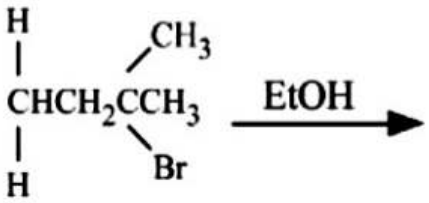
GPAT-2023 (1ST SHIFT)

COMPLETE QUESTION PAPER WITH ANSWER KEY

(Officially According to NTA)

Pharma Chem and Allied Subjects

Que- 1.



Choose the correct and the major product formed in the above-given reaction from the choices listed below:

1. 2-Pentene
2. 2-Methyl-2-butene
3. 1-Pentene
4. 1-Methyl-2-butene

Que- 2. The following are the processes occurring during flame atomization in atomic absorption spectrometry

A. Volatilization

B. Ionization

C. Nebulization

D. Desolvation

E. Dissociation

Arrange the processes in sequential order and choose the correct answer from below:

1. C, B, A, D, E

2. C, D, E, B, A

3. A. C. D. B. E

4. C, D, A, E, B

Que- 3. A mixture of p-anisaldehyde and formaldehyde in the presence of concentrated sodium hydroxide results in:

1. p-Methoxy sodium benzoate
2. Sodium-p-methoxy benzene
3. P-Methoxy benzyl alcohol
4. p-Methoxy benzoyl alcohol

Que- 4. Which one of the following compound is a precursor for the biosynthesis of cholesterol?

1. Progesterone
2. Lanosterol
3. Cholic acid
4. Coprostanol

Que- 5 Which one among the following drugs has the IUPAC name, $a, a, \overline{a}, \overline{a}$ - tetramethyl 5- (1 H-1,2,4-triazole- 1-ylmethyl)-1,3-benzenediacetonitrile :

1. Letrozole
2. Anastrozole
3. Exemestane
4. Aminoglutethimide

Que- 6. The reaction between naphthalene and chromium trioxide in the presence of glacial acetic yields :

1. Naphthalene-1,4-dione
2. 4-Hydroxynaphthalen-1(4H)-one
3. Naphthalene-1,2-dione
4. 1-Hydroxynaphthalen-2(1H)-one

Que- 7. Platinum electrode surrounded by an outer tube, in which hydrogen passes entering through side inlet and escaping at the bottom through the test solution, is called as :

1. Silver electrode
2. Calomel electrode
3. Standard hydrogen electrode
4. Indicator electrode

Que- 8. Which of the following gives correct rank order from fastest to slowest of the relative rates in SN2 reaction of methyl bromide, tert-butyl bromide, isopropyl bromide and ethyl bromide :

1. Methyl bromide > Ethyl Bromide > Isopropyl bromide > tert-Butyl bromide
2. tert-Butyl bromide > Isopropyl bromide > Ethyl Bromide > Methyl bromide
3. Ethyl bromide > Methyl Bromide > Isopropyl bromide > tert-Butyl bromide
4. Methyl bromide > Ethyl Bromide > tert-Butyl bromide > Isopropyl bromide

Que- 9. Select the correct set of anticancer drugs that belong to "pyrimidine and related compounds"

1. 5-Flurouracil, Tegafur, Decitabine, 5-Azacytidine
2. 5-Flurouracil, Tegafur, Decitabine, Clofarabine
3. Tegafur, Decitabine, 5-Azacytidine, Clofarabine
4. Tegafur, Decitabine, 5-Azacytidine, Pentostatin

Que- 10. E2 elimination converts neomenthyl chloride into a mixture of the following compounds:

1. 3-menthene (75%) and 2-menthene (25%)
2. 4-menthene (75%) and 2-menthene (25%)
3. 3-menthene (25%) and 5-menthene (75%)
4. 1-menthene (50%) and 3-menthene (50%)

Que- 11. Ethyl-2 (p-chlorophenoxy)-2-methyl propionate is IUPAC name of :

1. Fenofibrate
2. Colestipol
3. Clofibrate
4. Colesevelam

Que- 12. Identify the vibrational modes shown by sulfur dioxide molecule in IR spectroscopy:

1. Symmetric stretching and asymmetric stretching
2. Symmetric stretching and scissoring

3. Asymmetric stretching and scissoring

4. Symmetric stretching, asymmetric stretching and scissoring

Que- 13. Establishing a complete structure of _____ is more complex problem than others.

1. polysaccharide

2. protein

3. nucleic acid

4. peptide

Que- 14. Which one is not the characteristics of the Hexose Monophosphate Pathway?

