MULTIPLE CHOICE QUESTIONS TEST WITH ONE CORRECT ANSWER
(Select just one answer A, B, C or D)

1. The name of the compound with the given skeletal formula is:
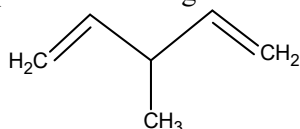
A. pentadiene.
B. hexadiene.
C. 3-vynilbut-2-ene.
D. 3-methylpenta-1,4-diene.

2. How many hydrogen atoms are there in one molecule of the same compound (from question 1)?

A. 6
B. 8
C. 10
D. 12

3. How many σ-bonds in total are there in one molecule of the same compound (from question 1)?

A. 5
B. 10
C. 12
D. 15

4. Planar (trigonal) hybridization of the carbon atom exists in the molecule of:

A. acetylene.
B. ethanol.
C. acetone.
D. in all three above.
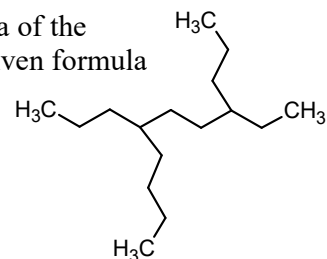
5. Mark the most polar compound from those given below!

A. Ethylbenzene.
B. Propanol.
C. Acetone.
D. Tetrachloromethane.

6. Upon addition of water to propene the obtained product is:

A. propane.
B. propenole.
C. propan-1-ol.
D. propan-2-ol.

7. The molecular formula of the compound with the given formula is:

A. $C_{14}H_{30}$
B. $C_{15}H_{32}$
C. $C_{16}H_{32}$
D. $C_{16}H_{34}$

8. The name of this compound is:
A. 6-butyl-3-propylnonane.
B. 3,6-dipropyldecane.
C. 4-ethyl-7-butyldecane.
D. 4-ethyl-7-propylundecane.

9. What is true for the compound from the previous two questions?
A. It is a gas at room temperature.
B. It is not very reactive.
C. It is easily soluble in water.
D. It participates in reaction of addition.

10. This compound after a reaction of elimination gives an:
A. alkene.
B. alcohol.
C. aldehyde.
D. arene.

11. Lindane, its formula given here, is a halogen derivative of a hydrocarbon from the class of:

A. aromatic compounds.
B. acyclic compounds.
C. alicyclic compounds.
D. heterocyclic compounds.
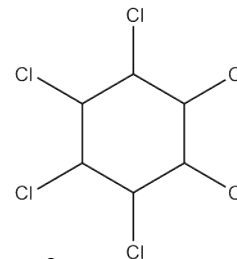
12. Upon elimination of 3 moles of chlorine from 1 mole of lindane, the product is:
A. 1 mole of cyclohexane.
B. 1 mole of benzene.
C. 2 moles of benzene.
D. 3 moles of benzene.

13. The final product of addition of water to propyne is:
A. propanal.
B. propenol.
C. propan-2-ol.
D. propanone.

14. Mark which of the following pairs are functional group isomers:

    I aldehyde and ketone.
    II alkene and cycloalkene.
    III alkyne and diene.

A. I and II.   C. II and III.
B. I and III.   D. I, II and III.

15. Mark which of the given substances IS NOT an aromatic compound!
A. Pyridine.
B. Furan.
C. Decalin.
D. Biphenyl.

16. Mark the intruder!
A. Benzene.
B. Benzaldehyde.
C. Hexanal.
D. Acetone.

17. The molecular formula of the cycloalkene containing 10 hydrogen atoms in the molecule is:
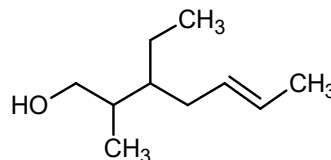A. C_5H_{10}
B. C_6H_{10}
C. C_7H_{10}
D. C_8H_{10}

18. The same molecular formula as in the previous question is correct for the corresponding:
A. alkene.
B. alkyne.
C. cycloalkane.
D. cycloalkyne.

19. The product of addition of HBr to but-1-ene is:
A. 1-bromobutane.
B. 1,2-dibromobutane.
C. 2-bromobutane.
D. 3-bromobutane.

20. The name of this compound is:

A. 5-ethyl-6-methylhept-2-en-7-ol.
B. 3-ethyl-2- methylhept-5-en-1-ol.
C. 2-methyl-3-ethylhept-5-en-1-ol.
D. 5-ethyl-6-methylheptenol.

21. The mole fraction of carbon in the compound from the previous question is approximately:
A. 2 times greater than the one of hydrogen.
B. 2 times smaller than the one of hydrogen.
C. 5 times greater than the one of oxygen.
D. 10 times smaller than the one of oxygen.

22. Hydrogen bonding exists in:
A. butadiene.
B. benzene.
C. acetone.
D. ethanol.

23. Characteristic reactions for aliphatic alcohols are the reactions of:
A. electrophilic substitution.
B. elimination of hydrogen.
C. dehydratation.
D. polymerization.

24. The reaction of bromination of phenol is a reaction of:
A. electrophilic substitution.
B. nucleophilic substitution.
C. nucleophilic addition.
D. hydrohalogenation.

25. The name of Alfred Nobel is related to the discovery of the dynamite for which he used the product of nitration of:
A. benzene.
B. toluene.
C. glycerol.
D. ethnol.

КЛУЧ ЗА ОПШТИНСКИ НАТПРЕВАР ПО ХЕМИЈА ЗА СРЕДНО ОБРАЗОВАНИЕ 2020

III КАТЕГОРИЈА

1	D
2	C
3	D
4	C
5	B
6	D
7	D
8	D
9	B
10	A
11	C
12	B
13	D
14	B
15	C
16	A
17	B
18	B
19	C
20	B
21	B
22	D
23	C
24	A
25	C