# **GPAT 2025 Memory Based Question Paper**

**Time Allowed :**3 Hours | **Maximum Marks :**500 | **Total questions :**125

# **General Instructions**

# Read the following instructions very carefully and strictly follow them:

1. Duration of Exam: 3 Hours

2. Total Number of Questions: 125 Questions

3. Type of Questions: Multiple Choice Questions (Objective)

4. Marking Scheme: 4 mark awarded for each correct response

5. Negative Marking: -1 mark for each wrong response.

#### 1. Match the following:

- (P) Schedule H
- (Q) Schedule G
- (R) Schedule P
- (S) Schedule F2

# Descriptions:

- (I) Life period of drugs
- (II) Drugs used under RMP
- (III) List of Prescription Drugs
- (IV) Standards for surgical dressing
- (A) P-I, Q-II, R-IV, S-III
- (B) P-III, Q-IV, R-I, S-II
- (C) P-III, Q-II, R-I, S-IV
- (D) P-IV, Q-III, R-II, S-I

#### 2. Match the following:

- (1) Schedule FF
- (2) Schedule F3
- (3) Schedule V
- (4) Schedule Y

#### Descriptions:

- (P) Standards of patent and proprietary medicines
- (Q) Requirements and guidelines for clinical trials
- (R) Standards for sterilized umbilical tapes
- (S) Standards for Ophthalmic preparations
- (A) 1-[P], 2-[Q], 3-[S], 4-[R]
- (B) 1-[Q], 2-[R], 3-[P], 4-[S]
- (C) 1-[S], 2-[R], 3-[P], 4-[Q]
- (D) 1-[R], 2-[P], 3-[Q], 4-[S]

3. If the label or the container bears the name of an individual or company purporting		
to be the manufacturer of the drug, which individual or company is fictitious or does		
not exist, it is:		
(A) Misbranded Drug		
(B) Adulterated Drug		
(C) Spurious Drug		
(D) Not of Standard Quality		
4. ISO for quality assurance of Design, Development, Processing, Installation, and		
Servicing is:		
(A) ISO 9000		
(B) ISO 9001		
(C) ISO 9002		
(D) ISO 9003		
5. According to the ICH guidelines for stability studies, Climatic Zone II temperature		
and relative humidity are respectively:		
(A) $25^{\circ}C$ and RH $60\%$		
(B) $30^{\circ}C$ and RH $65\%$		
(C) $40^{\circ}C$ and RH $75\%$		
(D) $25^{\circ}C$ and RH $75\%$		
6. How much volume of Raw spirit can an excise officer withdraw as sample?		
(A) One sample of 200 ml		
(B) Two samples of 150 ml each		
(C) Three samples of same batch, each not more than 100 ml		
(D) One sample of 500 ml		

- (A) 50 Sq. Ft.
- (B) 75 Sq. Ft.
- (C) 100 Sq. Ft.
- (D) 150 Sq. Ft.

# 8. Manufacturing Specification for tooling has been standardized by?

- (A) USFDA
- (B) CDSCO
- (C) Indian Pharmacopoeial Commission
- (D) WHO

#### 9. Match the pair of drugs and their family:

#### Column A (Drugs):

- 1. Snake root
- 2. Artemisia
- 3. Bitter almond
- 4. Myrrh

#### Column B (Family):

- (P) Compositae
- (Q) Rosaceae
- (R) Apocynaceae
- (S) Burseraceae
- (A) 1-[R], 2-[P], 3-[Q], 4-[S]
- (B) 1-[Q], 2-[R], 3-[P], 4-[S]
- (C) 1-[P], 2-[Q], 3-[S], 4-[R]
- (D) 1-[S], 2-[P], 3-[R], 4-[Q]

#### 10. Which of the following alkaloids are found as salts of meconic acid?

- (A) Rauwolfia Alkaloid
- (B) Tropane Alkaloid

- (C) Ergot Alkaloid
- (D) Opium Alkaloid

#### 11. Choose the correct statement from the following:

- (P) Anthraquinone derivatives are generally detected by Borntrager's test
- (Q) Anthrone is yellow colored and soluble in alkali
- (R) Anthranol is insoluble in alkali and shows strong red fluorescence
- (S) Borntrager's test gives negative result with Anthranol (Reduced form)
- (A) P and S Only
- (B) R Only
- (C) Q and R Only
- (D) P Only