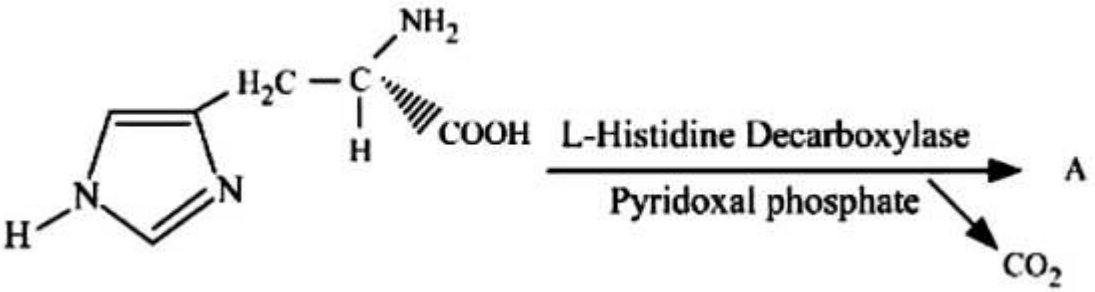
1. It produces CO_2

2. It requires ATP for phosphorylation

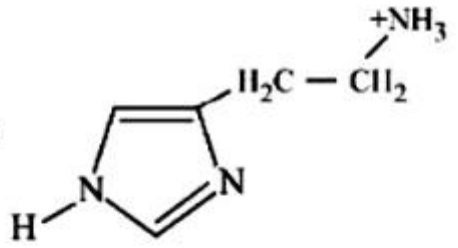
3. It is controlled by inhibition of glucose-6 phosphate dehydrogenase by NADPH

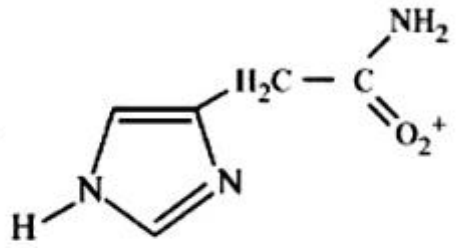
4. It produces ribose-5-phosphate

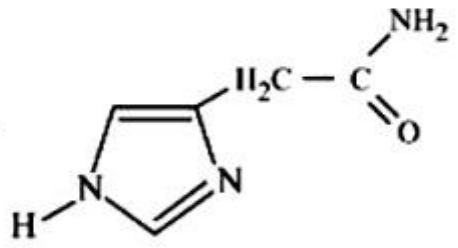
Que- 15

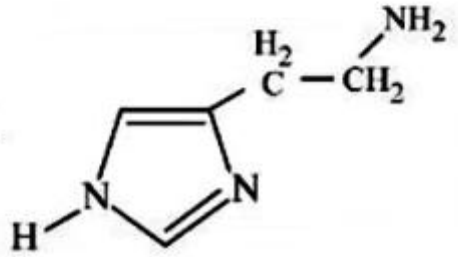


Select the correct product A of the above-given reaction from the four choices given below :

1. 

2. 

3. 

4. 

Que- 16. The law of relative lowering of vapour pressure was given by :

1. Raoult
2. Ostwald
3. Henry
4. Van't Hoff

Que- 17. Dipole-dipole weak interactions are also called as :

1. London forces
2. Debye interactions

3. Electrovalent forces

4. Keesom forces

Que- 18. The perfect orientation for a Diels-Alder reaction between the reactants is:

1. Diene should be S-cis and reaction endo facing

2. Diene should be S-cis and reaction exo facing

3. Diene should be S-trans and reaction endo facing

4. Diene should be S-trans and reaction exo facing

Que- 19. How would you prepare 2000 mL of 0.15 M NaOH aqueous solution?

1. Dissolve 12 g of NaOH in distilled water and dilute to 2000 mL

2. Dissolve 15 g of NaOH in distilled water and dilute to 2000 mL

3. Dissolve 10 g of NaOH in distilled water and dilute to 2000 mL

4. Dissolve 7.5 g of NaOH in distilled water and dilute to 2000 mL

Que- 20. Given below are two statements, one is labelled as Assertion and the other is labelled as Reason

Assertion (A): The disadvantage of atomic absorption spectroscopy is the need for each element to be analysed. https://www.pyqonline.com

Reason (R): As atomic absorption spectrophotometer uses different halocathode lamp for each element, it is very specific for an individual element under test.

In light of the above statements, choose the correct answer from the options given below :

1. Both A and R are true and R is the correct explanation of A
2. Both A and R are true but R is NOT the correct explanation of A
3. A is true but R is false
4. A is false but R is true

Que- 21. In context to voltametry, which of the following statement is false?

1. Technique can be used to analyse organic compounds containing carbonyl groups
2. Organic solvents cannot be used as aqueous organic mixture in this technique
3. Immuno sensors are available in voltametry
4. Triangular waveform is used for excitation of solution in cyclic voltametry

Que- 22. Choose the correct order of decreasing dielectric constant :

1. Water > Formamide > Methanol > Acetone
2. Water > Methanol > Acetone > Formamide
3. Formamide > Acetone > Methanol > Water
4. Formamide > Water > Methanol > Acetone

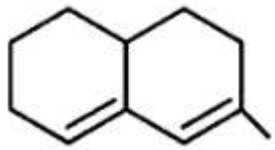
Que- 23. How many optical isomers are possible for lactic acid?

1. 2
2. 4
3. 6
4. 8

Que- 24. Following is an example of atypical anti-psychotic

1. Haloperidol
2. Clozapine
3. Thioridazine
4. Fluphenazine

Que- 25.



