

Adolescence & Drug/Alcohol Abuse

1 Mark Questions

1. Mention the useful as well as the harmful drug obtained from the latex of poppy plant. [Delhi 2013]

Ans. Morphine is obtained from latex of poppy plant. It is useful as a sedative and harmful when used as opioids

2. How does smoking tobacco in human lead to oxygen deficiency in their body? [Delhi 2012]

Ans. Smoking increases carbon monoxide (CO) content in blood and reduces the concentration of haem-bound oxygen. This causes oxygen deficiency in the body

2 Marks Questions

3. What is 'withdrawal syndrome'? List any two symptoms it is characterised by. [Foreign 2014]

Ans. If the regular dose of drug or alcohol in an addicted person is discontinued abruptly, the body exhibits a characteristic and unpleasant symptoms called 'withdrawal syndrome'. The 'withdrawal syndrome' is characterised by symptoms like anxiety, nausea and sweating

4. How are morphine and heroin related? Mention the effect each one of them has on the human body? [All India 2014 C]

Ans. Both morphine and heroin are extracted from the latex of plant *Papaver somniferum*. Heroin is actually obtained from acidulation of morphine. Thus, both are related. Morphine acts as an effective sedative and pain killer while heroin acts as depressant and slows down body functions.

5. Write the scientific name of the source plant of the drugs-marijuana and hashish and mention their effect on human body. [Delhi 2014 C]

Ans. The scientific names of source plant of drugs Marijuana and Hashish is *Cannabis sativa*.
(i) They usually effect the cardiovascular system of human body.

6. Name the plant source of the drug popularly called smack. How does it affect the body of the abuser? [Delhi 2012]

or

Name the opioid drug and its source plant. How does the drug affect the human body? [All India 2010]

Ans. Smack is obtained from *Papaver somniferum* (poppy plant).
(i) It binds to specific opioid receptor present in our central nervous system and gastrointestinal tract.
(ii) It is a depressant and slows down the body functions.

7. Why is tobacco smoking associated with rise in blood pressure and emphysema (oxygen deficiency in the body) ? Explain. [All India 2011]

Ans. The nicotine present in tobacco stimulates adrenal glands to secrete adrenaline and noradrenaline. Both these hormones increase blood pressure and heart rates. Smoking increases carbon monoxide level of the blood, which competes with oxygen for transport. As the concentration of haem-bound oxygen decreases, there is oxygen deficiency in the body.

8. Name one plant and the addictive drug extracted from its latex. How does this drug affect the human body? [All India 2009]

Ans. Both morphine and heroin are extracted from the latex of plant *Papaver*

somniferum. Heroin is actually obtained from acidulation of morphine. Thus, both are related. Morphine acts as an effective sedative and pain killer while heroin acts as depressant and slows down body functions.

9. Why is using tobacco in any form injurious to the health? Explain. [Delhi 2008]

Ans. Tobacco is injurious to health because it contains alkaloid nicotine which releases adrenaline and noradrenaline. It also,

- (i) causes cancer of lungs, urinary bladder and throat, emphysema, bronchitis, coronary heart disease, etc
- (ii) increases CO content in blood and reduces concentration of haem-bound oxygen, thus causing oxygen deficiency in the body when smoked.
- (iii) causes cancer of oral cavity due to chewing.
- (iv) increases blood pressure and heart rate.

10. Why do sportsperson often fall a victim to cocaine addiction? [HOTS; All India 2008]

Ans. Cocaine exerts stimulating action on central nervous system, producing a sense of euphoria and increased energy. This is the reason some sports person misuse it to enhance their performance and with repeated use, gets addicted

11. Due to undue peer pressure, a group of adolescents started using opioids intra-venously.

What are the serious problems they might face in future? [Foreign 2008]

Ans. Serious problems due to opioids taken intravenously are:

- (i) AIDS and hepatitis-B may occur. Because the viruses of these diseases are spread through sharing the infected needles and syringes.
- (ii) Due to regular use, tolerance of the receptors increases, so they respond only to higher doses of drugs leading to greater intake and addiction.

12. Name the blank spaces A, B, C and D in the table given below: [Foreign 2008]

Name of the drug	Plant source	Organ system affected
A	Poppy plant	B
Marijuana	C	D

Ans. A – Morphine

B – Central nervous system

C – Cannabis sativa

D – Cardiovascular system

13. List four reasons to justify ban on intake of cannabinoids by sportsperson. [All India 2008]

Ans. Cannabinoids intake by sportsperson leads to increased muscular strength, promote aggressiveness and increases the athletic performance. It also affects cardiovascular system. So, it is justified to ban cannabinoids for sportsperson as it is an injustice on the part of other participants

3 Marks Questions

14. Do you support 'Dope' test being conducted on sports persons participating in a prestigious athletic meet? Give three reasons in support of your answer. [All India 2014 c]

Ans. Yes, the 'dope test' should be conducted on sportspersons participating in a prestigious athletic meet. This is done to find out whether any participant had taken any kind of performance enhancing drugs. The use of drugs in sports should be banned as:

- (i) they increase muscle strength.
- (ii) promote aggressiveness.
- (iii) increase athletic performance.

Because of above reasons, use of such drugs, e.g. steroids, analgesics, diuretics should be banned for participants as it would be unfair on the part of other participants (not consuming such drugs).

15. An active member of an awareness group conducts regular programmes to sensitise public against alcoholism amongst youth as a serious health hazard in his locality. Identify the values this member of the group is trying to propagate amongst the people in his locality.

[Value Based Question, Delhi 2013 C]

Ans. Member of an awareness group is trying to aware public commonly youth about the harmful impacts of alcohol. He wants to tell people that alcohol has several ill effects which affects the body of the individual in many ways.

- (i) Alcohol affect the foetus in case of pregnancy.
- (ii) It leads to reckless behaviour, vandilism and violence.
- (iii) It also cause aggressiveness, rebellious behaviour and depression.
- (iv) Fatigue, isolation, fluctuations in weight are the other ill effects.
- (v) Change in sleeping pattern, loss of appetite and lack of personal hygiene is also seen in addicts.

16. Write the source and the effect on the human body of the following drugs.

(i) Morphine

(ii) Cocaine

(iii) Marijuana [Delhi 2011]

Ans. (i) Morphine is obtained from the latex of *Papaver somniferum*. It is a depressant, which slows down the body functions.

(ii) Cocaine is obtained from *Erythroxylum coca*. It is a stimulant and produces a sense of euphoria and increased energy.

(iii) Marijuana is obtained from the inflorescence of *Cannabis sativa*. It affects cardiovascular system of the body.

17. (i) Name the drug used (a) as an effective sedative and pain killer (b) for helping patients to cope with mental illness like depression but often misused, (ii) How does moderate and high dosage of cocaine affect the human body? [Foreign 2011]

Ans. (i) (a) Morphine is an effective sedative and pain killer.

(b) Lysergic acid diethylamides (LSD) or barbiturates are often misused.

(ii) Moderate dose of cocaine have a stimulating action on central nervous system. It produces a sense of euphoria and increased energy. High dosage of cocaine causes hallucinations