

National Testing Agency

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GPAT2020

Group Number : 1
Group Id : 40503636
Group Maximum Duration : 0
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Show Attended Group? : No
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Other Subjects

Section Id : 405036119
Section Number : 1
Section type : Online
Mandatory or Optional: Mandatory
Number of Questions: 11
Number of Questions to be attempted: 11
Section Marks: 44

Sub-Section Number: 1
Sub-Section Id: 405036203
Question Shuffling Allowed : Yes

Question Number : 1 Question Id : 4050363035 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

Following statement is more accurate with respect to limitations of Arrhenius relationship for stability prediction :

Options :

- Less relative humidity and oxygen solubility at higher temperature

- Same degradation mechanisms may predominate at different temperatures
- Equal moisture concentrations will be mentioned at different temperatures
- Order of degradation will alter at higher temperature

Question Number : 2 Question Id : 4050363036 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Type II glass containers are :

Options :

- Most inert glasses and shows high hydrolytic resistance
- Suitable for most acidic and neutral aqueous preparations
- Suitable for alkaline solutions
- Suitable for non-aqueous preparations

Question Number : 3 Question Id : 4050363037 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Lakes of Dyes available commercially contain maximum upto _____ of pure dye.

Options :

- 25%
- 15%
- 50%

- 10%

Question Number : 4 Question Id : 4050363038 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

An excipient Ludipress used for liquid Dosage form is a coprocessed excipient of :

Options :

- Lactose monohydrate + Kollidon 30 + Kollidon CL
- Lactose monohydrate + Kollidon 30
- Dextrose monohydrate + Kollidon 30 + Kollidon CL
- Dextrose monohydrate + Kollidon 30

Question Number : 5 Question Id : 4050363039 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

As per European Pharmacopoeia technical guide, substance stored at 25°C for 24 hours at 80% RH, called very hygroscopic when increase in weight is :

Options :

- $\geq 0.2\% \text{ w/w}$ and $< 15\% \text{ w/w}$
- $\geq 0.2\% \text{ w/w}$ and $< 20\% \text{ w/w}$
- $\geq 0.2\% \text{ w/w}$ and $< 2\% \text{ w/w}$
- $\geq 15\% \text{ w/w}$

Question Number : 6 Question Id : 4050363040 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

- Horse
- Sheep
- Cat
- Camel

Question Number : 7 Question Id : 4050363041 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

In capsule making the Bloom strength of gelatin is proportional to molecular weight of the gelatin and is a measure of the;

Options :

- Adhesive strength of gelatin with other polymer
- Adhesive strength of gelatin with dipping pins
- Cohesive strength of the crosslinking that occurs between gelatin molecules
- Cohesive strength of the solvent molecules

Question Number : 8 Question Id : 4050363042 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

SCHICK Test Toxin is a sterile Filterate from a culture of :

Options :

- *Mycobacterium Diphtheriae*
- *Actinobacillus mallei*

• *Coryne bacterium Diphtheriae*

• *Rickettsia prowazeki*

Question Number : 9 Question Id : 4050363043 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Relative sweetness of sucrose, to saccharin :

Options :

• 1 : 100

• 1 : 200

• 1 : 500

• 1 : 400

Question Number : 10 Question Id : 4050363044 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Pyrogens present in containers can be destroyed by heating the containers at :

Options :

• 121°C for 15 mins

• 121°C for 30 mins

• 210°C for 1 h

• 210°C for 4 h

Dimethyl sulfoxide acts as penetration enhancer for topical formulations by :

Options :

- Denaturing proteins
- Altering solvent nature of membrane
- Increasing solubility
- Increasing transepidermal loss

Pharmaceutical Chemistry

Section Id :	405036120
Section Number :	2
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	38
Number of Questions to be attempted:	38
Section Marks:	152

Sub-Section Number:	1
Sub-Section Id:	405036204
Question Shuffling Allowed :	Yes

Question Number : 12 Question Id : 4050363046 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

The dispersion of coarse material by shearing in a narrow gap between a static cone and a rapidly rotating cone is caused by :

Options :

- Peptisation
- Ultrasonic Irradiation

- Electrical Dispersion

- Colloid Mills

Question Number : 13 Question Id : 4050363047 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

In the process of Extraction, ethanol is used as a solvent for :

Options :

- Gums

- Alkaloids

- Waxes

- Sucrose

Question Number : 14 Question Id : 4050363048 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

Which of the following is not a fundamental (primary) factor considered for selection of a location for the construction of pharmaceutical or chemical plant ?

Options :

- Raw materials

- Market for products

- Labor supply

- Soil

Correct Marks : 4 Wrong Marks : 1

The version of GMP in India that describe requirement of factory premises for manufacture of cosmetics :

Options :

- Schedule M-I
- Schedule-M-II
- Schedule-M-III
- Schedule-M

Question Number : 16 Question Id : 4050363050 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

While studying solid state physicochemical properties, the packing property of drug include :

Options :

- Solubility
- Entropy
- Heat capacity
- Refractive index

Question Number : 17 Question Id : 4050363051 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Drug products that contain the same therapeutic moiety but as different salts, esters or complexes are called as :

Options :

- Therapeutic alternatives

- Therapeutic equivalents
- Pharmaceutical alternative
- Pharmaceutical equivalents

Question Number : 18 Question Id : 4050363052 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The drug concentration between Minimum effective concentration (MEC) and maximum safe concentration (MSC) is called :

Options :

- Therapeutic index
- Therapeutic range
- Toxic range
- Therapeutic ratio

Question Number : 19 Question Id : 4050363053 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The complexation of Quinine with hexyl salicylate is an example of absorption by :

Options :

- Facilitated transport
- Convective transport
- Ion pair transport

- Penocytosis

Question Number : 20 Question Id : 4050363054 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Fraction of administered dose (which may be -n form of an ester of salt) of active drug is termed as :

Options :

- Intrinsic factor
- Formulation factor
- Salt factor
- Activity factor

Question Number : 21 Question Id : 4050363055 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Which of the following will result in very closest value to the Glomerular Filtration Rate (GFR) ?

