

CHEMISTRY

BOOKS - MTG CHEMISTRY (ENGLISH)

CHEMISTRY IN EVERYDAY LIFE



1. The use of chemicals for treatment of diseases is called as:

A. chemotherapy

B. physiotherapy

- C. angiotherapy
- D. polytherapy.

Answer: A



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2. Which of the following is a criteria to calssify drugs

?

- A. Chemical stucture
- B. Moleclar targets
- C. Drug action

D. All of these.

Answer: D



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3. What type of forces bind the substrate to the active site of enzyme ?

(i) Ionic bonding (ii) Hydrogen bonding (iii) van der Waals forces (iv) Reaction with functional group of enzymes

A. (i),(ii) and (iv)

B. (i),(iii) and (iv)

- C. (i),(ii) and (iii)
- D. (i),(ii),(iii) and (iv)

Answer: C



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4. Some drug do not bind to the enzyme's active site, instead bind to a different site of enzyme. This site is called.

- A. allosteric site
- B. substrate site
- C. ionic site

D. competitve site.

Answer: A



- **5.** Which of the following is not true about drug receptors?
 - A. Receptor proteins are embedded in the cell membrane .
 - B. The chemical known as chemical messengers are received at the binding sites of receptors.

- C. The receptors show selectively for one chemical messenger over the other .
- D. Receptor protein is decomposed and destroyed after removal of chemical messenger .

Answer: D



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6. Drugs that bind to the receptor site and inhibit its natural function are called:



7. The main cause of acidity in the stomach is

A. release of extra gastric acids which decrease the pH level

B. indigestion and pain in larger intestine

C. increase the pH level in the stomach

D. release of extra bile juice which increases alkaline medium in stomach .

Answer: A



8. Which of the following will not act as antacid?
A. Sodium hydrogencarbonate
B. Magnesium hydroxide
C. Sodium carbonate
D. Aluminium carbonate
Answer: C
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9. Antihistamines are not helpful

- A. in curing nasal allergies
- B. in treating rashes caused by itching
- C. in bringing down acute fever
- D. in vasodilation

Answer: C



- **10.** The drugs which are given to the patients suffering from anxiety and metal tension are known as
 - A. tranquilizers

B. analgesics C. antimicrobials D. antibiotics.

Answer: A



- 11. Which of the following will not act as tranquilizer?
 - A. Equanil
 - B. Analgin
 - C. Meprobamate

D. Chlordiazepoxide

Answer: B



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12. Which of the following is scientific explanation of depression?

A. An increased level of sugar in the blood leads to depression .

B. Low levels of noradrenaline, a neurotransmitter in the blood leads to depression .

C. Release of extra gastric juices in the stomach leads to depression.

D. Sleep inducing drugs lead to depression.

Answer: B



13. Which of the following is not antidepressants?

A. Ipronizxid

B. Phenelzine

C. Equanil

D. Salvarsan

Answer: D



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14. Barbituric acid and its derivatives are well known as

- A. tranquilizers
- B. antiseptics
- C. analgesics
- D. antipyretics.

Answer: A



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15. Barbiturates acts as

- A. hypnotic i.e., sleep producing agents
- B. non-narcotic analgesics
- C. activator of neutrotransmitters
- D. antiallergic drugs.

Answer: A



16. Which of the following compounds represents an analgesic ?

В.

Answer: A



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17. Which of the following can be used as an analgesic without causing addictions?

- A. Morphine
- B. Aspirin
- C. Heroin
- D. Codeine

Answer: B



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- **18.** Substances used in bringing down the body temperature in high fevers are called:
 - A. analgesics
 - B. antipyretics
 - C. antihistamines
 - D. tranquilizers.

Answer: B



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19. Which of the following is a narcotic analgesic?

A. Ibuprogen

B. Aspirin

C. Paracetamol

D. Morphine

Answer: D



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20. A drug that is antipyretic as well as analgesic is:

A. chloroquine B. penicillin C. chlordiazepoxide D. 4-acetamidophenol **Answer: D Watch Video Solution** 21. Which of the following defines the term opiates? A. Narcotic analgesics obtained from the oprium рорру.

- B. Non-narcotic analgesics which reduce fever.
- C. Narcotic drugs that inhibit pathogenic microbes

•

D. Tranquilizers used to induce sleep.

Answer: A



- 22. Antimicrobial drugs include
- (i) antiseptics (ii) antibiotics (iii) disinfectants
 - A. (i) and (ii)

B. (i) and (iii)
C. (ii) and (iii)
D. (i), (ii) and (iii)

Answer: D



- 23. Which of the following is not an antibiotics?
 - A. Chloramphenicol
 - B. Ofloxacin
 - C. Penicillin

D. Phenelzine

Answer: D



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24. The antibiotic which is effective against certain strains of cancer cells

- A. dysidazirine
- B. sulphanilamide
- C. vancomycin
- D. ofloxacin.

Answer: A



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25. Which among the following is not an antibiotic?

- A. Chloramphenicol
- B. Oxytocin
- C. Erythromycin
- D. Tetracyclin

Answer: B



26. A drug which is effective in curing malaria is
A. aspirin
B. quinine
C. morphine
D. analgin .
Answer: B
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27. An ester which is used as a medicine

A. ethyl acetate

B. methyl acetate

C. methyl salicylate

D. ethyl benzoate .

Answer: C



- 28. Which of the following antibiotics is bactericidal?
 - A. Erthromycin
 - B. Tetracycline

- C. Penicillin
- D. Chloramphenicol

Answer: C



- 29. Which one is broad spectrum antibiotic?
 - A. Chloramphenicol
 - B. Plamoquine
 - C. Xylocaine
 - D. Antiseptic

Answer: A



- **30.** The term 'broad spectrum antibiotics ' means
 - A. bactericidal antibiotics
 - B. bacteriostatic antibiotics
 - C. which kill or inhibit a wide range of gram -ve and gram +ve bacteria
 - D. which kill or inhibit all types of gram +ve bacteria .