Predict the wavelength of absorption band in the UV spectrum of the above shown structure:

1. 252 nm
2. 248 nm
3. 244 nm
4. 240 nm

Que- 26. Identify what is not a continuum source of radiation for use in absorption and fluorescence spectrophotometers

1. Argon arc lamp
2. Hollow-cathode lamp
3. Deuterium lamp
4. Xenon arc lamp

Que- 27. The molecular formula of purine is:

1. $C_5H_4N_4$

2. $C_6H_5N_3$

3. $C_7H_6N_2$

4. $C_4H_3N_5$

Que- 28. Match List I with List II

LIST I	LIST II
Name of Vitamin	Functions of Vitamins
A. Riboflavin	I. The electron acceptor for isocitrate dehydrogenase
B. Niacin	II. Decarboxylation of alpha-ketoglutarate dehydrogenase
C. Thiamine	III. Part of coenzyme A
D. Pantothenic acid	IV. Cofactor for succinate dehydrogenase
	V. Enzyme activity regulator, such as for protein kinase C

Choose the correct answer from the options given below:

1. A-IV, B-I, C-II, D-III

2. A-III, B-II, C-IV, D-V

3. A-I, B-III, C-IV, D-II

4. A-II, B-V, C-I, D-IV

Que- 29. Electrophilic substitution reaction of pyridine, when carried out in the presence of KNO3 and conc. H2SO4 at 300°C, leads to the formation of:

1. 4-Nitropyridine

2. 3-Nitropyridine

3. 2-Nitropyridine
4. N-nitro pyridinium salt

Que- 30. A reagent may attach itself to a conjugated diene to the carbons at the two ends of the conjugated system. Identify the reaction involved from the following:

1. 1.2-addition
2. 1,4-addition
3. 1.3-addition
4. 2.4-addition

Que- 31. Invert sugar is a product obtained by the hydrolysis of:

1. Maltose
2. Sucrose
3. Lactose
4. Dextrin

Que- 32. Following groups exert anyone of the effects on electrophilic aromatic substitution

Identify whether all three are :

1. Weakly activating
2. Deactivating
3. Moderately activating
4. Strongly activating

Que- 33. DNA and RNA contain the following two major purine bases :

1. Guanine and cytosine
2. Adenine and guanine
3. Thymine and uracil
4. Adenine and uracil

Que- 34. The correct rank order of orientation of sulfonation in toluene is:

1. 4-methylbenzenesulfonic acid **>** 2-methylbenzenesulfonic acid **>** 3-methylbenzenesulfonic acid
2. 2-methylbenzenesulfonic acid **>** 3-methylbenzenesulfonic acid **>** 4-methylbenzenesulfonic acid
3. 3-methylbenzenesulfonic acid **>** 4-methylbenzenesulfonic acid **>** 2-methylbenzenesulfonic acid
4. 3-methylbenzenesulfonic acid **>** 2-methylbenzenesulfonic acid **>** 4-methylbenzenesulfonic acid

Que- 35. Lucas test is very rapid with :

1. 1^0 alcohol
2. 2^0 alcohol
3. 3^0 alcohol
4. Phenol

Que- 36. Following is not an example of carbapenem

1. Thienamycin
2. Imipenem

3. Piperacillin

4. Meropenem

Que- 37. As the solution of a strong electrolyte is diluted, the following phenomenon is observed:

1. The specific conductance decreases and equivalent conductance increases

2. The specific conductance increases and equivalent conductance decreases

3. Both specific conductance and equivalent conductance increase

4. Both specific conductance and equivalent conductance decrease

Que- 38. The molecule having zero dipole moment is

1. BF_3

2. HF

3. NH_3

4. CH_3Cl

Pharmaceutics and Allied Subjects -

Que- 1. The time taken at a fixed temperature or the radiation dose required to achieve a 90% reduction in viable bacterial cells is called:

1. F value

2. Z value

3. D value

4. T value

Que- 2. In pharmacokinetic models, the term "compartment" means

1. Blood
2. Individual organ
3. Extracellular fluid
4. Hypothetical pool of tissue

Que- 3. Which of the following pharmaceutical solvent has the highest dielectric constant, at 25 degree C ?

1. Glycerin
2. Ethanol
3. Acetone
4. Phenol

Que- 4. Kozeny Carmen equation is used to determine the

1. surface area of the powder
2. viscosity of a liquid
3. surface tension of a liquid
4. density of a liquid

Que- 5. Which of the following emulsifiers has the highest HLB value?

1. Span 80
2. Acacia
3. Tween 80
4. Sodium lauryl sulfate

Que- 6. Which of the following substances are not used as humectants in emulsions?

1. Propylene glycol
2. Sorbitol
3. Tocopherol
4. Glycerol

Que- 7. Under which of the following conditions in-vitro-in-vivo correlation for a drug fails?