Options :

- Creatinine Clearance
- Insulin Clearance
- Albumin Clearance
- Measure of Blood Urea Nitrogen (BUN)

Question Number : 22 Question Id : 4050363056 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Options :

- Nuclear magnetic resonance
- UV-visible spectrophotometry
- Mass spectrophotometry
- Flourimetry

Question Number : 23 Question Id : 4050363057 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Human Serum Albumin has a molecular weight of :

Options :

- 34,000
- 59,000
- 44,000
- 65,000

Question Number : 24 Question Id : 4050363058 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The unequal attractive forces acting on the molecules at the surface of liquid gas interface when compared with molecular forces in the bulk of the liquid is due to :

Options :

- Less adhesive force of attraction
- Less cohesive force of attraction

- Absence of adhesive force of attraction
- Absence of cohesive force of attraction

Question Number : 25 Question Id : 4050363059 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The temperature dependence and the theory of viscosity is expressed by the following :

Options :

- Arrhenius equation of chemical kinetics
- Gibb's equation
- Stern-Volmer equation
- Higuchi equation

Question Number : 26 Question Id : 4050363060 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

When a solid forms a gel more readily when gently shaken or otherwise sheared than when allowed to form the gel while the material is kept at rest, the phenomenon is known as :

Options :

- Thixotropy
- Antithixotropy
- Rheopexy
- Negative rheopexy

Question Number : 27 Question Id : 4050363061 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

When the concentration of an aqueous sodium chloride solution has the same colligative properties as the solution in question, the value so obtained is known as :

Options :

- Isotonicity value
- Molarity
- Molality
- Normality

Question Number : 28 Question Id : 4050363062 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The polymorphs exhibit the following different properties Except :

Options :

- Melting points
- X-ray crystal and diffraction patterns
- Solubilities
- Chemical structures

Question Number : 29 Question Id : 4050363063 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Centistoke is the CGS unit for the following property :

Options :

- Surface tension

- Fluidity
- Kinematic viscosity
- Coefficient of viscosity

Question Number : 30 Question Id : 4050363064 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Which of the following powder shows the greatest degree of dustibility ?

Options :

- Fine charcoal
- Potato Starch
- Talcum powder
- Lycopodium powder

Question Number : 31 Question Id : 4050363065 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The 'Crenulation' effect on the cell wall is caused by _____ solutions and this effect is _____.

Options :

- Hypertonic; reversible
- Hypertonic; irreversible
- Hypotonic; reversible

- Hypotonic; irreversible

Question Number : 32 Question Id : 4050363066 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

When six suppositories containing 20 percent of morphine hydrochloride in Theobroma oil are to be prepared, which of the following statement is correct ?

(Given : Displacement value of morphine hydrochloride is 1.5; weight of each suppository is 1g)

Options :

- The displacement value of morphine hydrochloride is to be considered
- The displacement value of morphine hydrochloride is to be ignored
- The displacement value of Theobroma oil is to be considered
- The displacement values of both morphine hydrochloride and Theobroma oil are to be considered

Question Number : 33 Question Id : 4050363067 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Increasing the proportion of the disperse phase of an emulsion by more than 60% may lead to :

Options :

- Cracking
- Phase inversion
- Creaming
- Frothing

Question Number : 34 Question Id : 4050363068 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Burow's solution is :

Options :

- Aluminium acetate solution strong
- Ammonium acetate solution strong
- Calcium hydroxide solution strong
- Calcium phosphate solution strong

Question Number : 35 Question Id : 4050363069 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The Acidic polymers of Ribitol/Glycerol phosphate present in Gram positive microorganism are known as :

Options :

- Teichoic acids
- Polysaccharides
- Lysozymes
- Peptidoglycans

Question Number : 36 Question Id : 4050363070 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Production of Acetyl methyl carbinol can be detected by which of the following test ?

Options :

- Citrate utilization test

- Voges-proskaver test
- Methyl red test
- Indole test

Question Number : 37 Question Id : 4050363071 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

This fungus is also known as opportunistic pathogen, often isolated from warm-blooded animals.

Options :

- *Penicillium notatum*
- *Penicillium chrysogenum*
- *Aspergillus niger*
- *Candida albicans*

Question Number : 38 Question Id : 4050363072 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

The following gram positive bacteria species is positive for the coagulase test (a test for the ability of bacteria to cause blood plasma to clot).