Answer: C



- **31.** Which of the following statements is not correct about penicillium?
 - A. Penicillin G has a narrow spectrum.
 - B. It is extracted from antibacterial fungus

 Penicillium.
 - C. Ampicillin and amoxycillin are synthetic modifications of penicillins.
 - D. It has bacteriostatic effect.

Answer: D



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- **32.** Antiseptics are the chemicals which either _____ or ____ the growth of microorganism and are applied as the _____.
 - A. kill, prevent, living tissues
 - B. kill, prevent, non-living objects
 - C. increase, decrease, living tissues
 - D. kill, increase, non-living tissues

Answer: A

33. Which of the following statement is not correct?

A. Some disinfectants can be used as antiseptic at low concentration .

B. Aspirin is analgesic and antipyretic .

C. Norethindrone is an anti histamine.

D. Chloramphenicol is a broad spectrum antibiotic

Answer: C



34. Which of the following statements is not correct?

A. Antiseptics can be safely applied to the living tissues.

- B. Antiseptics can be incorporated into deodrants , face powders and soaps.
- C. Disinfectants can also be applied to the skin safely.
- D. A very dilute solution of a few disinfectants can be used as antiseptics.

Answer: C



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- **35.** Which of the following statements is incorrect?
 - A. Aspirin is both analgesic and antipyretic.
 - B. Ampicillin is a natural antibiotic.
 - C. Salvarsan is toxix to human beings .
 - D. Some disinfectants are used as antiseptics in lower concentrations.

Answer: B

36. What is tincture of iodine? What is its use?

A. 2-3% solution of iodine in alcohol-water mixture

B. A mixture of iodine in chloroxylenol.

C. A mixture of 0.2% phenol and 2-3% iodine in water .

D. 2-3% solution of iodine in potassium iodide.

Answer: A



37. The main constituents of dettols are

- A. chloramphenicol + glycerol
- B. 2-3% solution of iodine in alcohol
- C. 0.2% solution of phenol.
- D. chloroxylenol and terpineol.

Answer: D



38. Which of the following is not true about antifertility drugs.?

A. Birth control pills contain a mixture of synthetic estorgen and progesterone derivatives.

B. Both compounds i.e., estrogen and progesterone are vitamins .

C. Progestrone is supposed to suppress ovulation.

D. Norethindrone is an example of synthetic progesterone derivative.

Answer: B



39. Name an artificial sweetener which is derivative of sucrose .

- A. Saccharine
- B. Sucrolose
- C. Sucrobenzamide
- D. Aspartame

Answer: B



40. Aspartame, the artificial sweetener is made of a dipeptide of the amino acids,

A. aspartic acid and phenylalanine

B. aspartic acid and glycine

C. alanine and glycine

D. aspartic acid and glucatamic acid.

Answer: A



41. What problem arises in using alitame as artificial sweetener?

A. It decomposes when added to the food items.

B. It provides a huge amount of calories to the food.

C. It is difficult to control the sweetness of food while using it.

D. It increases the volume of the contents to a large extent.

Answer: C



42. Why is use of aspartame limited to cold foods and drinks ?

A. it is unstable to heat and decomposes at cooking temperature

B. it is 500 times sweeter than cane sugar

C. it becomes bitter at cooking temperature

D. it reacts with the food at cooking temperature.

Answer: A



43. The sweeteners value of aspartame in comparison to cane sugar is

- A. 550
- B. 100
- C. 600
- D. 2000

Answer: B



44. Which of the following is not used as a food prevative?

A. Sodium salt of benzoic acid

B. Sodium salt of sorbic acid

C. Sodium salt of propanoic acid

D. Sodium salt of palmitic acid

Answer: D



45. An antioxidant which is added to butter to increase its shelf life from months to years is

- A. Sodium benzoate
- B. Butylated hydroxy anisole
- C. Sulphur dioxide
- D. Butylated hydroxy tolunene

Answer: B



46. ____ and ___ are useful antioxidants for wine and beer .

A. Sulphur trioxide and sulphate

B. BHT and BHA

C. Sulphur dioxide and sulphite

D. None of these

Answer: C



47. What are the hydrolysis products of glyceryl oleate $(C_{17}H_{32}COO)_3C_3H_5$ during preparation of soap?

A.
$$C_{17}H_{32}COONa + C_3H_5OH$$

$$\mathsf{B.}\,C_{17}H_{32}COOH + CH_3CH_2CH_2OH$$

C.

$$C_{17}H_{32}COOH+CH_2OH-CHOH-CH_2OH$$

D.

$$C_{17}H_{32}COONa + CH_2OH - CHOH - CH_2OH$$

Answer: D



- **48.** Which of the following is not a correct statement ?
 - A. Transparent soap are made by dissolving the soap in ethanol and then evaporating excess solvent.
 - B. Soaps that float in water are made by beating tiny air bubbles before their hardening .
 - C. Medicated soaps contian alcohol to prevent rapid drying.
 - D. Potassium soaps are soft to the skin than sodium soaps.

Answer: C



- **49.** The main difference between bathing and washing soap is
 - A. bathing soap are potassium salts of fatty acids washing soaps are sodium salt of fatty acids .
 - B. bathing soaps are sodium salt of fatty acids while washing soaps are potassium salt of fatty acids

- C. bathing soaps are cationic in nature while washing soaps are anionic
- D. bathing soaps are calcium salts of fatty acids while washing soaps are anionic

Answer: A



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50. Soaps do not work in hard water containing calcium and magnesium ions because

- A. Ca^{2+} and Mg^{2+} ion form insoluble calcium and magnesium salts in the form of scum
- B. $Na^+ \; {
 m and} \; K^+ \;$ present in soap react with $Ca^{2+} \; {
 m and} \; Mg^{2+}$ and hinder cleansing process
- C. a large amount of soap is to be used in ${\sf presence} \; {\sf of} \; Ca^{2+} \; \; {\sf and} \; \; Mg^{2+}$
- D. scum formed by combination of $Na^+, Ca^{2+} \ {
 m and} \ Mg^{2+}$ stick to the cloth and are not removed on agitations.