1. When the drug is highly soluble
2. When the drug's absorption takes place by a complex process
3. When the dissolution medium is adequately simulated
4. When the drug is highly permeable but poorly soluble

Que- 8. A crystalline powder that contains water of crystallization or hydration; this water can be liberated either during manipulations or an exposure to a low - humidity environment -- then the powder will become sticky and pasty, or it may even liquefy. Such a powder is called:

1. Eutectic
2. Hygroscopic
3. Deliquescent
4. Efflorescent

Que- 9. Out of the following solvents which one is not a polar solvent?

1. Ethanol
2. Methanol

3. Hexane
4. Water

Que- 10. Which of the following Urinary Tract Anti-Infective agents requires an acidic pH of urine for optimum action?

1. Gentamicin
2. Erythromycin
3. Carbenicillin
4. Streptomycin

Que- 11. Which of the following molecular properties can be determined by Thermogravimetric Analysis?

1. Solubility
2. Hygroscopicity
3. Colour stability
4. Hydrolysis

Que- 12. Which of the following levels of IVIVC is represented by "the relationship between one dissolution time point (e.g. t 50%) and one mean pharmacokinetic parameter, such as AUC, T_{max} or C_{max}" ?

1. Level A
2. Level B
3. Level C
4. Level D

Que- 13. Which of the following USP Glass Types is NOT SUITABLE for parental packaging?

1. Type I
2. Type II
3. Type III
4. Type IV

Que- 14. The difference in velocity between two planes of liquids separated / infinitesimal distance is called

1. Rate of shear
2. Rate of flow
3. Rate of force
4. Shearing stress

Que- 15. The required amount of adjusting substance required to make a hypotonic solution, isotonic is given by the (where, W = adjusting substance, a = freezing point depression of unadjusted solution and b = freezing point depression of water):

1. $W = \frac{a-0.52}{b}$
2. $W = \frac{0.52-a}{b}$
3. $W = \frac{0.52-b}{a}$
4. $W = \frac{b-0.52}{a}$

Que- 16. Which of the following is the common chemical name for Propellant 11?

1. Trichloromonofluoromethane
2. Dichlorodifluoromethane

3. Dichlorotetrafluoroethane

4. Chloropentafluoroethane

Que- 17. A component of film-coating solution to make film more pliable, enhance spread over tablets, beads and granules, is called :

1. Adsorbent

2. Humectant

3. Stiffening agent

4. Plasticizer

Que- 18. Match the following List I with List II with respect to most specific Activity / Property in formulation of disperse system

LIST I	LIST II
Formulation Ingredient	Activity/Property
A. Salts of d-glucuronic acid polypeptides and amino acids	I. Are pseudoplastic and plastic in nature
B. Surfactants, both ionic and nonionic	II. Form a multimolecular film around the dispersed droplets of oil in an o/w emulsion
C. Magnesium aluminium silicate	III. Emulsifier belonging to the class of solid particles forms w/o emulsion
D. Structured vehicles	IV. Emulsifier belonging to the class of IV. solid particles and forms o/w emulsion
	V. Have been used to bring about flocculation of suspended particles

Choose the correct answer from the options given below:

1. A-II, B-V, C-IV, D-I
2. A-V, B-IV, C-II, D-I
3. A-V, B-IV, C-III, D-I
4. A-IV, B-III, C-II, D-I

Que- 19. Match the process of reproduction and genetic exchange under column I with the explanation under column II

Match List I with List II

LIST I Process of reproduction and genetic exchange	LIST II Explanation
A. Binary Fision	I. Transfer of genetic material from the donor to recipient bacterium through cell contact
B. Transformation	II. Common vegetative reproduction
C. Transduction	III. Transfer of genetic material in bacteria through virus
D. Conjugation	IV. Horizontal gene transfer by taking up of foreign genetic material (naked DNA)

Choose the correct answer from the options given below:

1. A-I, B-III, C-IV, D-II
2. A-III, B-I, C-IV, D-II
3. A-II, B-IV, C-I, D-III
4. A-II, B-IV, C-III, D-I

Que- 20. Clear, sweetened hydroalcoholic solutions intended for oral use, usually flavoured to enhance their palatability, are called :

1. Aromatic waters
2. Elixirs
3. Syrups
4. Tinctures

Que- 21. Which of the following Climatic Zones (as per WHO Criteria) refers to "hot and humid climate"?

1. Zone I
2. Zone II
3. Zone III
4. Zone IV

Que- 22. Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A: Exotoxins diffuse freely through the bacterial cell wall into the medium in which the organisms are growing

Reason R: They are water soluble and can pass into the surrounding medium

In the light of the above statements, choose the correct answer from the options given below:

1. Both A and R are true and R is the correct explanation of A
2. Both A and R are true but R is NOT the correct explanation of A
3. A is true but R is false
4. A is false but R is true

Que- 23. What is the percentage of alcohol in a mixture obtained by mixing 5 L of 25%, 3 L of 40% and 2 L of 15% alcohol?