Options :

- *S. aureus*
- *S. epidermidis*
- *S. saprophyticus*

- S. lactis

Question Number : 39 Question Id : 4050363073 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

According to distribution law, select the appropriate expression for the concentration of a solute when it exist as monomer in solvent A and dimer in solvent B

(Assume C_A = concentration of solute in solvent A

C_B = concentration of solute in solvent B

α = degree of dissociation)

Options :

- $K = \frac{C_A}{2 \times \sqrt{C_B}}$

- $K = \frac{C_A}{\sqrt{C_B}}$

- $K = \frac{C_A}{C_B (1 - \alpha)}$

- $K = \frac{C_A}{C_B (2 - \alpha)}$

Question Number : 40 Question Id : 4050363074 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Choose the wrong statement from the following with regard to Amorphous solids :

Options :

- They tend to flow when subjected to sufficient pressure

- They do not have definite melting point

- Usually they are anisotropic

- Considered as super cooled fluids

Question Number : 41 Question Id : 4050363075 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The second law of thermodynamics states that 'whenever a spontaneous process takes place, it is accompanied by an increase in the total energy of the universe.' The equation that satisfies the above law is :

Options :

- $\Delta S_{\text{universe}} = S_{\text{system}} - \Delta S_{\text{surrounding}}$

- $\Delta S_{\text{universe}} = S_{\text{surrounding}} - \Delta S_{\text{system}}$

- $S_{\text{system}} = \Delta S_{\text{universe}} + \Delta S_{\text{surrounding}}$

- $\Delta S_{\text{universe}} = S_{\text{system}} + \Delta S_{\text{surrounding}}$

Question Number : 42 Question Id : 4050363076 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

When adhesive attractions between molecules of different species exceeds cohesive attraction between like molecules, the deviation according to Rault's law is said to be :

Options :

- Partial

- Negative

- Positive

- Neutral

Molar heat capacity of a system is defined as :

Options :

- The amount of heat required to raise temperature of one mole of the system by one Kelvin
- The amount of heat required to decrease temperature of one mole of the system by one Kelvin
- The amount of heat required to raise temperature of one mole of the system by one Fahrenheit
- The amount of heat required to decrease temperature of one mole of the system by one Fahrenheit

Question Number : 44 Question Id : 4050363078 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Which of the following is the example of "Invert Sugar" ?

Options :

- Lactose
- Sucrose
- Lactulose
- Sucralose

Question Number : 45 Question Id : 4050363079 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Following amino acid does not exhibit optical isomerism :

Options :

- Alanine

- Leucine
- Serine
- Glycine

Question Number : 46 Question Id : 4050363080 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Riboflavin, chemically is :

Options :

- 6,7-dimethyl isoalloxazine
- 8,9-dimethyl isoalloxazine
- 6,7-diethyl isoalloxazine
- 8,9-diethyl isoalloxazine

Question Number : 47 Question Id : 4050363081 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

If two monosaccharides differ in their structure around a single carbon atom, they are called as

_____.

Options :

- Dimers
- Epimers
- Trimers

• Trioses

Question Number : 48 Question Id : 4050363082 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Following is the important sterol in faeces formed from cholesterol by bacteria in lower intestine :

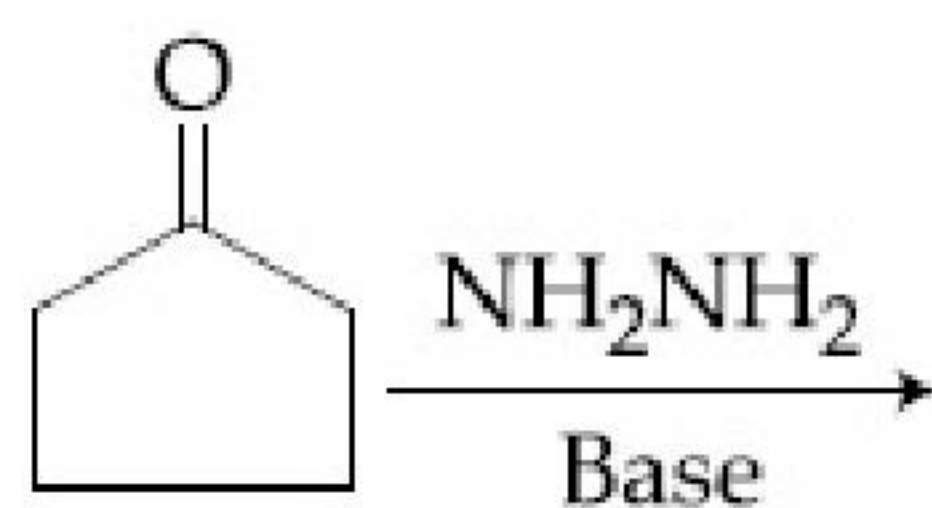
Options :

- 7-Dehydrocholesterol
- 7- α -Hydroxy cholesterol
- Coprostanol
- Lithocholic acid

Question Number : 49 Question Id : 4050363083 Question Type : MCQ Option Shuffling : Yes

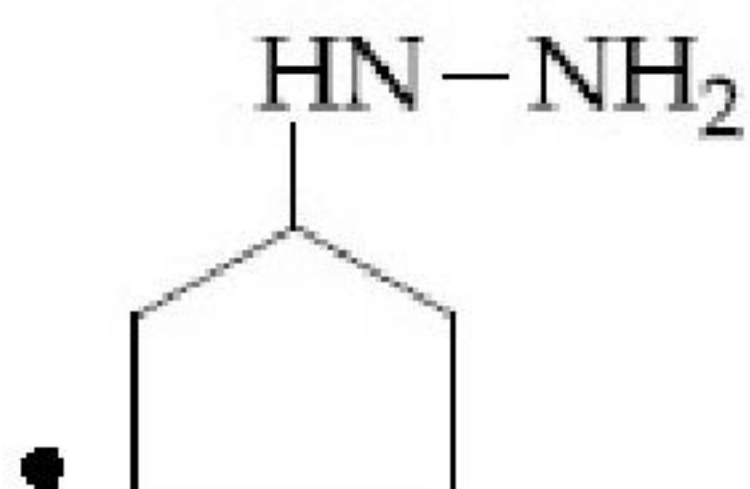
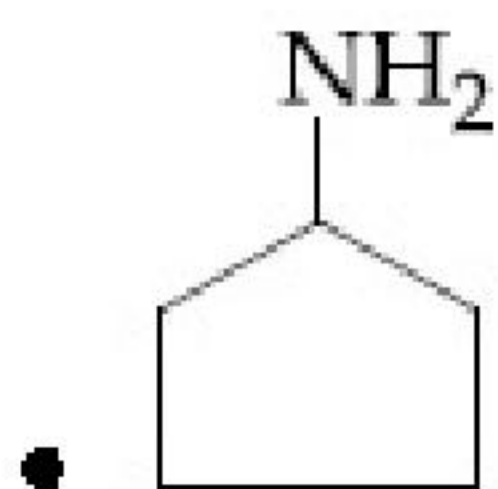
Correct Marks : 4 Wrong Marks : 1

