11th 12th Science Notes Questions

[Tnpsc Syllabus Portion]

Chemistry in action

1. The chemical compounds which exert, various physiological effects of therapeutic value are called
   a) Chemicals
   b) Vaccines
   c) Drugs
   d) All the above

   Explanation

   The chemical compounds which exert, various physiological effects of therapeutic value are called drugs.

2. What kind of effect does drugs have on organisms?
   a) Good effects
   b) Bad effects
   c) Both a and b
   d) None of the above

   Explanation

   The drugs that are used in the treatment and cure of any specific disease. The drugs that have some characteristic effect on the animal organism, but do not have any remedial effect for a particular disease. This class includes, morphine, cocaine etc.,

3. The effects of the drugs belonging to chemical compounds which exert, various physiological effects of therapeutic value is described by the term
   a) Chemotherapy
   b) Physiotherapy
   c) Both a and b
   d) None of the above

   Explanation

   The effects of the drugs belonging to chemical compounds which exert, various physiological effects of therapeutic value is described by the term chemotherapy.

4. Treatment of certain diseases by destroying the invading organism _____the cells of the host, by the use of certain organic compounds in known as chemotherapy.

a) By completely damaging
b) Partially damaging
c) Without damaging
d) None of the above

Explanation

Treatment of certain diseases by destroying the invading organism without damaging the cells of the host, by the use of certain organic compounds in known as chemotherapy.

5. The drugs which produce loss of sensation are called
a) Anaesthetics
b) Antibiotics
c) Vaccines
d) None of the above

Explanation

The drugs which produce loss of sensation are called anaesthetics.

6. Find out the types of anesthetics?
a) General anaesthetics
b) Local anaesthetics
c) Full anaesthetics
d) Both a and b

Explanation

General anaesthetics are the agent, which bring about loss of all modalities of sensation, particularly pain along with 'reversible' loss of conciousness. Local anaesthetics prevent the pain sensation in localised areas without affecting the degree of consciousness.

7. This anaesthetics bring about loss of all modalities of sensation, particularly pain along with 'reversible' loss of consciousness
a) Local anaesthetics
b) General anaesthetics
c) Full anaesthetics
d) None of the above

Explanation

General anaesthetics are the agent, which bring about loss of all modalities of sensation, particularly pain along with 'reversible' loss of conciousness.

8. This anaesthetics prevent the pain sensation in particular areas without affecting the degree of consciousness
   a) General anaesthetics
   b) Full anaesthetics
   c) Local anaesthetics
   d) None of the above

   Explanation

   Local anaesthetics prevent the pain sensation in localised areas without affecting the degree of consciousness.

9. Which of the following is mixed with ether and used as anaesthetic?
   a) Nitrous oxide
   b) Chloroform
   c) Aspirin
   d) Both a anb c

   Explanation

   Nitrous oxide N2O is used after mixing general anaesthetics like ether.

10. Which of the following is safest anaesthetic agent ?
    a) Chloroform
    b) N2O
    c) Ether
    d) None of the above

    Explanation

    Nitrous oxide is the safest of the anaesthetic agents.

11. The anaesthetic which is volatile in nature and also has pleasant smell and sweet taste is
    a) N2O
    b) **CHCL3**
    c) Ether
    d) All the above

Explanation

Chloroform CHCl3 is a Volatile liquid. It has pleasent smell and sweet taste.

12. Chloroform on reaction with the following forms toxic carbonyl chloride?
    a) **Oxygen**
    b) Nitrogen
    c) Carbon
    d) Both a and b

    Explanation

    Chloroform CHCl3 is a Volatile liquid. It has pleasent smell and sweet taste. With oxygen it forms a toxic carbonyl chloride. Hence it is not used now.

13. The present form of C2H5–O–C2H5 is a volatile liquid. This is mixed with stabilizer _____% propyl halide.
    a) 0.2%
    b) 0.02%
    c) 0.002%
    d) 0.121%

    Explanation

    The present form of C2H5–O–C2H5 is a volatile liquid. This is mixed with stabilizer 0.002% propyl halide. After absorption by tissues it attacks the central nervous system and makes unconscious.

