

# PHARMACY INDIA

#### **PRACTICE WORK SHEET - 12**

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** 

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WRONG METHODS CORRECT METHODS







# PRACTICE WORK SHEET - 12



NDIA'S TSTOFFLINE 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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# **12**

### **Practice Worksheet**

#### **PHARMACEUTICS**

- 1. Study conditions for long term stability testing of new drugs is
  - (a)  $30^{\circ}$  C  $\pm 2^{\circ}$  C/ 65% RH  $\pm 5\%$  RH
  - (b)  $30^{\circ}\text{C} \pm 2^{\circ}\text{C} / 75\% \text{ RH} \pm 5\% \text{ RH}$
  - (c)  $40^{\circ}$ C ± 2°C/65% RH ± 5% RH
  - (d)  $40^{\circ}$  C ± 2°C/ 75% RH ± 5% RH
- 2. Myrj 52 is
  - (a) Sodium oleate
  - (b) Polyoxy ethylene Mono-stearate
  - (c) Polyoxy lauryl ether
  - (d) Polyoxy ethylene castor oil
- 3. Which among the following is the Henderson Hasselbach equation for a weak base and its salt
  - (a)  $pH = pK_a + log([salt]/[base]$
  - (b)  $pH = pK_a + log([base]/[salt])$
  - (c)  $pH = pK_b + log([salt]/[base]]$
  - (d)  $pH = pK_b + log([base]/[salt])$
- 4. Hydroxy ethyl carboxy methyl alkyl imidazolium hydroxide is an amphoteric surfactant which is known as
  - (a) Macrogol
  - (b) Miranol
  - (c) Poly vinyl pyrrolidone
  - (d) Povidone
- 5. The antibacterial activity of phenols is increased by
  - (a) Increasing the pH
  - (b) The presence of 10% vegetable oil phase
  - (c) Increasing the temperature
  - (d) The addition of a quaternary ammonium compound

- 6. Bulk product is defined as
  - (a) Product completing all processing stages but not necessarily final packing
  - (b) A product ready for final dispatch
  - (c) Raw material used for making final dosage form
  - (d) A defined quantity of raw material from the same batch
- 7. If the pKa of probability is 7.9 and pH of the infected tissue is 8.9, the fraction of drug in the ionized form will be
  - (a) 10%
- (b) 1%
- (c) 90%
- (d) 99%
- 8. To rule out the probability of dose dumping from an oral CR dosage form, USP has included which sampling time point for in vitro dissolution test where D is normal dosing interval
  - (a) 0.50D
- (b) 0.25D
- (c) 50-1.0D
- (d) 1.0-2.0D
- 9. Hot stage microscopy is an important tool in preformulation studies for the study of
  - (a) Pseudopolymorphism
  - (b) Particle size measurement
  - (c) Microbial contamination
  - (d) Compaction behavior
- 10. Which among the following is a class-I method, used for rendering a solution of drug isotonic with body fluids
  - (a) Cryoscopic sphere viscometer
  - (b) White Vincent method
  - (c) Sprowls method
  - (d) Hammarlund method
- 11. Most commonly used tooling for tablet preparation is
  - (a) BB
- (b) B

**Practice Worksheet** 

- 4. Clindamycin+ Primaquine [S]Pneumocystis. carinii pneumonia
- (a) 1 [R], 2 [S], 3 [P], 4 [Q]
- (b) 1 [R], 2 [P], 3 [S], 4 [Q]
- (c) 1 [P], 2 [Q], 3 [R], 4 [S]
- (d) 1 [P], 2 [S], 3 [Q], 4 [R]
- 53. Which of the following is the most. common side effect with Azithromycin
  - (a) Nausea
- (b) Diarrhoea
- (c) Vomiting
- (d) Abdominal Pain
- 54. Fastest acting triptan is
  - (a) Rizatriptan
- (b) Nizatriptan
- (c) Zolmitriptan
- (d) Frovatriptan
- 55. Match the following

**Drugs affecting 5-HT system** 

- 1. Synthesis inhibitor
- [P]

Reserpine

- 2. Uptake inhibitor
- [Q] P-

chlorophenylalanine

3.Degradation inhibitor [R]