Product of the following reaction :



Options :

-
-



Pharmaceutics

Section Id :	405036121
Section Number :	3
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	38
Number of Questions to be attempted:	38
Section Marks:	152

Sub-Section Number:	1
Sub-Section Id:	405036205
Question Shuffling Allowed :	Yes

Question Number : 50 Question Id : 4050363084 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

An aldopentose can be converted into aldohexose by :

Options :

- Kiliani-Fischer synthesis
- Wohl's method
- Ruff's degradation method
- Hoffmann degradation method

Correct Marks : 4 Wrong Marks : 1

Electron releasing groups stabilizes free radicals by :

Options :

- Positive mesomeric (+m) effect
- Negative mesomeric (–m) effect
- Positive inductive (+I) effect
- Negative inductive (–I) effect

Question Number : 52 Question Id : 4050363086 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Propanone and 2-hydroxy propene are ;

Options :

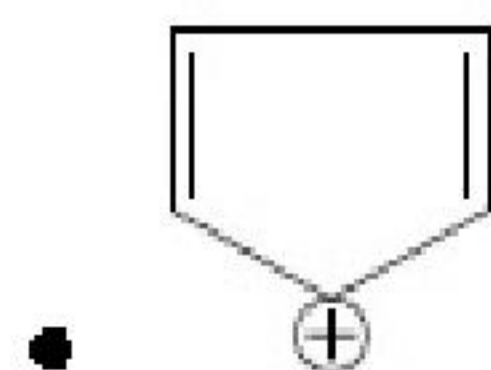
- Chain Isomers
- Rotamers
- Tautomers
- Position isomers

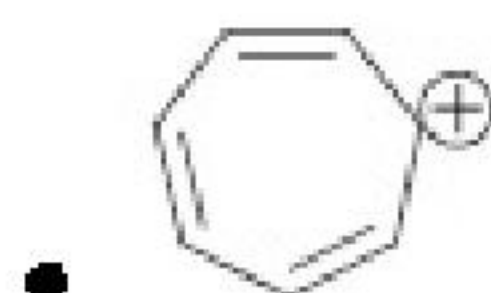
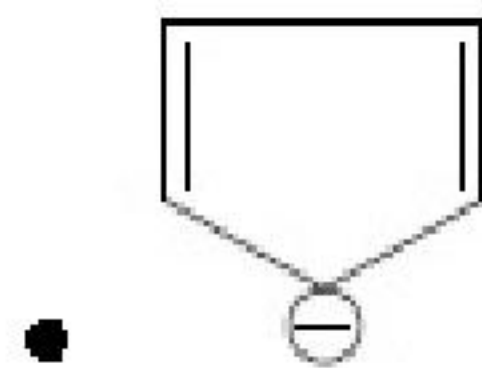
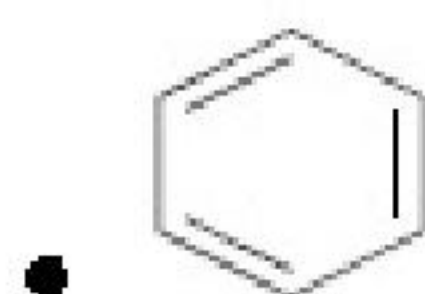
Question Number : 53 Question Id : 4050363087 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Which of the following is Anti aromatic ?

Options :





Question Number : 54 Question Id : 4050363088 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Walden inversion or complete reversal of stereochemistry occurs in one of the following substitution reaction :

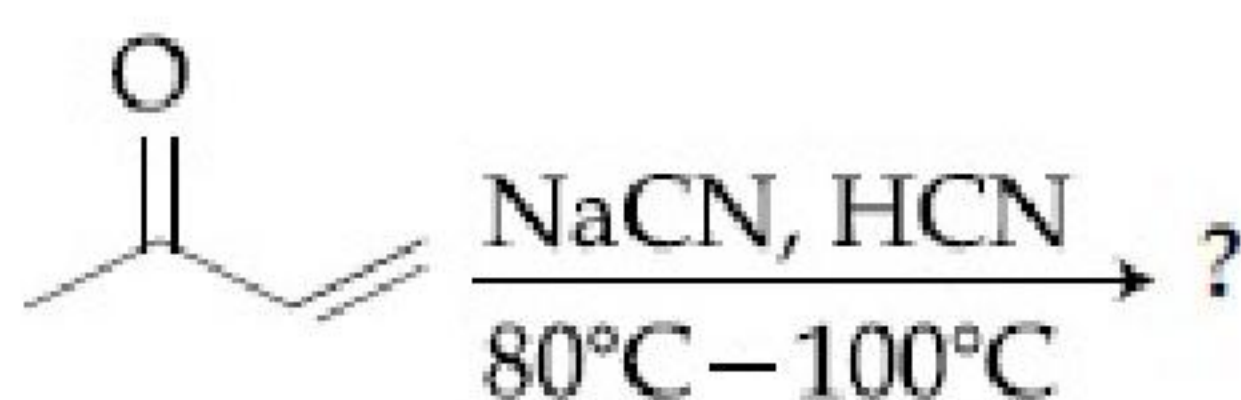
Options :