Answer: A



51. Which is not true for a detergent molecule?

A. It has a non-polar organic part and a polar group.

B. It is not easily biodegraded.

C. It is a sodium salt of fatty acids.

D. It is a surface active reagent .

Answer: C



52. Which of the following is na example of non-biodegradable detergent?

$$\textbf{B.} \overset{\text{CH}_3-(\text{CH}_2)_9-\text{CH}}{\underset{\text{CH}_3}{\longleftarrow}} \text{SO}_3\text{Na}$$

C.
$$CH_3$$
 CH_3 CH_3

D.
$$CH_3-\left(CH_2
ight)_{10}-CH_2-OSO_3Na$$

Answer: C



- **53.** Which of the following is not a true statement about the detergents?
 - A. Anionic detergents are sodium salts of sulphonated long chain alcohols or hydrocarbons.
 - B. Cationic detergents are quarternary ammonium salts of amines with acetates, chlorides or bromides as an ions.
 - C. Non-ionic detergents do not contain any ion in their constitution.

D. Detergents containing branched hydrocarbons chains are biodegradable.

Answer: D



Higher Order Thinking Skills

1. The pair whose both species are used in acid medicinal preparation is:

A. $NaHCO_3$ and $Mg(OH)_2$

B. Na_2CO_3 and $Ca(HCO_3)_2$

 $C. Ca(HCO_3)_2$ and $Mg(OH)_2$

D. $Ca(OH)_2$ and $NaHCO_3$

Answer: A



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2. The stucture given below is known as

$$R \rightarrow S \rightarrow CH_3$$
 CH_3
 CH_3

A. Penicillin F

- B. Penicillin G
- C. Penicillin K
- D. Ampicillin

Answer: B



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OH
$$CH_3 \xrightarrow{CH_3COCl, Py} X \xrightarrow{KMnO_4} Y$$

The final product 'Y' is medicine . Which of the following is incorrect regarding 'Y'?

A. It has analgesic as well as antipyretic properties.

- B. It helps to prevent heart attacks.
- C. It has anti-blood clotting action.
- D. It suppresses the gastric anomalies.

Answer: D



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4. Which of the following is not a surfactant?

A.
$$CH_3-\left(CH_2
ight)_{15}-N^+(CH_3)_3Br^-$$

B.
$$CH_3 - (CH_2)_{14} - CH_2NH_2$$

C.
$$CH_3-(CH_2)_{16}-CH_2OSO_2^-Na^+$$

D.
$$OHC-\left(CH_{2}
ight)_{14}-CH_{2}-COO^{-}Na^{+}$$

Answer: B



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- **5.** For the preparation of a detergent 'P' from benzene , the following steps are involved :
- I. $\frac{RCH = CH_2}{\text{HF,Friedel-Crafts reaction}}$

II. $H_2SO_4\,/\,SO_3\,{
ightarrow}$

I.
$$\xrightarrow{RCH=CH_2}$$

HF, Friedel-Crafts reaction

II. $\xrightarrow{H_2SO_4/SO_3}$

III. \xrightarrow{NaOH} \xrightarrow{RCH} $\xrightarrow{RCH=CH_2}$ \xrightarrow{NaOH} \xrightarrow{RCH} $\xrightarrow{RCH=CH_2}$ \xrightarrow{NaOH} \xrightarrow{RCH} $\xrightarrow{RCH=CH_2}$ \xrightarrow{NaOH} \xrightarrow{RCH} $\xrightarrow{RCH=CH_2}$ $\xrightarrow{RCH=CH_2}$ \xrightarrow{NaOH} $\xrightarrow{RCH=CH_3}$ $\xrightarrow{(P)}$ $\xrightarrow{RCH=CH_2}$ $\xrightarrow{RCH=RCH_2}$ $\xrightarrow{RCH_2}$ $\xrightarrow{RCH=RCH_2}$ $\xrightarrow{RCH=RCH_2}$ $\xrightarrow{RCH=RCH_2}$ $\xrightarrow{RCH=RCH_2}$ $\xrightarrow{RCH=RCH_2}$ $\xrightarrow{RCH_2}$ $\xrightarrow{RCH$

These steps should be in sequence of

Answer: A



Exemplar Problems

- 1. Which of the following statements is not correct?
 - A. Some antiseptics can be added to soaps.
 - B. Dilute solutions of some disinfectants can be used as antiseptic.
 - C. Disinfectants are antimicrobial drugs.
 - D. Antiseptic medicines can be ingested .

Answer: D



2.	Which	is the	correct	statement	about	birth	contro
pi	ills?						

- A. Contain estogen only
- B. Contain progesterone only
- C. Contain a mixture of estrogen and progesterone derivatives
- D. Progesterone enhances ovulation.

Answer: C



3. Which statement about aspirin is not true?	
---	--

- A. Aspirin belongs to narcotic analgesics .
- B. It is effective in relieving pain.
- C. It has antiblood clotting action.
- D. It is a neurologically active drug.

Answer: A



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4. The most useful classification of drugs for medicinal chemists is

- A. on the basis of chemical sturcture
- B. on the basis of drug action
- C. on the basis of molecular targets
- D. on the basis of pharmacological effect

Answer: C



- **5.** Which of the following statements is correct?
 - A. Some tranquilizers function by inhibiting the enzymes which catalyse the degradation of

noradrenaline.

