating people on the consequences of AIDS. Persons with HIV/AIDS should not be isolated from the family and society.

XII. Assertion and Reasoning:

In each of the following **Questions**, a statement of Assertion is given and a corresponding statement of Reason is given just below it. Of statements given below mark the correct answer as:

- (a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.
- (b) If both Assertion and Reason are true and Reason is not the correct explanation of Assertion.
- (c) Assertion is true but Reason is false.
- (d) Both Assertion and Reason are false.

1. Assertion: All drugs act on the brain.

Reason: Drugs disturb the functioning of the body and mind.

Answer:

- (a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.

2. Assertion: Excretion of excess glucose in urine is observed in a person with diabetes mellitus.

Reason: Pancreas is unable to produce sufficient quantity of insulin.

Answer:

- (b) If both Assertion and Reason are true and Reason is not the correct explanation of Assertion.