- SN_2 reactions
- SN_1 reactions
- SN_{Ar} reactions
- SN_i reaction

Question Number : 55 Question Id : 4050363089 Question Type : MCQ Option Shuffling : Yes

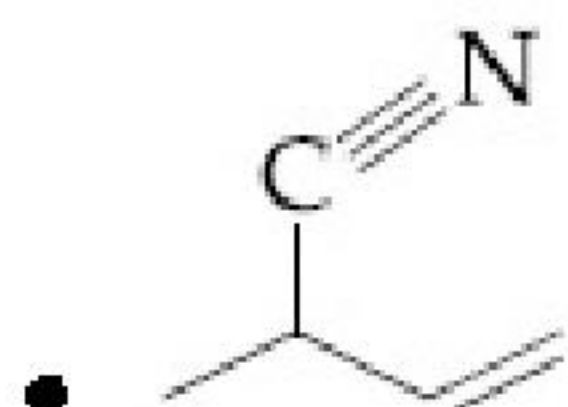
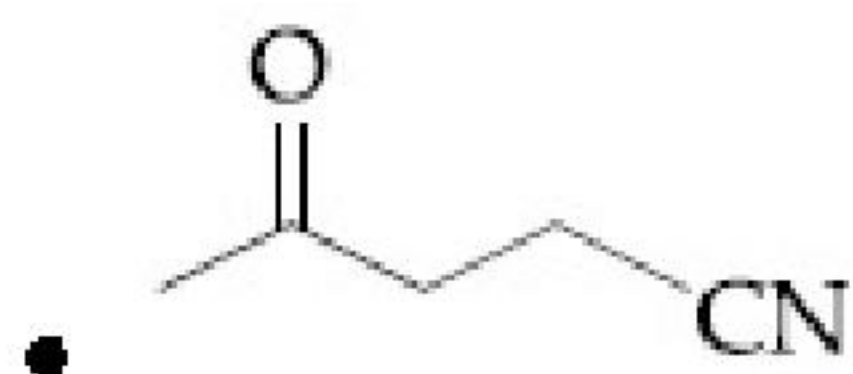
Correct Marks : 4 Wrong Marks : 1

What is the product of the following reaction ?



Options :





Question Number : 56 Question Id : 4050363090 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Which of the following rearrangement involves migration of a group from carbon to electron deficient nitrogen ?

Options :

- Baeyer villiger, rearrangement
- Pinacol-pinacolone rearrangement
- Beckmann rearrangement
- Wittig rearrangement

Question Number : 57 Question Id : 4050363091 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The condensation of an active methylene compound with formaldehyde and an amine to form β -amino carbonyl compound is known as :

Options :

- Beckmann rearrangement

- Stobbe condensation
- Mannich reaction
- Knoevenagel condensation

Question Number : 58 Question Id : 4050363092 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

The Nitration of quinoline gives a mixture of _____.

Options :

- 2-nitro-and 4-nitroquinolines
- 5-nitro-and 8-nitroquinolines
- 3-nitro-and 6-nitroquinolines
- 2-nitro-and 7-nitroquinolines

Question Number : 59 Question Id : 4050363093 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

Which of the following groups stabilizes carbocation in electrophilic aromatic substitution ?

Options :

- $-\text{N}(\text{CH}_3)_3^+$, $-\text{NO}_2$
- $-\text{CN}$, $-\text{SO}_3\text{H}$
- $-\text{COOH}$, $-\text{CHO}$

- $-\text{NH}_2$, $-\text{OH}$

Question Number : 60 Question Id : 4050363094 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The specific reagents used in skraup synthesis of quinoline are :

Options :

- Glycerol, aniline, sulfuric acid and Nitrobenzene
- Benzaldehyde, aniline, sulfuric acid and Nitrobenzene
- Benzaldehyde, Acetal of aminoethanal and Nitrobenzene
- Glycerol, Acetal of aminoethanal and Nitrobenzene

Question Number : 61 Question Id : 4050363095 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The heterocyclic nucleus present in nitrofurantoin are :

Options :

- 2-nitro furan and imidazole 2,4-dione
- 3-nitro furan and imidazole 2,4-dione
- 2-nitro furan and imidazoline-2-one
- Furan and pyrrole

Question Number : 62 Question Id : 4050363096 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Antifungal agent 5-fluorocytosine is converted to its active metabolite 5-fluoro

- Cytosine reductase
- Cytosine deaminase
- Cytosine demethylase
- Cytosine deacetylase

Question Number : 63 Question Id : 4050363097 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

Which one is NOT an opioid receptor ?