B. Tranquilizers are narcotic drugs.

C. Tranquilizers are chemical compounds that do not effect the message transfer from nerve to receptor .

D. Tranquilizers are chemical compounds that can relieve pain and fever.

Answer: A



6. Salvarsan is arsenic containing drug which was first						
used for the treatment of						
A. syphilis						
B. typhoid						
C. meningitis						
D. dysentry						
Answer: A						

7. A narrow spectrum antibiotic is active against

- A. gram positive or gram negative bacteria
- B. gram negative bacteria only
- C. single organism or one disease
- D. both gram positive and gram negative bacteria.

Answer: A



- **8.** The compound that causes general antidepressant action on the central nervous system belongs to the class of
 - A. analgesics

- B. tranquilizers
- C. narcotic analgesics
- D. antihistamines.

Answer: B



- **9.** Which of the following enhances leathering property of soap?
 - A. Sodium carbonate
 - B. Sodium resinate

- C. Sodium stearate
- D. Trisodium phosphate

Answer: B



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10. Glycerol is added to soap. It function:

- A. as a filler
- B. to increase lathering
- C. to prevent rapid drying
- D. to make soap granules

Answer: C



- **11.** Polyethylene glycols are used in the preparation of which type of detergent ?
 - A. Cationic detergents
 - B. Anionic detergents
 - C. Non-ionic detergents
 - D. Soaps

Answer: C



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12. Which of the following is not a target molecule for drug function in body?

- A. Carbohydrates
- B. Lipids
- C. Vitamins
- D. Proteins

Answer: C



13. Which of the following statements is not true about enzyme inhibitors?

A. Inhibit the catalytic activity of the enzyme.

B. Prevent the binding of substrate.

C. Generally a strong covalent bond is formed between an inhibitor and an enzyme.

D. Inhibitors can be competitive or noncompetitive.

Answer: C



14. Which of the following chemicals can be added for sweetening of food item at cooking temperature and does not provide calories?

- A. Sucrose
- B. Glucose
- C. Aspartame
- D. Sucralose

Answer: D



15. Which of the following will not enhance	e nutritional
value of food ?	

- A. Minerals
- B. Artificial sweetners
- C. Vitamins
- D. Amino acids

Answer: B



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Assertion And Reason

- **1.** Assertion (A) Competitive inhibitors compete with natural substrate for their attachement on the active sites of enzymes.
- Reason (R) In competitive inhibitor binds to the allosteric site of the enzyme.
 - A. If both assertion and reason are true and reason is the correct explanation of assertion .
 - B. If both assertion and reason are true but reason is not the correct explanation of assertion .
 - C. If assertion is true but reason is false.
 - D. If both assertion and reason are false.



2. Assertion: Chemical messengers are received at the binding sites of receptor proteins.

Reason: Chemical messenger gives messages to the cell without entering the cell.

- A. If both assertion and reason are true and reason is the correct explanation of assertion .
- B. If both assertion and reason are true but reason is not the correct explanation of assertion .

- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

Answer: A



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3. Assertion (A) Transparent soaps are made by dissolving soaps in ethanol.

Reason (R) Ethanol makes things invisible.

A. If both assertion and reason are true and reason is the correct explanation of assertion .

B. If both assertion and reason are true but reason is not the correct explanation of assertion .

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

Answer: C



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4. Assertion: Receptors are crucial to body's communicational process.

Reason: Receptors are proteins.

- A. If both assertion and reason are true and reason is the correct explanation of assertion .
- B. If both assertion and reason are true but reason is not the correct explanation of assertion .
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.

Answer: B



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5. Assertion (A) Chemical messengers are chemicals that enable communications of message between tow

neurons or between or between neurons and muscles.

Reason (R) Chemicals enter the cell through receptor.

A. If both assertion and reason are true and reason is the correct explanation of assertion .

B. If both assertion and reason are true but reason is not the correct explanation of assertion .

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

Answer: C



6. Assertion: Metal hydroxides are better antacids than hydrogencarbonates.

Reason: Being insoluble metal hydroxides do not increase the pH above neutrality.

A. If both assertion and reason are true and reason is the correct explanation of assertion .

B. If both assertion and reason are true but reason is not the correct explanation of assertion .

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

Answer: A

7. Assertion: Sulpha durgs contain sulphonamide group.

Reason: Salvarsan is a sulpha drug.

A. If both assertion and reason are true and reason is the correct explanation of assertion .

B. If both assertion and reason are true but reason is not the correct explanation of assertion .

C. If assertion is true but reason is false.

D. If both assertion and reason are false.



8. Assertion: Low level of noradrenaline causes depression.

Reason: Equanil is used in controlling depression.

- A. If both assertion and reason are true and reason is the correct explanation of assertion .
- B. If both assertion and reason are true but reason is not the correct explanation of assertion .
- C. If assertion is true but reason is false.

D. If both assertion and reason are false.

Answer: B



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9. Assertion : The -As=As- linkage present in arshphenamine (a Salvarsan drug) resembles the -N=N- linkage present in azo days .

Reason: The first antibacterial agent, prontosil resembles in structure to the compound salvarsan.

A. If both assertion and reason are true and reason is the correct explanation of assertion .

B. If both assertion and reason are true but reason is not the correct explanation of assertion .

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

Answer: B



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10. Assertion: 0.2 per cent solution of phenol is an antiseptic while its one percent solution is disinfectant.

Reason: Antiseptics are also called disinfectant.

- A. If both assertion and reason are true and reason is the correct explanation of assertion .
- B. If both assertion and reason are true but reason is not the correct explanation of assertion .
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.



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11. Assertion (A) Penicillin (G) is an antihistamine.

Reason (R) Penicillin (G) is effective against gram

positive as well as gram negative bacteria.

A. If both assertion and reason are true and reason is the correct explanation of assertion .

B. If both assertion and reason are true but reason is not the correct explanation of assertion .

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

Answer: D



12. Assertion: Use of aspartame is limited to cold foods and soft drinks

Reason: Aspartame is rougly 100 times as sweet as cane sugar.