Tricyclic antidepressant

- 4. Storage inhibitor
- **[S]**
- Chlorgyline
- (a) 1 [P], 2 [Q], 3 [R], 4 [S]
- (b) 1- [Q], 2- [R], 3 [P], 4 [S]
- (c) 1- [Q], 2- [R], 3 [S], 4 [P]
- (d) 1 [Q], 2 [P], 3 [R], 4 [S]
- 56. Which of the following drug is available intranasal formulation
  - (a) Aspirin
- (b) Clozapine
- (c) Rupatadine
- (d) Azelastine
- 57. Isoxsuprine used as a
  - (a) Anorectics
  - (b) Nasal decongestants
  - (c) Uterine relaxant
  - (d) Pressor agent
- 58. Which of the following not true for Prazosin
  - (a) Highly selective α<sub>1</sub> blockers having  $\alpha_1$ :  $\alpha_2$  selectivity ration 1000:1
  - (b) Prazosin dilates arterioles more than veins

- (c) Prazosin dilates veins more than arterioles
- (d) It blocks vasoconstriction and produces fall in BP
- 59. In the treatment of hypertension the adrenergic blockers have the following advantages
  - (a) They have minimal effect on work capacity sleep quality and libido
  - (b) They do not cause postural hypotension
  - (c) Used alone, they have high ceiling antihypertensive efficacy
  - (d) They can be used in combination with any other antihypertensive drug
- 60. Cerebroprotective calcium channel blocker is
  - (a) Amlodipine
- (b) Enalapril
- (c) Nifedipine
- (d) Nimodipine
- 61. Which of the following in not a SSRI
  - (a) Escitalopram
- (b) Sertraline
- (c) Paroxetine
- (d) Amitriptyline
- 62. The pain of a patient with bone cancer has been managed with a Morphine pump. However, he has become tolerant to Morphine. Which of the following might be indicated to ameliorate his pain
  - (a) Codeine
- (b) Methadone
- (c) Meperidine (d) Fentanyl
- 63. Inverse agonist is
  - (a) Buspirone (b) β carboline
  - (c) Flumazenil (d) Zolpidem
- 64. False statement about Selegiline is
  - (a) It is a MAO-A inhibitor
  - (b) Does not cause cheese reaction
  - (c) May be used in "on-off" phenomenon
  - (d) It is used in parkinsonism
- 65. Which diuretic is preferred for elders with isolated systemic hypertension
  - (a) Azetazolamide (b) Mannitol
  - (c) Thiazides
- Loop diuretics (d)

partition coefficient of boric acid between water and amyl alcohol, when calculated at molar concentration for each of the solution, is

- (a) 1.33
- (b) 0.75
- (c) 0.30
- (d) 3.33

#### 104. match list I with list II, and

List I	List II
VOLUMETRIC	PRIMARY
SOLUTION	STANDARD
1. 0.1 M l <mark>odi</mark> ne	[P] Potassium
	iodate
2. 0.1M Sodium	[Q] Pot <mark>assium</mark>
thiosulphate	brom <mark>ate</mark>
3. 0.1M Sodium	[R] <mark>Potassium</mark>
hydroxide	hyd <mark>rogen</mark>
	phth <mark>alate</mark>
4. 0.1M Perchloric	[S] Arsenic
acid	trioxide
	[T] Potassium
	hydrogen
	phthalate

# Choose the correct answer from the options given below

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

# 105. The wavelength at which maximum absorption of radiation takes place is known a

- (a) βmax
- (b) αmax
- (c) <sup>\lambda</sup>max
- (d) Amax

# 106.What will be type of proton NMR spectrum of 2,2-dimethylpropane

- (a) Quartet
- (b) Doublet
- (c) Triplet
- (d) Singlet

- 107.For 1,3-butadiene, there are molecular orbitals for electrons
  - (a) 2
- (b) 4
- (c) 6
- (d) 8

## 108. Monochromator for IR is composed of

- (a) Glass
- (b) Quartz
- (c) Alkyl halide (d) All of the above

# 109. Which vibration absorbs highest wavelength

- (a) Asymmetric stretching
- (b) Symmetric stretching
- (c) Scissoring
- (d) Rocking

