



PHARMACY INDIA

PRACTICE WORK SHEET - 4

Name of Candidate:-.....

Date:-.....

Mobile No.:-.....

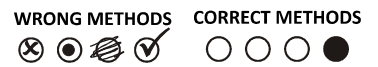
College Name:-.....

Candidate Sign

INSTRUCTIONS:-

1. The Questions Booklet contains 125 questions. Examinee is required to answer all 125 questions in the OMR Answer-Sheet and not in the questions Booklet. All questions carry equal marks.
2. Examine the Questions Booklet and OMR Answer-Sheet very carefully before you proceed. Faulty Questions Booklet due to missing or duplicate paper/question or having any other discrepancy should be immediately replaced.
3. Features:- (i) Each Worksheet Contain 125 Question (ii) Subject Wise Distribution (iii) According To Syllabus (iv) Designed By Team Of Experts

Invigilator Sign



PRACTICE WORK SHEET - 4

INDIA'S 1ST OFFLINE TEST SERIES WITH DETAILED EXPLANATION

FEATURES

- Each Worksheet Contain 125 Question
- Subject Wise Distribution
- According To Syllabus
- Designed By Team Of Experts



PHARMACY INDIA

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PHARMACEUTICS

- Which of the following is NOT a mechanism for achieving gastroretention
 - Osmosis
 - Floating
 - Mucoadhesion
 - Swelling
- Which of the following oxide is not used for achieving Amber color to glass
 - Manganese
 - Iron
 - Cobalt
 - Carbon
- Theories of emulsification are characterized by one of the following EXCEPT
 - Film formation
 - Phase inversion
 - Monomolecular adsorption
 - Solid particle adsorption
- Movement of charged particle through a liquid under the influence of an applied potential difference is known as
 - Sedimentation Potential
 - Streaming Potential
 - Electrophoresis
 - Electroosmosis
- As per US FDA, NDAs for new chemical entitles are classified as either
 - 'P' for product review or 'S' for standard review
 - 'P' for priority review or 'S' for standard review
 - 'P' for product review or 'S' for safety review
 - 'P' for priority review or 'S' for safety review
- The following is/are used to determine the amount of drug bound to a protein
 - Equilibrium dialysis
 - Solubility
 - pH titration
 - Distribution method
- Kinetically $\frac{x}{a(a-x)} kt$ is the expression for
 - First order reaction
 - Second order reaction
 - Pseudo first order reaction
 - Fractional order reaction:
- Identify the molecule which will not exhibit Dipole moment
 - Carbon dioxide
 - Carbon monoxide
 - Chloroform
 - Ammonia
- Phase solubility analysis curve is not a good tool for
 - Complex formation
 - Bioavailability determination
 - Polymorph detection
 - Impurity detection
- Hardinge mill is a variant of
 - Fluid energy mill
 - Ball mill
 - Hammer mill
 - Rotary cutter mill
- The valve acceptance limit in aerosol for 54 μ l or less is
 - $\pm 15\%$
 - $\pm 10\%$
 - $\pm 5\%$
 - $\pm 25\%$
- Conoweld system is associated with
 - Glass container
 - Stainless steel container
 - Aluminium container
 - Tin plate container
- Which is not a form of biological indicator
 - Spore
 - Spore suspension

will be your interpretation about the glass container you have used

- (a) It is a Type - II glass container
- (b) It is a Type - I glass container
- (c) It is a Type - III glass container
- (d) It is a Type - IV glass container

29. The dose of intramuscular injection is

- (a) 1-2 ml (b) 2-4 ml
- (c) 6-8 ml (d) 8-9 ml

30. Which of the following is water soluble coating material used in Microencapsulation

- (a) Hydroxyethyl cellulose (b) Ethyl cellulose
- (c) Cellulose nitrate
- (d) Polyethylene

31. Which is least toxic surfactant to be used in Ophthalmic formulation

- (a) Cationic
- (b) Anionic
- (c) Non-ionic
- (d) None of the above

32. Match the following

[1] Flash distillations	[P] Separation of acetone and water
[2] Fractional	[Q] Separation of distillations vitamin A from fish liver oil
[3] Steam	[R] Petroleum industry distillations for refining crude oil
[4] Molecular	[S] Extraction of volatile distillations oil