A. If both assertion and reason are true and reason is the correct explanation of assertion .

B. If both assertion and reason are true but reason is not the correct explanation of assertion .

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

Answer: B

13. Assertion: Chemicals added to foods for increasing their shelf life are called preservatives.

Reason: Natural sweetners like sucrose and artificial sweetners like saccharin are commonly used as food preservatives.

- A. If both assertion and reason are true and reason is the correct explanation of assertion .
- B. If both assertion and reason are true but reason is not the correct explanation of assertion .
- C. If assertion is true but reason is false.

D. If both assertion and reason are false.

Answer: C



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14. Assertion: Clothes washed with soap using hard water do not absorb dyes evenly.

Reason: Hard water contains calcium and magnesium ions.

A. If both assertion and reason are true and reason is the correct explanation of assertion .

B. If both assertion and reason are true but reason is not the correct explanation of assertion .

C. If assertion is true but reason is false.

D. If both assertion and reason are false.

Answer: B



15. Assertion: Detergents with straight chain of hydrocarbons are preferred over branched chain.

Reason: Detergents with brached chain hydrocarbon part are expensive.

- A. If both assertion and reason are true and reason is the correct explanation of assertion .
- B. If both assertion and reason are true but reason is not the correct explanation of assertion .
- C. If assertion is true but reason is false.
- D. If both assertion and reason are false.



View Text Solution

Drugs And Their Classification

1. The	use	of	chemicals	for	treatment	of	diseases	is
called	as:							

- A. chemotherapy
- B. physiotherapy
- C. angiotherapy
- D. polytherapy.

Answer: A



2. Which of the following is a criteria to calssify drugs
?

- A. Chemical stucture
- B. Moleclar targets
- C. Drug action
- D. All of these.

Answer: D



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Drug Target Interaction

- **1.** What type of forces bind the substrate to the active site of enzyme ?
- (i) Ionic bonding (ii) Hydrogen bonding (iii) van der Waals forces (iv) Reaction with functional group of enzymes
 - A. (i),(ii) and (iv)
 - B. (i),(iii) and (iv)
 - C. (i),(ii) and (iii)
 - D. (i),(ii),(iii) and (iv)



2. Some drug do not bind to the enzyme's active site, instead bind to a different site of enzyme. This site is called.

A. allosteric site

B. substrate site

C. ionic site

D. competitve site.

Answer: A



3. Which of the following is not true about drug receptors?

A. Receptor proteins are embedded in the cell membrane.

B. The chemical known as chemical messengers are received at the binding sites of receptors.

C. The receptors show selectively for one chemical messenger over the other .

D. Receptor protein is decomposed and destroyed after removal of chemical messenger .

Answer: D



4. Drugs that bind to the receptor site and inhibit its natural function are called :



Therapeutic Action Of Different Classes Of Drugs

1. The main cause of acidity in the stomach is

A. release of extra gastric acids which decrease the

pH level

- B. indigestion and pain in larger intestine
- C. increase the pH level in the stomach
- D. release of extra bile juice which increases alkaline medium in stomach.

Answer: A



- 2. Which of the following will not act as antacid?
 - A. Sodium hydrogencarbonate
 - B. Magnesium hydroxide

- C. Sodium carbonate
- D. Aluminium carbonate



- 3. Antihistamines are not helpful
 - A. in curing nasal allergies
 - B. in treating rashes caused by itching
 - C. in bringing down acute fever
 - D. in vasodilation



- **4.** The drugs which are given to the patients suffering from anxiety and metal tension are known as
 - A. tranquilizers
 - B. analgesics
 - C. antimicrobials
 - D. antibiotics.

Answer: A



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- **5.** Which of the following will not act as tranquilizer?
 - A. Equanil
 - B. Analgin
 - C. Meprobamate
 - D. Chlordiazepoxide

Answer: B



6. Which of the following is scientific explanation of depression ?

A. An increased level of sugar in the blood leads to depression .

B. Low levels of noradrenaline, a neurotransmitter in the blood leads to depression .

C. Release of extra gastric juices in the stomach leads to depression.

D. Sleep inducing drugs lead to depression.

Answer: B



7. Whicl	n of	the f	ollowi	ng is	not	antic	lepre	ssants	?

A. Ipronizxid

B. Phenelzine

C. Equanil

D. Salvarsan

Answer: D



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8. Barbituric acid and its derivatives are well known as

- A. tranquilizers
- B. antiseptics
- C. analgesics
- D. antipyretics.

Answer: A



- 9. Barbiturates acts as
 - A. hypnotic i.e., sleep producing agents
 - B. non-narcotic analgesics

C. activator of neutrotransmitters

D. antiallergic drugs.

Answer: A



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10. Which of the following compounds represents an analgesic ?



Answer: A



11. Which of the following can be used as an analgesic without causing addictions?

- A. Morphine
- B. Aspirin
- C. Heroin
- D. Codeine

Answer: B



12. Substances used in bringing down the body temperature in high fevers are called:

- A. analgesics
- B. antipyretics
- C. antihistamines
- D. tranquilizers.

Answer: B



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13. Which of the following is a narcotic analgesic?

A. Ibuprogen					
B. Aspirin					
C. Paracetamol					
D. Morphine					
Answer: D					
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14. A drug that is antipyretic as well as analgesic is:					
A. chloroquine					
B. penicillin					

- C. chlordiazepoxide
- D. 4-acetamidophenol

Answer: D



- 15. Which of the following defines the term opiates?
 - A. Narcotic analgesics obtained from the oprium poppy.
 - B. Non-narcotic analgesics which reduce fever.

C. Narcotic drugs that inhibit pathogenic microbes

.