Options :

- Mu
- Kappa
- Delta
- Gamma

Question Number : 64 Question Id : 4050363098 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

The mechanism by which fluorides inhibit dental caries is :

Options :

- Decreased acid solubility of enamel
- By increasing the sensitivity of tooth enamel
- By increasing susceptibility to acid

- Increased acid solubility of enamel

Question Number : 65 Question Id : 4050363099 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

This 4-amino quinoline antimalarial drug marketed as R, S isomer, has two trifluoromethyl moieties at position 2' and 8' and no electronegative substituent either at 6' or 7' positions is :

Options :

- Chloroquine
- Mefloquine
- Amodiaquine
- Primaquine

Question Number : 66 Question Id : 4050363100 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Mitomycin C is an antibiotic isolated from :

Options :

- *Streptomyces peucetius*
- *Streptomyces caespitosus*
- *Streptomyces verticillus*
- *Streptomyces antibioticus*

Question Number : 67 Question Id : 4050363101 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The weakly acidic nature of warfarin is attributed to the presence of :

- Methylene protons on substitution at 3rd position
- Aromatic protons of coumarin ring
- Proton of hydroxyl group at 4th position
- Proton on chiral carbon

Question Number : 68 Question Id : 4050363102 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

One of the following statement with respect to carbachol is **NOT** correct Identify :

Options :

- The amino group decreases electrophilicity of the carbonyl group
- It possess both muscarinic and nicotinic action
- It can be administered orally
- It is more susceptible to hydrolysis as compared to acetylcholine

Question Number : 69 Question Id : 4050363103 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Closeness of a measured value to the true or accepted value is known as _____.

Options :

- Precision
- Accuracy

- Deviation

- Bias

Question Number : 70 Question Id : 4050363104 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The principle of liquid-liquid extraction is _____.

Options :

- Partition

- Solubility

- Adsorption

- Separation

Question Number : 71 Question Id : 4050363105 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The principle of gas-liquid chromatography is _____.

Options :

- Affinity chromatography

- Partition chromatography

- Adsorption chromatography

- Ion exchange chromatography

Hydrated proton is called _____.

Options :

- Water proton
- Proton pump
- Hydronium ion
- Roxonium ion

Question Number : 73 Question Id : 4050363107 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The solvent used in NMR spectroscopy with the highest level of deuteration among these is :

Options :

- Deuteriochloroform
- Deuteriomethanol
- Deuterioacetone
- Deuterium oxide

Question Number : 74 Question Id : 4050363108 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Globar source in infra red spectrophotometer is _____.

Options :

- Nichrome wire
- Silicon carbide rod

- Rhodium wire heated in ceramic
- Tungsten filament

Question Number : 75 Question Id : 4050363109 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

When an electron with charge 1.60×10^{-19} coulombs is moved through a potential difference of 1 volt, the energy expended or released is called as _____.

Options :

- 1 joule
- 1 coulomb
- 1 e volt
- 1 erg

Question Number : 76 Question Id : 4050363110 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

What is the approximate chemical shift ranges for protons attached to aldehydic groups ?

Options :

- 9.5 - 10.0 δ
- 4 - 8 δ
- 6 - 7.9 δ
- 1.5 - 3.5 δ

Two pore domain K^+ ions channels are opened by which one of the following categories of anaesthetics ?

Options :

- Barbiturates
- Halogenated inhalation anaesthetic
- Opioid analgesics
- Benzodiazepines

Question Number : 78 Question Id : 4050363112 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Which three of the following are physiological effects of ganglionic stimulating agents ?

- (A) Stimulation of sympathetic ganglia and the adrenal medulla leading to cardiovascular responses
- (B) Initial transient stimulation and then a more persistent depression of all autonomic ganglia
- (C) Marked depression of CNS leading to analgesia.
- (D) Chronic exposure causes a marked increase in the density of nicotinic receptors contributing tolerance and dependence.
- (E) Combined activation of parasympathetic ganglia and cholinergic nerve ending by nicotine results in increased tone and motor activity of the bowel.
- (F) Inhibition of salivary and bronchial secretions that is followed by stimulation.

Options :

- (A); (C) and (D)
- (B); (D) and (F)
- (B); (C) and (E)
- (A); (B) and (D)

Question Number : 79 Question Id : 4050363113 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Ion trapping is an important process in drug distribution with potential therapeutic benefit. It is defined as :

Options :

- An acidic drug will accumulate on the more basic side of the membrane and a basic drug on more acidic side.

- An acidic drug will accumulate on the more acidic side of the membrane and a basic drug on more basic side.

- An acidic drug will accumulate on the more acidic side of the membrane and a basic drug on more acidic side.

- An acidic drug will accumulate on the more basic side of the membrane and a basic drug on more basic side.

Question Number : 80 Question Id : 4050363114 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Which of the following is not one of the triade effects of adrenaline leading to rise in blood pressure ?

Options :

- Stimulation of presynaptic alpha-2 adrenoreceptor leading to increase sympathetic tone

- An increased heart rate (positive chronotropic action)

- A direct myocardial stimulation that increases the strength of ventricular contraction

- Vasoconstriction in many vascular bed specially in precapillary resistance vessels of skin

Identify the diuretic which causes hyperuricaemia, tend to raise serum calcium and also causes magnesium depletion ?

Options :

- Mannitol
- Chlorthiazide
- Acetazolamide
- Furosemide

Question Number : 82 Question Id : 4050363116 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Cotrimoxazole is combination of trimethoprim with sulfamethoxazole. Which of the following statement is correct about cotrimoxazole ?

Options :

- Most effective ratio of trimethoprim : sulfamethoxazole in plasma is 20 : 1.

Trimethoprim : sulfamethoxazole are administered in a dose ratio of 5 : 1 to achieve

- optimal synergistic effect.
- Cotrimoxazole is contraindicated during pregnancy.
- Cotrimoxazole is ineffective in treating respiratory tract infections.

Question Number : 83 Question Id : 4050363117 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Which of the following drugs possesses Antiplatelet effects ?