Choose the correct answer

- (a) 1-[Q], 2-[P], 3-[S], 4-[R]
- (b) 1-[S], 2-[Q], 3-[P], 4-[R]
- (c) 1-[S], 2-[R], 3-[Q], 4-[P]
- (d) 1-[R], 2-[P], 3-[S], 4-[Q]

33. Indian penal code, 1860 considers causing miscarriage a punishable offence but, the Medical Termination of pregnancy Act, permits termination of pregnancy under certain conditions. Which conditions permit this

- (a) Continuance of pregnancy would involve a risk to the life of pregnancy woman

- (b) Cause grave injury to the physical and mental health of the pregnancy woman
- (c) Child to be born would suffer from US physical or mental abnormalities physical or mental abnormalities
- (d) All of the above

34. No colour is permitted to be used in drugs except mentioned in the Drugs and Cosmetics Rules, 1945 under

- (a) Rule 126 (b) Rule 127
- (c) Rule 128 (d) Rule 129

35. The shape of semilogarithmic plot of first order kinetics is

- (a) Curve (b) Straight line
- (c) Hyperbola (d) Parabola

36. Mean residence time (MRT) is

- (a) $MRT = AUC / AUMS$
- (b) $MRT = AUMC / AUC$
- (c) $MRT = AUC / t_{max}$
- (d) $MRT = AUMC / t_{max}$

37. AUMC and AUC can be calculated from

- (a) Parallel equation
- (b) Trapezoidal rule
- (c) Semilog plot
- (d) Wagner-Nelson method

38. Identify the type of flow when Hausner's ratio value is greater than 1.5

- (a) Excellent flow (b) Poor flow
- (c) Good flow (d) Fair passable

PHARMACOLOGY

39. What are sutures

- (a) Cartilaginous joints
- (b) Non fibrous joints
- (c) Synovial joints
- (d) Fibrous joints of the skull

40. Which of the following cells are called scavenger cells

- (a) Neutrophils
- (b) Natural killer cells
- (c) Macrophages
- (d) Mast cells

41. Which is NOT true about Calcitriol

- (a) It is active form of Vit D₃

- (b) Glucosyl 4-6 transferase
- (c) Glycogen phosphorylase
- (d) Glucose-6-phosphatase

121. Why glucose and fructose form the same osazone

- (a) Because they are isomers
- (b) Because they are anomers
- (c) Because they have same molecular weight
- (d) Because they have exactly same structure of the molecule from carbon number 3 to 6 while the dissimilarity in structure at C₁ and C₂ disappears during the reaction with phenylhydrazine

122. Which of the following is the incorrect statement about hemoglobin

- (a) It contains four globin chain
- (b) It contains two different type of globin chains

- (c) Each haemoglobin molecule contains one heme molecule
- (d) It contains iron in the ferrous state

123. Lipids are stained by

- (a) Iodine
- (b) Sudan black
- (c) Tannic acid
- (d) Malachite green

124. The Bacterium that is most commonly used in genetic engineering is

- (a) Escherichia
- (b) Klebsiella
- (c) Proteius
- (d) Serratia

125. Pick the true statement regarding plasmids

- (a) Nonself replicative.
- (b) Acts as messenger RNA
- (c) Involved in conjugational transfer between strains
- (d) Involved in transformation.

PHARMACY INDIA

Z-value	The number of degrees of temperature changes required to produce a ten-fold change in D-value.
F - epsilon value (Thermal Death Time)	Time required to kill specific number of organisms under defined condition. Generally expressed as multiple of D like 2 D, 10 D etc.
Tyndallization	Employing a temperature of 100°C.
Inspissation	Employing temperature as low as 60°C.
Holder method	Heating of milk at 62.80° C for 30 minutes

15. Ans (c)

- The solid content at the room temperature could determine suppository hardness. Since skin temperature is about 32°C, it is able to predict dryness to touch from a solid content over 30% at that temperature. It is determined by dilatometry, which melting the base to carry out measurement.