14. _____are the compounds which relieve all sorts of pains without the loss of consciousness.
    a) Anaesthesia
    b) Analgesics
    c) Antiseptic
    d) All the above

    Explanation

    Analgesics are the compounds which relieve all sorts of pains without the loss of consciousness.

15. Analgesics are also known as
    a) Pain reliever

b) Pain killer
c) Antiseptic
d) Both a and b

Explanation

Analgesics are also called as pain killer, or pain relievers. These are effective in headaches, myalgia and arthalgia.

16. The following are the examples of analgesics?
    a) Aspirin
    b) Novalgin
    c) Anagin
    d) Both a and b

    Explanation

    Aspirin, Novalgin are commonly used analgesics. Aspirin acts both as antipyretic as well as analgesic. Certain narcotics (which produce sleep and unconsciousness) are also used as analgesics.

17. Which of the following is both antipyretic and analgesic
    a) Aspirin
    b) Novalgin
    c) Both a and b
    d) None of the above

    Explanation

    Aspirin, Novalgin are commonly used analgesics. Aspirin acts both as antipyretic as well as analgesic. Certain narcotics (which produce sleep . and unconsciousness) are also used as analgesics.

18. _____are the compounds which are used for the purpose of reducing fever (lowering the body temperature to the normal).
    a) Antipyretics
    b) Antiseptic
    c) Analgesic
    d) Anesthetic

    Explanation

    Antipyretics are the compounds which are used for the purpose of reducing fever (lowering the body temperature to the normal).

19. Examples of antipyretics are
    a) Antipyrine
    b) Phenacetin
    c) Paracetamol
    d) All the above

    Explanation

    Common antipyretics are, aspirin, antipyrine, phenacetin, and paracetamol. Their administration (taking these drugs) often leads to perspiration.

20._____is a substance that rendors micro organisms innocuous by killing them or preventing their growth. This term is used particularly for preparations applied to living tissues.
    a) Analgesics
    b) Antiseptic
    c) Anaesthesia
    d) All the above

    Explanation

    Antiseptic is a substance that rendors micro organisms innocuous by killing them or preventing their growth. This term is used particularly for preparations applied to living tissues.

21. Identify the antiseptic from the following
    a) Iodoform
    b) Phenol
    c) Aspirin
    d) **Both a and b**

    Explanation

    Iodoform, CHI_3 is used as an antiseptic and its 1% solution is a disinfectant. 0.2 percent solution of phenol acts as an antiseptic and its 1% solution is a disinfectant.

22. Antiprotozoal drugs are also called as
    a) Retroviral
    b) Antiviral
    c) Antibacterial

d) Anti malarial

Explanation

Antiprotozoal drugs are also called as Antimalarial

23. In malarial fever the temperature varies between

a) 102-106 F

b) 103-106 F

c) 105-108 F

d) None of the above

Explanation

Malaria causes shivering and fever. The body temperature rises to 103- 106F.

24. Which of the following disease affects liver and also causes anaemia

a) Typhoid

b) Dengue

c) Malaria

d) None of the above

Explanation

Malaria causes shivering and fever. The body temperature rises to 103- 106F. It causes physical weakness with the side-effects in lever and also causes aneamia.

25. Quinine , which is used as antimalarial drug is taken from

a) Cinchona bark

b) Cinchona leaves

c) Cinchona root

d) Both b and c

Explanation

Extracts of certain plants, specially the roots and stems, are extensively used as antimalarial. Cinchona bark which gives rise to quinine acts as antimalarial.

26. Find the antimalarial drug from the following

a) Quinine

b) Primaquinine

c) Chloroquinine

d) All the above

Explanation

The last antimalarial discovered in 1961 is pyrimethamine. However, quinine, primaquine and chloroquine are some of the best antimalarials.

27._____is used specially to control malarial parasite of the ovale vivax.

a) Quinine
b) Primaquinine
c) Chloroquinine
d) All the above

Explanation

Chloroquine is used specially to control malarial parasite of the ovale vivax etc. It is not used in curing the disease. It is used as a mixture with other antimalarials.