Options :

- Urokinase

- Clopidogrel
- Desmopressin
- Erythropoietin

Question Number : 84 Question Id : 4050363118 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

Which one of the following is not the property of osmotic diuretics ?

Options :

- Freely filtered at the glomerulus
- Undergo limited reabsorption by the renal tubule
- Are relatively inert pharmacologically
- They inhibit carbonic anhydrase

Question Number : 85 Question Id : 4050363119 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

The mechanism of antiepileptic effect of Lamotrigine is by :

Options :

- Blockade of NMDA receptors
- Inhibition of glutamate release
- Inhibition of Na⁺ channels

- Inhibition of Ca^{++} channels

Question Number : 86 Question Id : 4050363120 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

d-tubercurarin produces skeletal muscle relaxation by inhibiting :

Options :

- Ganglionic nicotinic receptors
- Muscurinic receptors
- α -adrenergic receptors
- Nicotinic receptors in neuromuscular junction

Question Number : 87 Question Id : 4050363121 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Meloxicam belongs to which class of Nonsteroidal Anti-inflammatory Drugs (NSAIDs) ?

Options :

- Selective cox-1 inhibitor
- Preferential cox-2 inhibitor
- Selective cox-2 inhibitor
- Preferential cox-1 inhibitor

Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	10
Number of Questions to be attempted:	10
Section Marks:	40

Sub-Section Number:	1
Sub-Section Id:	405036206
Question Shuffling Allowed :	Yes

Question Number : 88 Question Id : 4050363122 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

Following pairs represent antibiotic and its source. Identify the correct pair :

Options :

- Griseofulvin : Bacteria
- Colistin : Fungi
- Polyenes : Fungi
- Macrolides : Actinomycetes

Question Number : 89 Question Id : 4050363123 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

Which one of the following statement is true for cancer cells ?

Options :

- Cancer cells produce oncoproteins in the absence of growth factors or external stimuli
- Cancer cells require stimulation by growth factors
- Oncoproteins produced by cancer cells act on neighboring cells
- Cancer cells are highly sensitive to growth inhibitory signals

Question Number : 90 Question Id : 4050363124 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Which one of the following is a organ specific (localised) autoimmune disease ?

Options :

- Rheumatoid arthritis
- Grave's disease
- Scleroderma
- Polyarteritis nodosa

Question Number : 91 Question Id : 4050363125 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

One of the following is not a chemical or histochemical change that occurs in infarction of heart :

Options :

- Glycogen depletion
- Increase in lactic acid
- Decrease in sodium
- Influx of calcium

Question Number : 92 Question Id : 4050363126 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Which one of the following is not the biochemical marker of all death ?

Options :

- Creatine kinase

- Lipase
- Amylase
- Phospholipase

Question Number : 93 Question Id : 4050363127 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

In the transplant rejection the clinical features of graft-versus-host reaction includes following-
Except :

Options :

- Fever, weight loss
- Rheumatoid arthritis
- Intestinal malabsorption
- Dermatitis, diarrhoea

Question Number : 94 Question Id : 4050363128 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

In one of the following situations metabolic acidosis does not occur :

Options :

- Production of less amount of lactic acid
- Uncontrolled diabetes mellitus
- Chronic renal failure

- Therapeutic administration of acetazolamide

Question Number : 95 Question Id : 4050363129 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Rosacea is a skin condition that affect :

Options :

- Teenage people
- Adults between the age of 30 - 60
- Oldage people
- Only woman

Question Number : 96 Question Id : 4050363130 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Which of the following Neurotransmitter is formed on demand and act immediately ?

Options :

- Nitric oxide (NO)
- Adrenaline
- Histamine
- Acetylcholine

Question Number : 97 Question Id : 4050363131 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

A typical long bone consists of following parts except :

- The diaphysis
- The epiphyses
- The periosteum
- The trabeculae

Pharmacology

Section Id :	405036123
Section Number :	5
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	28
Number of Questions to be attempted:	28
Section Marks:	112

Sub-Section Number:	1
Sub-Section Id:	405036207
Question Shuffling Allowed :	Yes

Question Number : 98 Question Id : 4050363132 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

Authorhythmicity is present in which of the following group of tissues ?

Options :

- Skeletal muscle and cardiac muscle
- Cardiac muscle and visceral smooth muscle
- Skeletal muscle and visceral smooth muscle
- Cardiac muscle and neuronal tissue

Question Number : 99 Question Id : 4050363133 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Mechanical digestion in mouth in which food is mixed with saliva is _____ and the movement of food from mouth into the stomach is _____.

Options :

- Deglutition; propulsion
- Mastication; deglutition
- Segmentation; mastication
- Segmentation; propulsion

Question Number : 100 Question Id : 4050363134 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Except one of the following pairs represent drugs used in the treatment of glaucoma and their primary mechanism. Select the wrong pair from the following :

Options :

- Topical miotics : Increase aqueous outflow
- Topical beta-adrenergic blockers : Decrease aqueous outflow
- Topical carbonic anhydrase inhibitors : Decrease aqueous formation
- Topical prostaglandin analogues : Increase aqueous outflow

Question Number : 101 Question Id : 4050363135 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Which one of the following is not a renal osteodystrophy (type of bone disease associated with chronic kidney disease) ?