16. Ans (a) The formation of the unstable forms of cocoa butter can be avoided by various methods

- If the mass is not completely melted the remaining crystals prevent the formation of the unstable form, high melting.
- Small amounts of stable crystals added to the melted cocoa butter accelerate the change in Table 20.2 from the unstable to the stable form; this process is called "seeding."
- The solidified origin and t melt is tempered at temperatures between 28 to obtain d and 32°C for hours or days, causing a with two co comparatively quick change from the unstable although b to the stable form.

17. Ans (a) Protection against Hydrolysis

- Hydrolytic reactions in solid drug products such as tablets, capsules, powders and granules may be prevented by avoiding their contact with moisture at the time of manufacture, packaging in suitable moisture resistant packs such as strip packs and storage in controlled humidity and temperature conditions. Extra protection can be achieved by incorporating a suitable desiccant in the pack such as silica gel bags.
- In case of liquid dosage forms such as solutions, suspensions and emulsions, the main emphasis is on reducing the rate of hydrolysis. Since hydrolysis is acid or base catalyzed, an optimum pH for maximum stability should be selected and the formulation should be stabilized at this pH by inclusion of proper buffering agents.
- General acid-base catalyzed hydrolytic decomposition due to components of buffers can be minimized by keeping the buffer concentration to the minimum required for maintaining the pH.

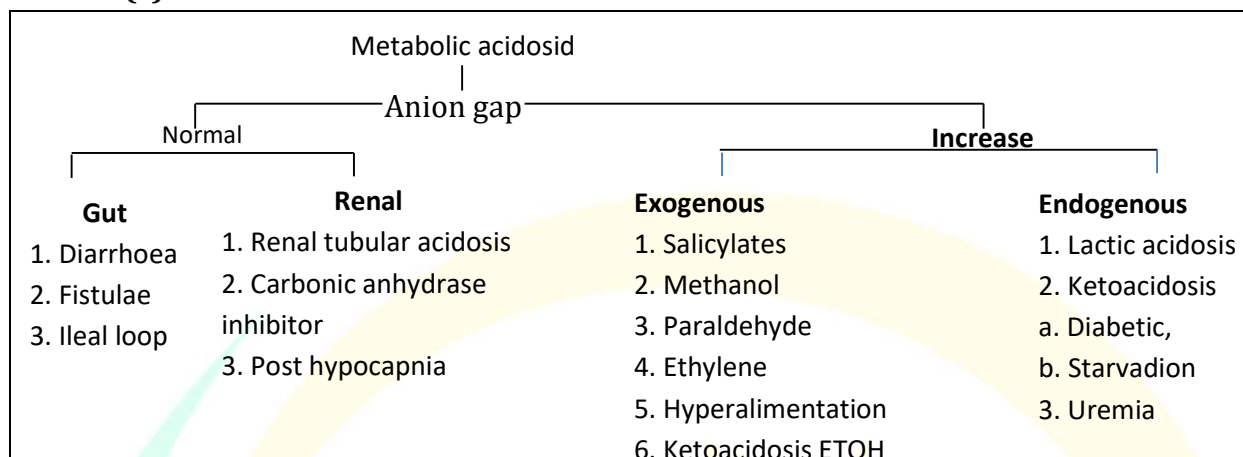
18. Ans (d) Factors affecting the rate of reaction

- a. Temperature b. Light c. Solvent d. Ionic strength
e. Dielectric constant of solvent f. Catalysis g. Surfactants

19. Ans (d) The staining on the teeth can be removed by following agents:

- a. Sodium perborate b. Hydrogen peroxide c. Magnesium peroxide

46. Ans (c) EFFECTS OF METABOLIC ACIDOSIS



47. Ans (b) CLASSIFICATION OF ANTITUBERCULAR DRUGS

FIRST LINE DRUGS		SECOND LINE DRUGS	
High antitubercular efficacy as well as low toxicity		Low antitubercular efficacy as well as high toxicity	
P-Pyrazinamide (Z)	Fluoroquinolones	Other oral drugs	Injectable drugs
E-Ethambutol (E)	Ofloxacin	Ethionamide	Kanamycin
R - Rifampicin (R)	Levofloxacin	Cycloserine	Amikacin
I - Isoniazid (H)	Moxifloxacin	Para amino salicylic acid	Capreomycin
S-Streptomycin (S)	Ciprofloxacin	Rifabutin	
		Rifapentine	
		Prothionamide	

48. Ans (a) ANAPLASIA

- Anaplasia is lack of differentiation and is a characteristic feature of most malignant tumours. Morphological and functional alteration/ changes date are different from of normal cells

49. Ans (a) ALIPHATIC CARBOXYLIC ACID

Drugs	Mechanism of action
Valproate, divalproex	<ul style="list-style-type: none"> Prolongation of sodium channel inactivation Enhance release of inhibitory transmitter GABA due to inhibition of its degradation (GABA-transaminase) Inhibition of T types of Ca⁺ current Blockage of excitatory of NBDA glutamate receptor.