28.Many microorganisms (bacteria, fungi and moulds) produce certain chemicals which inhibit the growth or metabolism of some other microorganism. Such chemical compounds are known as

a) Antigens
b) Antibiotics
c) Antiseptics
d) All the above

Explanation

Many microorganisms (bacteria, fungi and moulds) produce certain chemicals which inhibit the growth or metabolism of some other microorganism. Such chemical compounds are known as antibiotics.

29.The first antibiotic, discovered by Alexander Fleming in1929, from mould

a) Spyrgira
b) Paracetamol
c) Penicillin
d) All the above

Explanation

The first antibiotic, discovered by Alexander Fleming in1929, from mould Penicillium notatum, was penicillin.

30. Find out the sources of antibiotics

a) Bacteria
b) Fungi
c) Actinomycetes
d) All the above

Explanation

There are three main sources of antibiotics. Bacteria ,Fungi and Actinomycetes .

31. The molecular formula of penicillin

a) $C_8 H_{11}N_2O_4$ S – R
b) $C_9 H_{11}N_2O_4$ S
c) $C_9 H_{11}N2O_4$ S – R
d) $C_9 H_{21}N_2O_4$ S – R

Explanation

Penicillins is the name given to the mixture of natural compounds having the molecular formula $C_9H_{11}N_2O_4$ S - R, and differing only in the nature of R. Depending upon the nature of R, there are at least six natural penicillins.

32. Penicillin is used for what diseases

a) Rheumatic fever
b) Bronchitis
c) Pneumonia
d) All the above

Explanation

Penicillin is extensively used for rheumatic fever, narrowing of heart wall, bronchitis, and pneumonia etc.,

33. The uncomfortable feel that is accompanied by burning sensation in stomach and food pipe after eating oily food is caused due to

a) **Acidity**
b) Basicity
c) Both a and b
d) None of the above

Explanation

Quite often, after eating oily and spicy food, one may feel uncomfortable due to some burning sensation in stomach/food pipe. This is due to the imbalance in the acidity in the stomach.

34. The drug formulations that gives relief from burning sensation of stomach is called as
    a) Analgesic
    b) Anesthesia
    c) Antacids
    d) All the above

    Explanation

    Quite often, after eating oily and spicy food, one may feel uncomfortable due to some burning sensation in stomach/food pipe. This is due to the imbalance in the acidity in the stomach. Certain drug formulations provide relief from such burning sensation. These are known as antacids.

35. What are the chemicals present in antacids
    a) Magnesium hydroxide
    b) Aluminium hydroxide
    c) Potassium hydroxide
    d) Both a and b

    Explanation

    Antacids are available in tablet as well as gel/syrup forms. These antacids contain magnesium and aluminium hydroxides, in addition to flavouring agents and colour

36. Antispasmodics include the following
    a) Atropine
    b) Belladonna
    c) Both a and b
    d) None of the above

    Explanation

    Antispasmodics are a group of medicines that include natural bellodona alkaloids (atropine, bellodona).

37. Which of the following is used to cure cramps, spasms of stomach, intestines and bladder?

a) Antigens
b) Antiseptics
c) Antispasmodics
d) Antacids

Explanation

These medicines are used to relieve cramps, spasms of the stomach, intestines and bladder.

38. Antispasmodics are mixed with the following and so used to treat peptic ulcer?
a) Antibiotics
b) Antigens
c) Antacids
d) All the above

Explanation

Antispasmodics are used with antacid, or other medicine in the treatment of peptic ulcer.

39. Anisotropine, Atropine, Dicyclomine, Cindinium cap are the examples of
a) **Antispasmodics**
b) Antibiotics
c) Antacids
d) Analgesics

Explanation

Anisotropine, Atropine, Dicyclomine, Cindinium cap

40. Also for this purpose antispasmodics are used?
a) Nausea
b) Vomiting
c) Motion sickness
d) All the above

Explanation

Antispasmodics prevent nausea, vomiting and motion sickness. In certain surgical and emergency procedure, these are used to help relax stomach and intestine for certain types of examination or diagnosis.