1. 27.5% v/v
2. 30.5% v/v
3. 25.5% v/v
4. 26.5% v/v

Que- 24. For disguising the astringent and metallic taste of iron salts in children's mixture, the following flavoring agent in used

1. Orange syrup and compound orange syrup
2. Lemon syrup
3. Liquorice liquid extract
4. Aromatic water

Que- 25. A tablet excipient, whose function is to ensure that tablet formulation and ejection can occur with low friction between the solid and the die wall, is called:

1. Glidant
2. Lubricant
3. Anti-adhesive
4. Binder

Que- 26. Clatharates crystallize in the form of

1. channel type structure
2. tetragonal type structure
3. cubic type lattice
4. cage like lattice

Que- 27. Which of the following ointment bases is an "absorption base"?

1. Yellow ointment, USP
2. Hydrophilic petrolatum USP
3. Hydrophilic ointment USP
4. PEG ointment NF

Que- 28. Which of the following drugs has an apparent volume of distribution approximately 6500 litres?

1. Amoxicillin
2. Ibuprofen
3. Chloroquine
4. Diazepam

Que- 29. Which of the following surfactants is an ANIONIC surfactant?

1. Lecithin
2. Sorbitan esters
3. Benzalkonium chloride
4. Soaps

Que- 30. Match the following concept in List I with parameters in List II

LIST II	LIST I
Concept	Parameters
A. Volume of Distribution	I. Measure volume of real physiological plasma
B. Evans Blue	II. Human serum albumin
C. 3.5-5%	III. Volume of blood

D. Metallothionin	IV. Ratio of body drug content to plasma concentration
	V. Protein present in kidney to bind metal

Choose the correct answer from the options given below:

1. A-I. B-II, C-III, D-IV
2. A-V, B-IV, C-III, D-II
3. A-IV, B-I, C-II, D-V
4. A-III, B-II, C-IV. D-V

Que- 31. Basic dyes are used in microbiological staining. Which of the following statement is wrong about mechanism of staining?

1. The positive ions on the surface of bacteria form a colored complex with the dye
2. Ionic exchange between the negative charge on the bacteria and positive charge of dye takes place
3. Ionic exchange between the positive charge on the bacteria and negative charge of dye takes place
4. The neutral charge on the surface of bacteria forms a colored complex with the basic dye

Que- 32. Which of the following terms is used to describe the "partial or complete separation of the top or body crowns of a tablet from the main body of the tablet"?

1. Lamination
2. Capping
3. Picking
4. Mottling

Que- 33. Which of the following formulations are "pharmaceutically equivalent" ?

Match List I with List II

Ingredient		Function		Tablet A	Tablet B	Tablet C	Tablet D
A.	Acetaminophen	I.	Drug	300 mg	---	300 mg	300 mg
B.	Aspirin	II.	Drug	---	300 mg	---	---
C.	Loctose	III.	Filler	100 mg	100 mg	---	100 mg
D.	Avicel	IV.	Filler	---	---	100 mg	---
	Starch		Disintegrant	50 mg	50 mg	---	50 mg
	Avicel		Disintegrant	---	---	50 mg	---
	Mag stearate		Lubricant	2 mg	2 mg	2 mg	2 mg
	Gelatin		Binder	10 mg	10 mg	10 mg	10 mg

Choose the correct answer from the options given below:

1. A and B
2. B and C
3. A and C
4. B and D

Que- 34. What is the approximate amount of Powder (in mg) that can be filled in empty gelatin capsules of size 00?

1. 1040 mg
2. 650 mg
3. 325 mg
4. 162 mg

Que- 35. The interfacial forces are related to the contact angle by

1. Nernst Equation
2. Stoke's Equation
3. Young's Equation
4. Laplace Equation

Que- 36. In the Langmuir Isotherm, following statements are true except one:

1. The layer of the gas adsorbed on the solid adsorbent is one molecule thick
2. Adsorbed layer is uniform all over adsorbent
3. No desorption takes place when gas strikes solid surface
4. No interaction between the adjacent adsorbed molecules takes place

Que- 37. In absence of instruction by the prescriber, unless otherwise directed, the dose given for the mixture preparation should be stated on the label as https://www.pyqonline.com

1. One five ml spoonful to be taken three times a day in water
2. Two five ml spoonful to be taken three times a day in water
3. Two five ml spoonful to be taken two times a day in water
4. One five ml spoonful to be taken two times a day in water

Que- 38. Suspensions containing a high percentage (about 50% or greater) of small, deflocculated particles would show which of the following flow properties?

1. Plastic flow

2. Dilatant flow

3. Newtonian flow

4. Pseudoplastic flow

Pharmacognosy and Allied Subjects -

Que- 1. Which one is the right sequence of the intermediates in the biosynthesis of opium alkaloids-

A. Tyrosine

B. Reticuline

C. Codeine

D. Morphine

E. Thebaine

Choose the correct answer from the options given below:

1. A. B. C. D. E

2. A. B. E. C. D

3. A. B. E. D. C

4. A, B, D, E, C

Que- 2. Arrange the following intermediates in the synthesis of isoprenoids in the right sequence

A. Squalene

B. Farnesyl PP

C. Geranyl PP

D. Acetyl CoA

E. Mevalonate

Choose the correct answer from the options given below:

1. D. B. C. A. E
2. D, E, C, B, A
3. B, C, D, A. E
4. E. B. C. A. D

Que- 3. If the resins contain benzoic acids or cinnamic acids they are called:

1. Colophony
2. Balsams
3. Glucoresins
4. Resene

Que- 4. Lycopodium spores are used in quantitative microscopy for the following:

A. Determine % purity of drugs

B. Estimation of percentage of foreign organic matter

C. Determination of palisade ratio

D. Measurement of area of single layered tissue

Choose the correct answer from the options given below:

1. A. B and C only
2. A, B and D only
3. A only
4. B and D only

Que- 5. The ring structure present in strychnine alkaloid is:

1. Indole
2. Purine
3. Phenanthrene
4. Imidazole

Que- 6. Isabgol belongs to family

1. Apocynaceae
2. Plantaginaceae
3. Solanaceae
4. Golaceae

Que- 7. Lignin is a complex polymer which can be stained pink in the tissue using the following chemicals

1. Chloral Hydrate and Phloroglucinol
2. Chlor-Zinc-Iodine
3. Phloroglucinol and hydrochloric acid
4. Chloral Hydrate, Zinc and Ammonia

Que- 8. Match the following Ayurvedic formulations under Column I with the process/properties under Column II and choose the correct options.

LIST I	LIST II
Ayurvedic formulations	Process or Property
A. Bhasma	I. Semisolid
B. Arista	II. Calcination
C. Churna	III. Alcohol generation

D. Lehva	IV. Dry powder
	V. Decoction

Choose the correct answer from the options given below:

1. A-I. B-III. C-IV. D-V
2. A-III. B-II. C-I. D-IV
3. A-III. B-V, C-I, D-II
4. A-II, B-III, C-IV, D-I

Que- 9. Match the types of glycosides under Column I with their respective examples under Column II and choose the correct option

Column I	Column II
Glycosides	Examples
A. Anthracene	I. Digitalis
B. Cardiac	II. Licorice
C. Saponin	III. Senna
D. Cyanogenetic	IV. Ashwagandha
	V. Bitter Almond

Choose the correct answer from the options given below:

1. A-III, B-I, C-II, D-V
2. A-V, B-I. C-II, D-III
3. A-IV. B-II. C-I, D-III
4. A-II, B-III, C-IV, D-I

Que- 10. Quinine and quinidine differs in

1. Chemical nature

2. Molecular formula

3. Rotating the plane of polarized light

4. Precusors of biosynthesis

Pharmacology and Allied Subjects -

Que- 1. Trastuzumab is a/an

1. EGFR/HER2 inhibitor

2. Angiogenesis inhibitor

3. EGF receptor (HER 1) inhibitor

4. BCR-ABL tyrosine kinase inhibitor

Que- 2. When is a New Drug Application (NDA) made?

1. Once the animal studies are done and drug is declared safe in animals

2. Once the animal studies are done and drug is declared safe and effective in animal studies

3. After the phase III clinical trials

4. After the phase IV clinical trials

Que- 3. Identify the drug that is not among the drugs recommended as first time drug in the treatment of Partial seizers with or without generalization.

1. Carbamazepine

2. Valproate

3. Diazepam

4. Lamotrigine

Que- 4. Which of the following hyperlipidaemic drugs act via a GPCR?

1. Nicotinic acid
2. Fenofibrate
3. Atorvastatin
4. Ezetimibe

Que- 5. All the following are TNF-a Inhibitors except

1. Etanercept
2. Infliximab
3. Adalizumab
4. Basiliximab

Que- 6. Match the following cells of immune system List I with their functions List II.

LIST I Immune system	LIST II Functions
A. Mast cells	I. Master of Immune system
B. Lymphocytes	II. Allergic reactions
C. T-cells	III. Cell mediated immune reactions
D. Monocytes-Macrophages	IV. Antigen recognition, Phagocytosis

Choose the correct answer from the options given below:

1. A-I, B-II, C-III, D-IV
2. A-II, B-I, C-III, D-IV
3. A-III, B-I, C-II, D-IV
4. A-I, B-III, C-II, D-IV

Que- 7. Which of the following drug can produce mydriasis without cycloplegia?

1. Atropine
2. Tropicamide
3. Homatropine
4. Ephedrine

Que- 8. What do you mean by Orphan Drug?

1. A drug meant to be distributed among the orphans who can not afford the cost of the drug
2. A drug for a disease which is not having any other treatment options at all
3. A drug which is useful for rare disease
4. A drug that is available in abundance

Que- 9. Normal value of HbA1c falls in the range of:

1. 0.1% to 0.8%
2. 6.5% to 7.5%
3. 21.5% to 24.5%
4. 51.5% to 53.5%

Que- 10. A 70 kg woman was administered 1000 mg of the drug as i.v bolus. After its uniform distribution in the body, the plasma concentration of the drug was found to be 50 mg/L. What is its volume of distribution?

1. 70L
2. 500L

3. 20L

4. 0.1L

Que- 11. A hypertensive patient receiving a drug 'Y' for managing BP was prescribed a tricyclic antidepressant. As a result, there was an abolition of the antihypertensive action of 'Y'. Which of the following drug could be 'Y'?