- Secondary hypoparathyroidism
- Osteomalacia
- Mixed renal osteodystrophy
- Adynamic bone disease

Question Number : 102 Question Id : 4050363136 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Identify antiarrhythmic drug that increases duration of QT wave and decreases the sinus rate, whereas it has no effect on QRS complex :

Options :

- Amiodarone
- Verapamil
- Lidocaine
- Quinidine

Question Number : 103 Question Id : 4050363137 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Identify phase of clinical trial having following features :

- (A) Trial is conducted on about 3000 patients
- (B) Purpose of trial is therapeutic confirmation
- (C) Safety and tolerability is evaluated on wider scale
- (D) Completion of trial is followed by New Drug Application (NDA)

Options :

- Phase - I

- Phase - II
- Phase - III
- Phase - IV

Question Number : 104 Question Id : 4050363138 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

Which one of the following is not affected in respiratory tuberculosis ?

Options :

- Pleural cavity
- Mediastinal lymph nodes
- Larynx
- Pericardium

Question Number : 105 Question Id : 4050363139 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

The fundamental principle "Law of similia" falls under which therapy ?

Options :

- Ayurveda
- Aroma therapy
- Homoeopathy
- Siddha

Question Number : 106 Question Id : 4050363140 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Nicotine from tobacco is an alkaloid which is :

Options :

- Crystalline
- Semisolid
- Oxygen free liquid
- Oxygen free solid

Question Number : 107 Question Id : 4050363141 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

In shikimic acid pathway, chorismate mutase converts chorismic acid to :

Options :

- Gutta
- Carotenoids
- Phytol
- Prephenate (Prephenic acid)

Question Number : 108 Question Id : 4050363142 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

In colour test for alkaloids colchicine with mineral acids gives :

Options :

- Violet colour

- Red colour
- Blue colour
- Yellow colour

Question Number : 109 Question Id : 4050363143 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The major property of Ayurvedic herbs, "Rasa" indicates :

Options :

- Taste
- Physicochemical properties
- Potency
- Post digestive effect

Question Number : 110 Question Id : 4050363144 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

A fixed oil when added to an equal volume of ethanol; clear liquid is obtained; on cooling at 0°C and on storage for three hours, the liquid remains clear such fixed oil is identified as :

Options :

- Neem oil
- Evening Primrose oil
- Soyabean oil

- Castor oil

Question Number : 111 Question Id : 4050363145 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

Plants which are not differentiated into root, stem and leaves are :

Options :

- Thallophyte
- Plant aginales
- Bromeliales
- Principes

Question Number : 112 Question Id : 4050363146 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

In Aloe the mucilage containing parenchymatous cells are present in :

Options :

- Epidermis
- Central parenchymatous region
- Vascular bundles
- Pericyclic cells

Question Number : 113 Question Id : 4050363147 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

Dragendorff's reagent is :

Options :

- Potassium bismuth iodide
- Potassium mercuric iodide
- Potassium picrate
- Potassium iodate

Question Number : 114 Question Id : 4050363148 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

In yarn, the presence of, irregular arrangement of the fibres, the ends of which often project from the surface is because of :

Options :

- Absence of combing
- Improper drying
- Absence of linters
- Presence of impurities

Question Number : 115 Question Id : 4050363149 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

As per the definition of D & C Act, Gudakhu (rubbed against human teeth) is considered as :

Options :

- Drug
- Cosmetic

- Food
- Sweetening gum

Question Number : 116 Question Id : 4050363150 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

As per the Drugs and Cosmetics Act-1940, if a drug is not labelled in prescribed manner it is a :

Options :

- Misbranded drug
- Adulterated drug
- Spurious drug
- Substandard drug

Question Number : 117 Question Id : 4050363151 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Standards to be complied under D & C act - 1940 for drugs imported, manufactured, stocked and exhibited for sale or distribution are covered under :

Options :

- Schedule L
- Schedule M
- First Schedule
- Second Schedule

Correct Marks : 4 Wrong Marks : 1

Who was the Chairman of the Drugs Enquiry Committee which was established in the year 1927 ?

Options :

- R.N. Chopra
- B. Mukherjee
- Joseph Bhoire
- S.S. Bhatia

Question Number : 119 Question Id : 4050363153 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

Which of the following Microorganism is used for the effective synthesis of interferon ?

Options :

- *Saccharomyces Cerevisiae*
- *Bacillus Subtilis*
- *Pseudomonas Aureginosa*
- *Micrococcus Luteus*

Question Number : 120 Question Id : 4050363154 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

During the denaturation cycle in polymerase chain reaction the temperature is raised to :

Options :

- 90 - 98°C

- 80 - 88°C
- 70 - 78°C
- 60 - 68°C

Question Number : 121 Question Id : 4050363155 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The Crystal form of Sulphacetamide is :

Options :

- Orthorhombic
- Triclinic
- Rhombohedral
- Monoclinic

Question Number : 122 Question Id : 4050363156 Question Type : MCQ Option Shuffling : Yes

Correct Marks : 4 Wrong Marks : 1

The general purpose sodalime glass is not a suitable material for fabricating the container for :

Options :

- Parenterals
- Dry powders
- Liquids for external use

- Oral solutions

Question Number : 123 Question Id : 4050363157 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

In solid-solid mixing, large scale continuous type of mixer is :

Options :

- Sigma blender
- Zigzag blender
- Ribbon blender
- Twin shell blender

Question Number : 124 Question Id : 4050363158 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

In International organization for standardization (ISO), standard pertaining to quality system model for quality assurance in production, installation and servicing is given under :

Options :

- ISO 9000
- ISO 9001
- ISO 9002
- ISO 9004

Question Number : 125 Question Id : 4050363159 Question Type : MCQ Option Shuffling : Yes
Correct Marks : 4 Wrong Marks : 1

In which year India signed General Agreement on Trade and Tariffs (GATT) i

- 1996
- 1994
- 1992
- 1990

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