41. Now dyes are synthesized in industries through simple chemical reactions , but in earlier times it was extracted from
    a) Fruits
    b) Tubers
    c) Vegetables
    d) All the above

    Explanation

    Since time immemorial, human beings have been fascinated by colour. In the beginning, the colour materials were extracted from vegetable sources. Now a days, such substances are synthesized in factories through simple chemical reactions.

42. Find out the characteristics of dyes
    a) It should have a suitable colour.
    b) It should be able to fix itself or be capable of being fixed to the fabric
    c) It should be resistant to the action of water, dilute acids and alkalies (all detergents and washing soaps are alkaline in nature).
    d) All the above

    Explanation

    Above mentioned are characters of dyes.

43. Nowadays dyes are prepared from aromatic compounds such as
    a) Coal tar
    b) Ginger
    c) Petrol
    d) All the above

    Explanation

    Now a days, practically all the dyes are synthetic, and are prepared from aromatic compounds obtained from coal tar. Therefore, such dyes are sometimes called as coal tar dyes.

44. The relationship between the colour of a substance and its structure was explained by a German scientist
    a) Otto haan
    b) Otto wit

c) John Masefield
d) Einstein

Explanation

The relationship between the colour of a substance and its structure was explained by a German scientist Otto Witt (1876).

45. Otto witt explained the relationship between colour and structure by
a) Chromophore theory
b) Auxochrome theory
c) Chromophore and auxochrome theory
d) All the above

Explanation

The relationship between the colour of a substance and its structure was explained by a German scientist Otto Witt (1876) through the chromophore and auxochrome theory.

46. An organic compound appears coloured due to the presence of certain
a) Saturated group
b) Unsaturated group
c) Arithematic group
d) All the above

Explanation

An organic compound appears coloured due to the presence of certain unsaturated groups (the groups with multiple bonds) in it.

47. Unsaturated group with multiple bonds in it are called as
a) Auxochrome
b) Metallic chrome
c) Chromophore
d) All the above

Explanation

An organic compound appears coloured due to the presence of certain unsaturated groups (the groups with multiple bonds) in it. Such groups with multiple bonds are called chromophores.

48. The compounds containing chromophore are called as
    a) Chromogen
    b) Antigen
    c) Chromophyl
    d) All the above

    Explanation

    The compounds containing the chromophore group is called chromogen

49. The intensity of colour of dye depends on the number of
    a) Chromphore
    b) Degree of conjugation
    c) Either a or b
    d) None of the above

    Explanation

    The compounds containing the chromophore group is called chromogen. The colour intensity increases with the number of chromophores or the degree of conjugation. For example, ethene (CH2 = CH2) is colourless, but the compound CH3 – (CH = CH)6 – CH3 is yellow in colour.

50. The presence of certain groups which are not chromophores themselves, but deepen the colour of the chromogen. Such supporting groups are called
    a) Chromophores
    b) Auxochromes
    c) Gramophones
    d) Both a and c

    Explanation

    The presence of certain groups which are not chromophores themselves, but deepen the colour of the chromogen. Such supporting groups are called auxochromes.

51. Find out the auxochromes from the following
    a) –OH
    b) –NH2
    c) –NHR
    d) All the above

Explanation

Auxochromes may be acidic (phenolic) or basic. Some important auxochromes are –OH, –NH2, –NHR, NR2.

52. At what position of auxochrome it does not affect the colour?

a) Top
b) Bottom
c) Meta position
d) None of the above

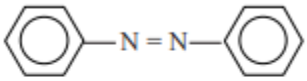
Explanation

The presence of an auxochrome in the chromogen molecule is essential to make it a dye. However, if an auxochrome is present in the meta position to the chromophore, it does not affect the colour.

53. Azobenzene is a

a) Chromophore
b) **Chromogen**
c) Auxochrome
d) None of the above

Explanation

(a) azobenzene,  is the chromogen

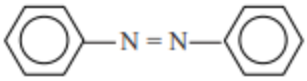
(b) diazo group, – N = N – is the chromophore

(c) hydroxyl group, –OH is auxochrome

54. The diazo and hydroxyl group are

a) Chromophore and chromogen
b) Chromogen and chromophore
c) **Chromophore and auxochrome**
d) Auxochrome and chromogen

Explanation

(a) azobenzene,  is the chromogen

(b) diazo group, – N = N – is the chromophore

(c) hydroxyl group, –OH is auxochrome

55. The method in which food spoiling micro organisms are killed by chemicals are known as

a) Food preservation
b) Chemical preservation
c) A and b
d) None of the above

Explanation

A chemical substance which prevents the spoilage of food material by destroying the food-spoiling microorganisms in it is called a food preservative.