D. Tranquilizers used to induce sleep .

Answer: A



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16. Antimicrobial drugs include

(i) antiseptics (ii) antibiotics (iii) disinfectants

A. (i) and (ii)

B. (i) and (iii)

- C. (ii) and (iii)
- D. (i), (ii) and (iii)

Answer: D



- 17. Which of the following is not an antibiotics?
 - A. Chloramphenicol
 - B. Ofloxacin
 - C. Penicillin
 - D. Phenelzine

Answer: D



18. The antibiotic which is effective against certain strains of cancer cells

- A. dysidazirine
- B. sulphanilamide
- C. vancomycin
- D. ofloxacin.

Answer: A



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19. Which among the following is not an antibiotic?

- A. Chloramphenicol
- B. Oxytocin
- C. Erythromycin
- D. Tetracyclin

Answer: B



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20. A drug which is effective in curing malaria is

A. aspirin
B. quinine
C. morphine
D. analgin .
Answer: B
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21. An ester which is used as a medicine
A. ethyl acetate

B. methyl acetate

- C. methyl salicylate
- D. ethyl benzoate.

Answer: C



- 22. Which of the following antibiotics is bactericidal?
 - A. Erthromycin
 - B. Tetracycline
 - C. Penicillin
 - D. Chloramphenicol

Answer: C



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23. Which one is broad spectrum antibiotic?

- A. Chloramphenicol
- B. Plamoquine
- C. Xylocaine
- D. Antiseptic

Answer: A



24. The structure given below is known as

$$O_2N - CH - CH - CH_2OH$$
OH

A. prontosil

B. sulphapyridine

C. chloramphenicol

D. chloroxylenol.

Answer: C



- 25. The term 'broad spectrum antibiotics ' means
 - A. bactericidal antibiotics
 - B. bacteriostatic antibiotics
 - C. which kill or inhibit a wide range of gram -ve and gram +ve bacteria
 - D. which kill or inhibit all types of gram +ve bacteria .

Answer: C



26. Which of the following statements is not correct about penicillium?

A. Penicillin G has a narrow spectrum.

B. It is extracted from antibacterial fungus

Penicillium.

C. Ampicillin and amoxycillin are synthetic modifications of penicillins.

D. It has bacteriostatic effect.

Answer: D



27.	Antiseptics	are	the	chemic	cals	which	either
	or		the	growth	of	microor	ganism
and	are applied a	as the	<u> </u>	·			

- A. kill, prevent, living tissues
- B. kill, prevent, non-living objects
- C. increase , decrease , living tissues
- D. kill, increase, non-living tissues

Answer: A



28. Match the durg in column I with the examples given in column II and mark the appropriate choice .

Column I			Column II		
(A)	Antibiotic	(i)	Codeine		
(B)	Antiseptic	(ii)	Phenelzine		
(C)	Analgesic	(iii)	Chloramphenicol		
(D)	Tranquilizer	(iv)	Chloroxylenol		

A.

$$(A)
ightarrow (i), (B)
ightarrow (iii), (C)
ightarrow (ii), (D)
ightarrow (iv)$$

В.

$$(A)
ightarrow (iv), (B)
ightarrow (ii), (C)
ightarrow (iii), (D)
ightarrow (i)$$

C.

$$(A)
ightarrow (ii), (B)
ightarrow (iv), (C)
ightarrow (i), (D)
ightarrow (iii)$$

D.

$$(A)
ightarrow (iii), (B)
ightarrow (iv), (C)
ightarrow (i), (D)
ightarrow (ii)$$

Answer: D



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29. Which of the following statement is not correct?

A. Some disinfectants can be used as antiseptic at low concentration .

B. Aspirin is analgesic and antipyretic.

C. Norethindrone is an anti histamine.

D. Chloramphenicol is a broad spectrum antibiotic

.

Answer: C



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30. Which of the following statements is not correct?

- A. Antiseptics can be safely applied to the living tissues.
- B. Antiseptics can be incorporated into deodrants , face powders and soaps.

- C. Disinfectants can also be applied to the skin safely.
- D. A very dilute solution of a few disinfectants can be used as antiseptics.

Answer: C



- **31.** Which of the following statements is incorrect?
 - A. Aspirin is both analgesic and antipyretic.
 - B. Ampicillin is a natural antibiotic.

- C. Salvarsan is toxix to human beings .
- D. Some disinfectants are used as antiseptics in lower concentrations.

Answer: B



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- 32. What is tincture of iodine? What is its use?
 - A. 2-3% solution of iodine in alcohol-water mixture

B. A mixture of iodine in chloroxylenol.

C. A mixture of 0.2% phenol and 2-3% iodine in water .

D. 2-3% solution of iodine in potassium iodide.

Answer: A



33. The main constituents of dettols are

A. chloramphenicol + glycerol

B. 2-3% solution of iodine in alcohol

C. 0.2% solution of phenol.

D. chloroxylenol and terpineol.

Answer: D



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34. Which of the following is not true about antifertility drugs.?

A. Birth control pills contain a mixture of synthetic estorgen and progesterone derivatives.

B. Both compounds i.e., estrogen and progesterone are vitamins .

- C. Progestrone is supposed to suppress ovulation.
- D. Norethindrone is an example of synthetic progesterone derivative.

Answer: B



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35. Match the column I with column II and mark the appropriate choice .

Column I		Column II		
(A)	Bacteriostatic	(i)	Crucial to body's communication process	
(B)	Bactericidal	(ii)	Inhibit growth of microbes	
(C)	Narrow spectrum antibiotics	(iii)	Kill microbes	
(D)	Receptors	(iv)	Effective against single disease	

A.

$$(A)
ightarrow (i), (B)
ightarrow (ii), (C)
ightarrow (iv), (D)
ightarrow (iii)$$

В.

$$(A)
ightarrow (ii), (B)
ightarrow (iii), (C)
ightarrow (iv), (D)
ightarrow (i)$$

C.

$$(A)
ightarrow (iii), (B)
ightarrow (iv), (C)
ightarrow (i), (D)
ightarrow (ii)$$

D.