50. Ans (a)

103. Ans (d)

- When energy of the electromagnetic radiation (photon energy) is equal to ΔE then only absorption takes place by the valence electrons. And finally, will give corresponding absorption bands in the spectrum.
- In other words, it is the record of amount of light absorbed by the sample as a function of the wavelength of light.

104. Ans (b)

B- Band	<ul style="list-style-type: none"> • Such type of bands arise due to $\pi - \pi^*$ prime transition in aromatic or hetero-aromatic molecules. • Benzene shows absorption peaks between 230-270nm.
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105. Ans (b)

<p>IR spectroscopy based on Hooke's law, suppose two atoms or masses are connected through spring (bond), then frequency of vibration can be represented by following equation</p> $\nu = \frac{1}{2\pi c} \sqrt{\frac{k}{\mu}}$	<p>μ = reduce mass is expressed as:</p> $\mu = \frac{m_1 \times m_2}{(m_1 + m_2)}$ <p>where,</p> <ul style="list-style-type: none"> ν = Frequency μ = Reduced mass c = Velocity of light k = Force constant of bond
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106. Ans (b)

- An IR spectrometer detects how the absorption of a sample varies with wavenumber, cm^{-1} , which is the reciprocal of the wavelength in cm (1/wavelength).
- The wavenumber is proportional to the energy or frequency of the vibration of the bonds in the molecule.
- The energy is a property of matter and space, objects and fields. It can be transferred objects and can also be converted in form. Energy is denoted in Hertz.

107. Ans (a) DIFFERENCE BETWEEN MASKING AND DEMASKING AGENT

MASKING AGENTS	DEMASKING AGENT
Masking agents auxiliary chelating agent forming complex with one metal in presence of other metal. These are reagents which prevent interfering ion from reaction without physical separation.	Demasking agent is the process in which masking substance reverses back to its ability to take part in the reaction. These are reagents which regain the ability of masked ion to enter the reaction with indicator and EDTA.

108. Ans (c) VARIOUS INDICATOR USED IN REDOX TITRATION

INDICATOR TYPE	EXAMPLE
SELF INDICATOR	KMnO ₄ Ceric ions, Iodine
INTERNAL INDICATOR	Ferrouin, Diphenyl amine
EXTERNAL INDICATOR	Potassium Ferricyanide

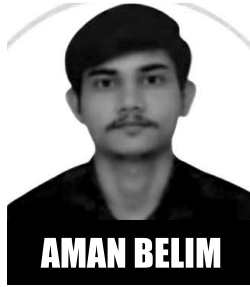
Heartiest congratulations



FOR THE REMARKABLE RESULT IN GPAT 2023



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Selection



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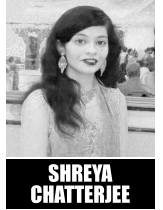
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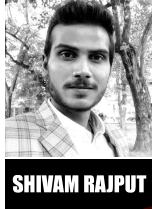
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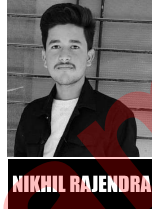
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AIR-354



AIR-487



AIR-505



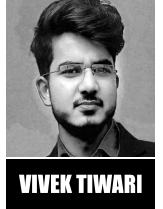
AIR-595



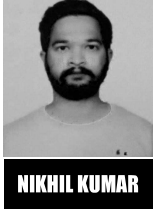
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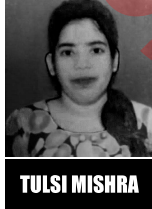
AIR-677



AIR-697



AIR-787



AIR-869



AIR-909



AIR-971



AIR-1052



AIR-1110



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