56. Which of the following is used as food preservative

a) Sodium benzoate
b) Potassium metabisulphate
c) Both a and b
d) None of the above

Explanation

Sodium benzoate, and potassium metabisulphite are used for food preservation.

57._____is used to preserve fruit juices and squash as sodium benzoate is soluble in water

a) Sodium benzoate
b) Potassium metabisulphate
c) **Both a and b**
d) None of the above

Explanation

Sodium benzoate is used to preserve fruit juices and squash as sodium benzoate is soluble in water. It kills the food spoiling microorganisms.

58. _____Is used for preserving the colourless fruits like apple, litchi, mango chutney and lemon squashes etc.
   a) Sodium benzoate
   b) Potassium metabisulphate
   c) **Both a and b**
   d) None of the above

   Explanation

   Potassium meta-bisulphite is used for preserving the colourless fruits like apple, litchi, mango chutney and lemon squashes etc. Potassium metabisulphite reacts with the acid of fruit/juice and produces SO2 , which kills the microorganisms.

59. Which of the following are sweet in taste
   a) Mono saccharide
   b) Di saccharide
   c) Poly saccharide
   d) Both a and b

   Explanation

   Mono and disaccharides are sweet in taste. Sweetness is commonly associated with sugars. However, certain organic compounds which have been synthesized in laboratories are known to be many times sweeter than canesugar. Such compounds are called artificial sweetening agents or artificial sweetners.

60. Examples of artificial sweeteners are
   a) Saccharin
   b) Dulcin
   c) Cyclamate
   d) All the above

   Explanation

   Some commonly used artificial sweetners are, (i) Saccharin, (ii) Dulcin, (iii) Cyclamate, (iv) Nectarin and (v) Sucralose.

61. Antioxidants protect us against
   a) Cardiovascular disease
   b) Cancer
   c) Cataract

d) All the above

Explanation

The substances that act against oxidants are called antioxidants. Antioxidants thus minimise the damage caused by oxidants. Antioxidants protect us against cardiovascular disease, cancer and cataract and they slow down the effect of ageing.

62. Find out the antioxidants from the following

a) Vitamin C
b) Vitamin E
c) B-carotene
d) All the above

Explanation

The most important antioxidants are vitamin C, vitamin E and β-carotene.

63. Can antioxidants be used as food preservatives

a) Yes
b) No
c) Not sure
d) None of the above

Explanation

Antioxidants act as radical inhibitors. These antioxidants can be used as food preservatives

64. ____is a naturally occurring preservative found in vegetable oil.

a) Vitamin E
b) Vitamin C
c) Vitamin D
d) All of the above

Explanation

Vitamin E is a naturally occurring preservative found in vegetable oil

65. United States of America used _____ rockets for their Apollo space missions

a) Uranus
b) Neptune
c) Saturn

d) All the above

Explanation

Russians used powerful rockets to put their space vehicles in space. United States of America used Saturn rockets for their Apollo space missions. India has recently launched its satellite launch vehicle SLV-3 from Sriharikota.

66. A propellant is a combination of

a) Fuel and engine
b) Oxidizer and engine
c) Oxidiser and fuel
d) None of the above

Explanation

Propellants are combustible compounds which on ignition undergo rapid combustion to release large quantities of hot gases. A propellant is a combination of an oxidiser and a fuel.

67. Upthrust motion of rocket is based on

a) Newton's 1st law
b) Newton's 2nd law
c) Newton's 3rd law
d) None of the above

Explanation

These gases then come out through the nozzle of the rocket motor. The passage of gases through the nozzle of the rocket motor, provides the necessary thrust for the rocket to move forward according to the Newton's Third law of Motion (to every action, there is an equal and opposite reaction).