(A)
ightarrow (iv), (B)
ightarrow (i), (C)
ightarrow (ii), (D)
ightarrow (iii)

Answer: B



Chemicals In Food

1. Name an artificial sweetener which is derivative of sucrose.

A. Saccharine

B. Sucrolose

- C. Sucrobenzamide
- D. Aspartame

Answer: B



- **2.** Aspartame, the artificial sweetener is made of a dipeptide of the amino acids,
 - A. aspartic acid and phenylalanine
 - B. aspartic acid and glycine
 - C. alanine and glycine

D. aspartic acid and glucatamic acid.

Answer: A



3. What problem arises in using alitame as artificial sweetener?

A. It decomposes when added to the food items.

B. It provides a huge amount of calories to the food.

C. It is difficult to control the sweetness of food while using it.

D. It increases the volume of the contents to a large extent.

Answer: C



4. Why is use of aspartame limited to cold foods and drinks?

- A. it is unstable to heat and decomposes at cooking temperature
- B. it is 500 times sweeter than cane sugar
- C. it becomes bitter at cooking temperature
- D. it reacts with the food at cooking temperature.

Answer: A



5. Match the column I with column II and mark the appropriate choice .

Column I			Column II		
(A)	Alitame	(i)	Antihistamine		
(B)	Iodoform	(ii)	Artificial sweetener		
(C)	Prontosil	(iii)	Antibacterial agent		
(D)	Terfenadine	(iv)	Antiseptic		
(D)	Terfenadine	(iv)	Antiseptic		

A.

$$(A)
ightarrow (i), (B)
ightarrow (ii), (C)
ightarrow (iv), (D)
ightarrow (iii)$$

В.

$$(A)
ightarrow (ii), (B)
ightarrow (iv), (C)
ightarrow (iii), (D)
ightarrow (i)$$

C.

$$(A)
ightarrow (iii), (B)
ightarrow (i), (C)
ightarrow (ii), (D)
ightarrow (iv)$$

D.

$$(A)
ightarrow (iv), (B)
ightarrow (iii), (C)
ightarrow (i), (D)
ightarrow (ii)$$

Answer: B

6. The sweeteners value of aspartame in comparison to cane sugar is

- A. 550
- B. 100
- C. 600
- D. 2000

Answer: B



7. Which of the following is not used as a food prevative?

A. Sodium salt of benzoic acid

B. Sodium salt of sorbic acid

C. Sodium salt of propanoic acid

D. Sodium salt of palmitic acid

Answer: D



8. An antioxidant which is added to butter to increase its shelf life from months to years is

- A. Sodium benzoate
- B. Butylated hydroxy anisole
- C. Sulphur dioxide
- D. Butylated hydroxy tolunene

Answer: B



9. ____ and ___ are useful antioxidants for wine and beer .

A. Sulphur trioxide and sulphate

B. BHT and BHA

C. Sulphur dioxide and sulphite

D. None of these

Answer: C



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Cleansing Agents

1. What are the hydrolysis products of glyceryl oleate

 $(C_{17}H_{32}COO)_3C_3H_5$ during preparation of soap?

A.
$$C_{17}H_{32}COONa + C_3H_5OH$$

 $\mathsf{B.}\ C_{17}H_{32}COOH + CH_3CH_2CH_2OH$

C.

$$C_{17}H_{32}COOH + CH_2OH - CHOH - CH_2OH$$

D.

$$C_{17}H_{32}COONa + CH_2OH - CHOH - CH_2OH$$

Answer: D



- 2. Which of the following is not a correct statement?
 - A. Transparent soap are made by dissolving the soap in ethanol and then evaporating excess solvent.
 - B. Soaps that float in water are made by beating tiny air bubbles before their hardening .
 - C. Medicated soaps contian alcohol to prevent rapid drying .
 - D. Potassium soaps are soft to the skin than sodium soaps.

Answer: C

- **3.** The main difference between bathing and washing soap is
 - A. bathing soap are potassium salts of fatty acids washing soaps are sodium salt of fatty acids .
 - B. bathing soaps are sodium salt of fatty acids while washing soaps are potassium salt of fatty acids
 - C. bathing soaps are cationic in nature while washing soaps are anionic

D. bathing soaps are calcium salts of fatty acids while washing soaps are anionic

Answer: A



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4. Soaps do not work in hard water containing calcium and magnesium ions because

A. $Ca^{2+} \ {
m and} \ Mg^{2+}$ ion form insoluble calcium and magnesium salts in the form of scum

B. Na^+ and K^+ present in soap react with Ca^{2+} and Mg^{2+} and hinder cleansing process

C. a large amount of soap is to be used in presence of $Ca^{2+} \; {
m and} \; Mg^{2+}$

D. scum formed by combination of Na^+, Ca^{2+} and Mg^{2+} stick to the cloth and are not removed on agitations.

Answer: A



5. Which is not true for a detergent molecule?

- A. It has a non-polar organic part and a polar group.
- B. It is not easily biodegraded.
- C. It is a sodium salt of fatty acids.
- D. It is a surface active reagent.

Answer: C



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6. Examples of three detergents are given below. Mark the correct statement following the examples.

(I)
$$CH_3(CH_2)_{10}CH_2OSO_3^-Na^+$$

(II) $CH_3(CH_2)_{11}$ \longrightarrow $SO_3^-Na^+$
(III) CH_3 CH_3

is biodegradable.

A. I and II are non-biodegradable detergents and III

B. I and II are biodegradable detergents and III is non-biodegradable .

C. I, II and III are non-biodegradable detergents.

D. I is biodegradable and II, III are nonbiodegradable.

Answer: B

7. Which of the following is na example of non-biodegradable detergent?

C.
$$CH_3 \leftarrow CH_2 \rightarrow CH_3 \rightarrow CH_3$$

D.
$$CH_3 - (CH_2)_{10} - CH_2 - OSO_3Na$$

Answer: C



- **8.** Which of the following is not a true statement about the detergents?
 - A. Anionic detergents are sodium salts of sulphonated long chain alcohols or hydrocarbons.
 - B. Cationic detergents are quarternary ammonium salts of amines with acetates, chlorides or bromides as an ions.
 - C. Non-ionic detergents do not contain any ion in their constitution.