# 110. Absorption in the IR region is due to changes in which energies in the molecule

- (a) Vibrational rotational
- (b) Vibrational electronic
- (c) Rotational translational
- (d) Electronic, vibrational

# 111. The study of measurement of emitted radiation of electrons undergo transition from singlet excited to singlet ground state is

- (a) Phosphorescence
- (b) Flame photometry
- (c) Fluorimetry
- (d) Excitation

# 112. The end point of complexometric titrations is shown by means of

- (a) Colorimetry (b) pH meter
- (c) pM Indicator (d) Acid base titration

#### 113. Reduction involves

in.....oxidation number

- (a) Decrease
- (b) Increase
- (c) Independence
- (d) Remain constant

#### 114. Which is example of aprotic solvent

- (a) H<sub>2</sub>SO<sub>4</sub>
- (b) KOH
- (c) HAC
- (d) Benzene

 The difference may be due to the electrically charged surface condition of the particles after milling. Aggregation of particles becomes a problem for those that are 5 microns or smaller in size.

• For particles below 0.5 microns in size, the dispersion problems increase exponentially. Different powdered substances show similar problems of aggregation in the submicron size.

#### 26. Ans (b) CRYSTALLIZER AND THEIR USES

CRYSTALLIZER	USES	
Agitated batch	The manufacture of a wide range of high value	
crystallizer	fine chemicals	
Swenson walker	Continuous process	
crysta <mark>llizer</mark>		
Krystal c <mark>ryst</mark> allizer	Crystallization of sodium chloride and	
	magnesium sulphate	
Vacuum Crystallizer	Thermolabile substances	

#### 27. Ans (b)

- The Central Council of PCI elects the President, Vice-President and five members of the Executive Committee (CEC) from amongst its members by election conducted in accordance with the norms laid down in the Pharmacy Act Any dispute arising out of the election of Executive Committee of PCI is referred to the Ministry of Health and Family Welfare, Government of India, whose decision shall be final.
- The President or in his absence Vice-President chairs the meetings of the Central Council and the Executive Committee ident chairs the m
- The term of the Vice-President is for 5 years unless otherwise, re-elected or renominated as the case may be.

#### 28. Ans (d)

TERMS	DESCRIPTION	
Opium	Poppy straw means all part (except the seed) of the opium poppy.	
Cannabis	Bhang: Leaves of plant Cannabis sativa.	
	Ganja: Flowering or fruiting tops of the cannabis plant (exclude seed)	
	or leaves).	
	Charas: Separated resin and resin known as hashish oil or liquid	
	hashish.	

#### 29. Ans (a) PLASMA CONCENTRATION OF THE DRUG

- In case of drugs which are secreted or reabsorbed actively, the rate process increases with an increase in plasma concentration to a point when saturation of carrier occurs
- In case of actively reabsorbed drugs, excretion is negligible at low plasma concentrations. Such agents are excreted in urine only when their concentration in the glomerular filtrate exceeds the active reabsorption capacity, e.g. glucose. With drugs that are actively secreted, the rate of excretion increases with increase in plasma concentration up to a saturation level.

Practice Worksheet 2

#### 62. Ans (d) FENTANYL

MECHANISM OF	SIDE EFFECTS	CLINICAL APPLICATIONS
ACTION		
Binds with the	Intolerance,	80-100 times more potent than
opioid receptor	respiratory	morphine in analgesic & respiratory
	depression,	depression. It is used to ameliorate
	constipation,	pain caused with bone cancer which
	hypotension,	could not managed by morphine
	urinary retention	

#### 63. Ans (b) DRUG ACTING ON GARA RECEPTOR

DRUGS	MECHANISM
Muscimol	GABA <sub>A</sub> agonist
Bicuculline	GABA <sub>A</sub> antagonist
Baclofen	GABA <sub>B</sub> agonist
Phaclofen	GABA <sub>B</sub> antagonist
β carboline	GABA inverse agonist
Barbiturates	GABA-mimetic action
Benzodiazepines (BZD)	GABA-facilitatory action

#### 64. Ans (a)

- It is a selective and irreversible MAO-B inhibitor.
- Only nonselective MAO inhibitors causes cheese reaction.
- "on-off" phenomenon is exhibited by levodopa, in that case selegiline can be administer for the management of parkinsonism.