68. Find out the examples of propellants

a) Hydrazine
b) Liquid hydrogen
c) Polyurethane
d) All the above

Explanation

Some of the examples for propellents are Hydrazine, Liquid hydrogen, Polyurethane, etc

69. A polymer is a giant molecule obtained by intermolecular combination of a large number of small molecules of
    a) Same
    b) Different
    c) Both a and b
    d) None of the above

    Explanation

    A polymer is a giant molecule obtained by intermolecular combination of a large number of small molecules of the same or different type.

70. Polyalkenes are the polymers which are derived from _____hydrocarbons containing double bond.
    a) Unsaturated
    b) Saturated
    c) Both
    d) None of the above

    Explanation

    Polyalkenes are the polymers which are derived from unsaturated hydrocarbons containing double bond.

71. Identify the polyalkenes
    a) Polyethylene
    b) Polystyrene
    c) Synthetic rubbers
    d) All the above

    Explanation

    They are the types of poly alkenes.

72. _____polymerizes under high pressure and high temperature to give polyethene (also called polyethylene)
    a) Ethylene
    b) Ethene
    c) Methane
    d) Both a and b

    Explanation

Polyethylene, (polyethene). It is obtained from ethylene (ethene). Ethene polymerizes under high pressure and high temperature to give polyethene (also called polyethylene).

73. This polymerization of ethylene or ethene is catalysed by traces of
    a) Oxygen
    b) Organic peroxides
    c) Either a or b
    d) None of the above

    Explanation

    This polymerization of ethylene or ethene is catalysed by traces of oxygen or organic peroxides.

74. Polystyrene polymer is obtained from the monomer styrene and its molecular formula is
    a) C6 H4 – CH = CH2
    b) C6 H5 – CH2 = CH2
    c) C6 H5 – CH = CH2
    d) C6 H5 – CH3 = CH2

    Explanation

    (b) **Polystyrene.** This polymer is obtained from the monomer styrene ($C_6H_5-CH=CH_2$). The mechanism of polymerization is similar to that for other alkene polymers.

$$\underset{\text{styrene}}{nC_6H_5-CH=CH_2} \longrightarrow -(-CH_2-\underset{\underset{\text{polystyrene}}{C_6H_5}}{\underset{|}{CH}}-)_n-$$

75. The following is used to drink hot drink , to make toys etc.,
    a) **Polysterene**
    b) Polythene
    c) Buna rubbers
    d) None of the above

    Explanation

    Polystyrene is good transparent polymer. It is used for hot-drink cups, toys, household articles, etc.

76. Find out the classification of synthetic rubbers
   a) Buna rubbers
   b) Butyl rubbers
   c) Field rubbers
   d) Both a and b

   Explanation

   Synthetic rubbers obtained from butadiene are : (i) Buna rubbers (ii) Butyl rubbers

77. Synthetic rubbers are obtained from
   a) Butane
   b) Butane
   c) Butadiene
   d) All the above

   Explanation

   Synthetic rubbers obtained from butadiene are : (i) Buna rubbers (ii) Butyl rubbers.

78. Buna rubbers are obtained as a result of polymerisation / copolymerisation of butadiene with
   a) Acrylonitrile
   b) Styrene
   c) Either a or b
   d) None of the above

   Explanation

   Buna rubbers are obtained as a result of polymerisation / copolymerisation of butadiene with acrylonitrile or styrene.

79. Types of buna rubbers are
   a) Buna P
   b) Buna N
   c) Buna S
   d) Both b and c

   Explanation

   These are the type of buna rubbers

80. Buna-S is obtained by the polymerization of butadiene and styrene in presence of
a) Iron
b) Sodium
c) Potassium
d) All the above

Explanation

It is obtained by the polymerization of butadiene and styrene in presence of sodium metal.

81. In Buna rubbers Bu stands for butadiene and Na is
a) Sodium
b) Nickel
c) Nor acedic
d) Both b and c

Explanation

In the name Buna-S, Bu stands for butadiene, na for sodium (acting as polymerization initiator), and S- for styrene.