D. Detergents containing branched hydrocarbons chains are biodegradable.

Answer: D



9. Identify the hydrophilic and hydrophobic parts in the following non-ionic detergetnt present in liquid

detergents and wetting agents.

Hydrophobic part

Hydrophilic part

(a)
$$-CH_2CH_2OH$$

$$C_9H_{19}$$
 \longrightarrow $O(CH_2CH_2O)_{10}$

(p)
$$C^{0}H^{1}$$
 O-

$$-\mathrm{O}(\mathrm{CH_2CH_2O})_{10}\mathrm{CH_2CH_2OH}$$

(c)
$$C_9H_{19}$$
 $O-$

$$-(CH_2CH_2O)_{10}CH_2CH_2OH$$

(d)
$$-(CH_2CH_2O)_{10}CH_2CH_2OH C_9H_{19}$$

$$C_9H_{19}$$
 $O-$



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10. Match the column I with column II and mark the appropriate choice.

	Column I	Column II		
(A)	CH ₃ (CH ₂) ₁₀ CH ₂ OSO ₃ ⁻ Na ⁺	(i)	Cationic detergent	
(B)	[CH ₃ (CH ₂) ₁₅ N(CH ₃) ₂ -CH ₃] ⁺ Br ⁻	(ii)	Non-ionic detergent	
(C)	CH ₃ (CH ₂) ₁₆ COO(CH ₂ CH ₂ O) _n CH ₂ CH ₂ OH	(iii)	Soap	
(D)	C ₁₇ H ₃₅ COONa	(iv)	Anionic detergent	

A.

(A)
ightarrow (iii), (B)
ightarrow (ii), (C)
ightarrow (iv), (D)
ightarrow (i)

В.

(A)
ightarrow (ii), (B)
ightarrow (iv), (C)
ightarrow (i), (D)
ightarrow (iii)

C.

(A)
ightarrow (i), (B)
ightarrow (iii), (C)
ightarrow (iv), (D)
ightarrow (ii)

D.

(A)
ightarrow (iv), (B)
ightarrow (i), (C)
ightarrow (ii), (D)
ightarrow (iii)

Answer: D



- 1. Which of the following statements is not correct?
 - A. Some antiseptics can be added to soaps.
 - B. Dilute solutions of some disinfectants can be used as antiseptic.
 - C. Disinfectants are antimicrobial drugs.
 - D. Antiseptic medicines can be ingested .

Answer: D



2.	Which	is the	correct	statement	about	birth	contro
pi	lls?						

- A. Contain estogen only
- B. Contain progesterone only
- C. Contain a mixture of estrogen and progesterone derivatives
- D. Progesterone enhances ovulation.

Answer: C



3. Which statement about aspirin is not true?
--

- A. Aspirin belongs to narcotic analgesics.
- B. It is effective in relieving pain.
- C. It has antiblood clotting action.
- D. It is a neurologically active drug.

Answer: A



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4. The most useful classification of drugs for medicinal chemists is

- A. on the basis of chemical sturcture
- B. on the basis of drug action
- C. on the basis of molecular targets
- D. on the basis of pharmacological effect

Answer: C



- 5. Which of the following statements is correct?
 - A. Some tranquilizers function by inhibiting the enzymes which catalyse the degradation of

noradrenaline.

B. Tranquilizers are narcotic drugs.

C. Tranquilizers are chemical compounds that do not effect the message transfer from nerve to receptor.

D. Tranquilizers are chemical compounds that can relieve pain and fever.

Answer: A



6. Salvarsan is arsenic containing drug which was first
used for the treatment of
A. syphilis
B. typhoid
C. meningitis
D. dysentry





7. A narrow spectrum antibiotic is active against

- A. gram positive or gram negative bacteria
- B. gram negative bacteria only
- C. single organism or one disease
- D. both gram positive and gram negative bacteria.

Answer: A



- **8.** The compound that causes general antidepressant action on the central nervous system belongs to the class of
 - A. analgesics

- B. tranquilizers
- C. narcotic analgesics
- D. antihistamines.

Answer: B



- **9.** Which of the following enhances leathering property of soap?
 - A. Sodium carbonate
 - B. Sodium resinate

- C. Sodium stearate
- D. Trisodium phosphate

Answer: B



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10. Glycerol is added to soap. It function:

- A. as a filler
- B. to increase lathering
- C. to prevent rapid drying
- D. to make soap granules

Answer: C



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- **11.** Polyethylene glycols are used in the preparation of which type of detergent ?
 - A. Cationic detergents
 - B. Anionic detergents
 - C. Non-ionic detergents
 - D. Soaps

Answer: C



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12. Which of the following is not a target molecule for drug function in body?

- A. Carbohydrates
- B. Lipids
- C. Vitamins
- D. Proteins

Answer: C



13. Which of the following statements is not true about enzyme inhibitors?

A. Inhibit the catalytic activity of the enzyme.

B. Prevent the binding of substrate.

C. Generally a strong covalent bond is formed between an inhibitor and an enzyme.

D. Inhibitors can be competitive or noncompetitive.

Answer: C



14. Which of the following chemicals can be added for sweetening of food item at cooking temperature and does not provide calories?

- A. Sucrose
- B. Glucose
- C. Aspartame
- D. Sucralose

Answer: D



15. Which of the foll	owing will not	enhance nutriti	onal
value of food ?			

- A. Minerals
- B. Artificial sweetners
- C. Vitamins
- D. Amino acids

Answer: B