1. Atenolol

2. Captopril

3. Clonidine

4. Diltiazem

Que- 12. Put the events of acute inflammation in proper sequence.

1. Accumulation of fluid and plasma at the affected site, intravascular activation of platelets, polymorphonuclear neutrophils, followed by healing

2. Polymorphonuclear neutrophils, accumulation of fluid and plasma at the affected site, intravascular activation of platelets, followed by healing

3. Accumulation of fluid and plasma at the affected site, polymorphonuclear neutrophils, intravascular activation of platelets, followed by healing

4. Intravascular activation of platelets, polymorphonuclear neutrophils, accumulation of fluid and plasma at the affected site, followed by healing

Que- 13. Which of the following is NOT an example of an mTOR inhibitor?

1. Everolimus

2. Tacrolimus

3. Temsirolimus
4. Sirolimus

Que- 14. Alzheimer's disease is mainly because of the neurodegeneration of the following part of the brain

1. Hypothalamus
2. Midbrain
3. Hippocampus
4. Cerebellum

Que- 15. Which of the following has been found to act as a male contraceptive without affecting libido and potency?

1. Cyproterone
2. Gossypol
3. Centchroman
4. Goserelin

Que- 16. Choose the most appropriate statement for the Peptic ulcer disease caused by NSAIDs.

1. H2 antagonists offer rapid healing of ulcer provided the NSAID is discontinued.
2. H2 antagonists offer rapid healing.
3. Proton Pump Inhibitor is to be given only if the NSAID is discontinued.
4. NSAIDs are strictly contraindicated with Proton Pump Inhibitors.

Que- 17. Lateral geniculate nucleus is associated with

1. Vision
2. Hearing
3. Olfaction
4. Gustation

Que- 18. Which of the following drug used in the chemotherapy of some types of leukemia, satisfies the statements -

Statement I : It is effective orally.

Statement II : It has near 100% oral bioavailability.

In light of the above statements, choose the correct answer from the options given below:

1. Asparaginase
2. Doxorubicin
3. Mitomycin
4. Hydroxyurea

Que- 19. Given below are two statements:

Statement I : In vasospastic angina, the imbalance occurs when the myocardinal oxygen requirement increases, as during exercise, and coronary blood flow does not increase proportionately.

Statement II : In Prinzmetal's angina, oxygen delivery decreases as a result of reversible coronary vasospasm. https://www.pyqonline.com

In light of the above statements, choose the most appropriate answer from the options given below:

1. Both Statement I and Statement II are correct
2. Both Statement I and Statement II are incorrect

3. Statement I is correct but Statement II is incorrect
4. Statement I is incorrect but Statement II is correct

Que- 20. In ECG, the P wave corresponds to the following event

1. Atrial depolarisation
2. Ventricular depolarisation
3. Atrial repolarisation
4. Ventricular repolarisation

Que- 21. Which of the following is a tetracyclic antidepressant that has additional dopamine D2 receptor blocking and neuroleptic properties, as well as a greater tendency to cause seizures in overdose?

1. Dothiepin
2. Doxepin
3. Trazodone
4. Amoxapine

Dropped

Que- 22. Which of the following cranial nerve helps in accommodating the eye for near vision?

1. Oculomotor
2. Optic
3. Trochlear
4. Facial

Que- 23. Which of the following is true for bone tissue cell differentiation and maturation?

1. Osteogenic → Osteoblasts → Osteocytes
2. Osteogenic → Osteoblasts → Osteoclasts

3. Osteocytes → Osteogenic → Osteoblasts
4. Osteoclasts → Osteoblasts → Osteocytes

Que- 24. A drug 'X' is more selective for the al subunit of BZD receptors. It lacks effect on slow-wave sleep, minimum residual daytime sedation, no rebound insomnia on discontinuation, low abuse potential. Which of the following can be 'X'? https://www.pyqonline.com

1. Flurazepam
2. Flumazenil
3. Melatonin
4. Zolpidem

Que- 25. Which of the following is a fourth-generation cephalosporin?

1. Ceftriaxone
2. Cefaclor
3. Cefuroxime
4. Cefepime

Que- 26. Which of the following metabolite is used to inactivate the vasicotoxic metabolites leading to hemorrhagic cystitis by alkylating agents used in the treatment of cancer?

1. Acroline
2. Aldophosphamide
3. Cyclophosphamide
4. Mesna

Que- 27. All the following are true with Metoclopramide except:

1. 5-HT_1 receptor antagonist

2. D_2 receptor antagonist

3. 5-HT_3 receptor antagonist

4. 5-HT_4 receptor agonist

Que- 28. Given below are two statements.

Statement I : Levodopa is metabolized peripherally but capable of crossing Blood Brain Barrier, thus a best drug in treating Parkinsonism.

Statement II : Carbidopa crosses Blood Brain Barrier, thus a best combination for protecting levodopa in CNS.