82. Buna S is also called as
a) General purpose rubber styrene
b) Normal styrene
c) Coded rubber styrene
d) All the above

Explanation

Buna-S is also called General Purpose Rubber Styrene (GRS). In actual practice, it is obtained as a result of copolymerisation of three parts of butadiene with one part of styrene.

83. Which of the following are extremely resistant towards wear and tear and used for the manufacture of tyres?
a) Neoprene
b) Buna-S
c) Both a and b
d) None of the above

Explanation

Neoprene and Buna-S are extremely resistant towards wear and tear and used for the manufacture of tyres, rubber tubes and other mechanical rubber goods.

84. _____ rubber is hard and extremely resistant to the swelling action of oils (petrol), solvents, heat etc
a) Buna S
b) Buna N
c) Buna P
d) All the above

Explanation

Buna-N rubber is hard and extremely resistant to the swelling action of oils (petrol), solvents, heat etc. Therefore, it is used for the manufacture of storage tanks for the solvents.

85. Find out the condensation polymers ?
a) Polyesters
b) Polyamides
c) Both a and b
d) None of the above

Explanation

The above given are types of condensation polymers

86. The polymers having ester linkage are known as
a) Polyesters
b) Polythenes
c) Both a and b
d) None of the above

Explanation

The polymers having ester linkage are known as polyesters.

87. Find out the types of polyesters
a) Terylene
b) Dacron
c) Glyptal
d) **All the above**

Explanation

The polymers having ester linkage are known as polyesters. Some important polyesters are : Terylene (dacron) and glyptal.

88. Nylon 66 is an example for

a) **Polyamide**
b) Polyester
c) Polyethene
d) All the above

Explanation

The polymers having an amide linkage between their monomers are called polyamides. Typical polyamide polymer is Nylon-66.

89. _____ is obtained by condensing adipic acid with hexamethylenediamine with the elimination of water molecule.

a) Alcohol
b) Acid
c) Nylon
d) Both a and b

Explanation

Nylon-66 is obtained by condensing adipic acid with hexamethylenediamine with the elimination of water molecule.

90. The chain length of Nylon-66 depends upon

a) Temperature
b) Time
c) Both a and b
d) None of the above

Explanation

Nylon-66. It is obtained by condensing adipic acid with hexamethylenediamine with the elimination of water molecule. The chain length depends upon the temperature and time for which the process is carried out.

91. The polyamides are identified by numbers. These numbers refer to the number of carbon atoms in

a) Diamine
b) Dibaic acid
c) Both a and b
d) None of the above

Explanation

The polyamides are identified by numbers. These numbers refer to the number of carbon atoms in diamine and in the dibasic acid. As in the above case, the carbon atoms are 6 in each case, therefore, the product is described as nylon-66.

92. The tensile strengthof nylon 66 is
a) Low
b) High
c) **Very high**
d) None of the above

Explanation

Nylon-66 is a linear polymer, and has very high tensile strength.

93. _____ is usually fabricated into sheets, bristles for brushes and in textile
a) Nylon 62
b) Nylon 63
c) **Nylon 66**
d) Nylon 65

Explanation

Nylon-66 is a linear polymer, and has very high tensile strength. It shows good resistance to abrasion. Nylon-66 is usually fabricated into sheets, bristles for brushes and in textile.

94. _____ nylon fibres are used for making elastic hosiery
a) Plain
b) **Crinkled**
c) Tored
d) All the above

Explanation

Nylon-66 is a linear polymer, and has very high tensile strength. It shows good resistance to abrasion. Nylon-66 is usually fabricated into sheets, bristles for brushes and in textile. Crinkled nylon fibres are used for making elastic hosiery.

95. Find out the formaldehyde resin
   a) Phenol-formaldehyde
   b) Urea-formaldehyde
   c) Melamine formaldehyde
   d) **All the above**

   Explanation

   Formaldehyde resins are typical thermosetting plastics. This class of plastics include phenol-formaldehyde, urea-formaldehyde and melamine formaldehyde resins.

96. On heating, formaldehyde resins become highly cross-linked thereby forming
   a) Infusible product
   b) Insoluble product
   c) Both a and b
   d) None of the above

   Explanation

   On heating, these resins become highly cross-linked thereby forming infusible and insoluble product.