**65. Ans (c)** Thiazides such as hydrochlorothiazide, chlorthalidone are the diuretic of choice for uncomplicated hypertension. They are more effective in the elderly patients.

**66.** Ans (a) The antidote for various overdose of drugs or poisoning are given below

DRUGS	ANTIDOTE
Paracetamol	Acetylcysteine
Opium	Naloxone
Antimuscarnic agent	Neostigmine
Coumarin	Phytomenadine
Cholinesterase inhibitor	Pralidoxine
Heparin	Protamine

#### 67. Ans (c) ASAVA

Processed by soaking the drug in powdered form or decoction. During soaking, its
fermentation generating alcohol and in process facilitating extraction of active constituents
contained in the drugs. Alcohol so generated also serves as preservative in the product
therefore has infinite period of shelf life. eg-Punarnavasava

#### 68. Ans (b)

• Chaemotaxonomy establishes a relationship between position of plant and attempts to utilise chemical facts for understanding the biological evaluation and relationships.

An analytic method for detecting and measuring fluorescence in compounds that uses ultraviolet light stimulating the compounds, causing them to emit visible light and measurement of emitted radiation of electrons undergo transition from singlet excited to singlet ground state is called fluorometry.

#### 112. Ans (c) pM (POTENCY OF METAL) INDICATOR

- The metallochromic indicators used in complexometric titration are organic compounds which can form intensely colored complex with EDTA.
- The This metal-indicator complex is weaker than the Metal-EDTA complex and it has different color than uncompleted indicator.
- The During titration, the metal ion from metal-Indicator complex is replaced to form Metal EDTA complex.

#### 113. Ans (a) DETECTION OF OXIDATION AND REACTION

Oxid <mark>at</mark> ion	Oxidation reaction is a chemical reaction which is accompanied	
<i></i>	by increasing of oxidation number.	
<b>Reduction</b>	Reduction reaction is a chemical reaction which is accompanied	
	by decreasing of oxidation number.	

#### 114. Ans (d) SOLVENT USED I<mark>N NON-AQUEOU</mark>S TITRA<mark>TION</mark>

**Protophilic solvents:** Solvents which have greater tendency to accept protons (Basic) i.e., NaOH, KOH etc.

**Protogenic solvents:** Solvents which have the tendency to produce protons (Acidic) Le.. HCI, H<sub>2</sub>SO<sub>4</sub> etc.

**Amphiprotic solvents:** Solvents which act both as protophilic or protogenic, eg.. H<sub>2</sub>O, HAC etc.

**Aprotic solvents:** Solvents which neither donate nor accept protons. e.g., benzene, carbon tetrachloride, carbon disulphide etc.

#### 115. Ans (c)

The Penicillin nucleus to which 6-amino Penicillanic acid (6-APA) side chain is attached is believed to be synthesized from the amino acids L-cysteine and Valine.

**116. Ans (b)** DNA polymerases can only make DNA in the 5' to 3' direction, and this poses a problem during replication. A DNA double helix is always anti-parallel; in other words, one strand runs in the 5' to 3' direction, while the other runs in the 3' to 5' direction.

#### 117. Ans (d)

Agglutination of mismatched blood is a function of IgM antibodies. IgM antibodies are pentameric antibodies that are large enough to induce agglutination of red blood cells.

#### 118. Ans (b)

- Classification of Lipoproteins can also be done based on electrophoretic mobilities. Lipoproteins may be separated according to their electrophoretic properties into a, pre-ß, B, and broad beta lipoproteins.
- The mobility of a lipoprotein is mainly dependent upon protein content. Those with higher protein content will move faster towards the anode and those with minimum protein content

# Heartiest congratulations



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AIR-505



AIR-909



**AIR-250** 





AIR-971



**AIR-257** 



AIR-636





AIR-297



AIR-677



AIR-1110





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