In light of the above statements, choose the correct answer from the options given below:

1. Both Statement I and Statement II are true

2. Both Statement I and Statement II are false

3. Statement I is true but Statement II is false

4. Statement I is false but Statement II is true

Other Subjects -

Que- 1. Match List I with List II

LIST I Fermentation Products	LIST II Strain used
A. Dextran	I. Clostridium tetani
B. Bacterial amylase	II. Brevibacterium sp.
C. Glutamic acid	III. Leuconostoc mesenteroides
D. Vitamin B12	IV. Bacillus subtilis
	V. Streptomyces olivaceus

Choose the correct answer from the options given below:

1. A-V, B-I, C-IV, D-III
2. A-I. B-IV, C-II, D-III
3. A-II. B-III, C-V, D-IV
4. A-III, B-IV, C-II, D-V

Que- 2. The formula to calculate liquid pressure is

1. P = mgh
2. P = wgh
3. P = pgh
4. P = Fgh

Que- 3. Drugs covered under this schedule are not permitted for repacking license. Identify the correct schedule.

1. Schedule H
2. Schedule G
3. Schedule O
4. Schedule C and C_1

Que- 4. Requirements of factory premises for the manufacture of cosmetics are mentioned, in the Drugs and Cosmetics Rules, 1945 under

1. Schedule M
2. Schedule M-1
3. Schedule M-2
4. Schedule M-3

Que- 5 Match List I with List II

LIST I Schedule	LIST II Covers the
A. Schedule Y	I. Shelf life of drugs
B. Schedule FF	II. Requirements for clinical trials
C. Schedule O	III. Disinfectant liquids
D. Schedule P	IV. Ophthalmic ointments

Choose the correct answer from the options given below:

1. A-I, B-II, C-III, D-IV
2. A-II, B-III, C-IV, D-I
3. A-IV, B-III, C-II, D-I
4. A-II, B-IV, C-III, D-I

Que- 6. Which of the following represents a complete list of products that are offered by a company for Sale?

1. Product Variety
2. Product Mix
3. Product Item
4. Product Line

Que- 7. Shift from 'try my product' to 'prefer my brand' marketing strategy is done at what stage of product life cycle?

1. Introduction
2. Growth
3. Maturity
4. Decline

Que- 8. Haemophilus influenzae type B (Hib) vaccine is an example of

1. Subunit vaccine
2. Toxoid vaccine
3. Recombinant protein vaccine
4. Conjugate vaccine

Que- 9. The most efficient heat exchange between the particles and flowing air occurs in the _____

1. Tray dryer
2. Vaccum Dryer
3. Fluidized bed dryer
4. Rotary dryer

Que- 10. The drug price control order (DPCO) is an order issued by the Government under the _____ which enables it to fix the prices of some essential bulk and their formulations

1. Essential Commodities Act
2. Essential Commodities Amendment
3. Essential Commodities Accessories
4. Ethical Commodities Act

Que- 11. According to IP and BP very fine powder is one in which.....

1. All particles pass through 120# sieve
2. 90% particles pass through 350# sieve
3. All particles pass through 350# sieve
4. 90% particles are of size < 10um

Answer Key

Pharma Chem and Allied Subjects	Pharmaceutics and Allied Subjects	Pharmacognosy and Allied Subjects	Pharmacology and Allied Subjects	Other Subjects
1. (2)	1. (3)	1. (4)	1. (1)	1. (4)
2. (4)	2. (4)	2. (2)	2. (3)	2. (3)
3. (3)	3. (1)	3. (2)	3. (3)	3. (4)
4. (2)	4. (1)	4. (3)	4. (1)	4. (3)
5. (2)	5. (4)	5. (1)	5. (4)	5. (4)
6. (1)	6. (3)	6. (2)	6. (2)	6. (4)
7. (3)	7. (1)	7. (3)	7. (4)	7. (2)
8. (1)	8. (4)	8. (4)	8. (3)	8. (4)
9. (1)	9. (3)	9. (1)	9. (2)	9. (3)
10. (1)	10. (3)	10. (3)	10. (3)	10. (1)
11. (3)	11. (2)		11. (3)	11. (1)
12. (1)	12. (3)		12. (1)	
13. (1)	13. (4)		13. (2)	
14. (2)	14. (1)		14. (3)	
15. (4)	15. (2)		15. (2)	
16. (1)	16. (1)		16. (2)	
17. (4)	17. (3)		17. (1)	
18. (1)	18. (2)		18. (4)	
19. (1)	19. (4)		19. (2)	
20. (3)	20. (2)		20. (1)	
21. (2)	21. (4)		21. ( )	
22. (2)	22. (1)		22. (1)	
23. (2)	23. (1)		23. (1)	
24. (2)	24. (1)		24. (4)	
25. (4)	25. (2)		25. (4)	
26. (2)	26. (4)		26. (4)	
27. (1)	27. (2)		27. (1)	
28. (1)	28. (3)		28. (3)	
29. (2)	29. (4)			
30. (2)	30. (3)			
31. (2)	31. (4)			
32. (3)	32. (2)			
33. (2)	33. (3)			
34. (1)	34. (2)			
35. (3)	35. (3)			
36. (3)	36. (3)			
37. (1)	37. (2)			
38. (1)	38. (2)			