#### 12. Choose the correct statement from the following:

- (A) Tannin solution precipitate alkaloid
- (B) Hydrolysable tannin produce gallic and ellagic acid by enzymatic and acid hydrolysis
- (C) Condensed tannin converted into red color substance known as phlobaphene on acid and enzymatic hydrolysis
- (D) Tannin are insoluble in water
- (A) A and C Only
- (B) B Only D Only
- (C) C Only
- (D) A, B and C are correct

#### 13. Trikatu in Ayurveda is a combination of:

- (A) Black mustard, Long pepper, Ginger
- (B) Black pepper, Long pepper, Betal
- (C) Black pepper, Long pepper, Ginger
- (D) Black pepper, Small pepper, Ginger

# 14. Glycogenic amino acids enter TCA cycle except: (A) Alanine (B) Glycine (C) Glutamate (D) Aspartate 15. Match the following: (P) Tuberculosis (Q) Diphtheria (R) Yellow fever (S) Malaria Descriptions:

- (1) Bacterial
- (2) Viral
- (3) Toxoids
- (4) Protozoal
- (A) P-1, Q-3, R-2, S-4
- (B) P-3, Q-1, R-4, S-2
- (C) P-1, Q-2, R-3, S-4
- (D) P-4, Q-1, R-2, S-3

## 16. Which of the following is used to evaluate disinfectant?

- (A) Widal test
- (B) VRDL test
- (C) Chick Martin test
- (D) None of these

# 17. Oral vaccine such as Dukoral® and Shanchol™ is used for prevention of:

- (A) Pneumonia
- (B) Ebola virus

(C) Cholera	
(D) Polio	
18. Which parasitic worm is responsible for causing l	ymphatic filariasis?
(A) Wuchereria bancrofti	
(B) Brugia malayi	
(C) Onchocerca volvulus	
(D) Ancylostoma duodenale	
19. Which statistical test is used to compare mean of	two identical group?
(A) ANOVA	
(B) Sample t test	
(C) Paired t test	
(D) Pooled t test	
20. Which enzyme is responsible for albinism?	
(a) Beta-hydroxylase	
(b) Pyruvate dehydrogenase	
(c) Hydroxylase	
(d) Tyrosinase	
21. Which anemia is caused due to Microcytic, hypoc	chromic red blood cells?
(a) Pernicious anemia	
(b) Aplastic anemia	
(c) Iron deficiency anemia	
(d) Hemolytic anemia	
22. Which of the following is the differential test i.e. i	t does not require the need to
make assumption of population following normal or	differential distributed?
(a) ANOVA	

(b) Student T test (c) Fisher LSD test (d) Kruskal-Wallis test ORGANIC CHEMISTRY & PHYSICAL CHEMISTRY 23. Which of the following is correct stability order of alkenes? (a) Trans-2-butene > Cis-2-Butene > Isobutene > but-1-ene (b) Cis-2-Butene > Trans-2-butene > Isobutene > but-1-ene (c) Isobutene > but-1-ene > Cis-2-Butene > Trans-2-butene (d) Isobutene > Trans-2-butene > Cis-2-Butene > but-1-ene 24. Cis-trans (E/Z) Isomers, EXCEPT (a) 1-butene (b) 2-butene-1-ol (c) 2-chloro-3-hexene (d) 4-chloro-2-pentene 25. Number of stereoisomers of 3-bromo-2-butanol: (A) 2 **(B)** 4 **(C)** 6 (D) 8

# 26. In Friedel-Crafts reaction, benzene reacts with isopropyl bromide in the presence of aluminium trichloride to give:

- (A) Benzophenone
- (B) Acetophenone
- (C) Isopropyl benzene
- (D) n-Propyl benzene

27. Number of conformational isomers of $n$ -butane:	
(A) One-anti & one-gauche	
(B) One-anti & two-gauche	
(C) Two-anti & one-gauche	
(D) Two-anti & two-gauche	
28. Debye is a unit of:	
(A) Dipole moment	
(B) Field effect	
(C) Dissociation constant	
(D) Bond energy	
29. Which is considered an exception to Markovniko	ov's rule <i>EXCEPT</i> :
(A) Addition of HI in an alkene	
(B) Addition of HCl in an alkene	
(C) Addition of HBr in the presence of peroxide in an a	lkene
(D) Addition of H <sub>2</sub> O in the presence of acid	

- (A) Cyclopropane
- (B) Cyclobutane
- (C) Cyclopentane
- (D) Cyclooctane

# 31. Walden inversion includes:

- (A) SN1
- (B) SN2
- (C) Both SN1 and SN2
- (D) Elimination

#### 32. Diels-Alder reaction is:

- (A) Cyclo addition
- (B) Elimination
- (C) Nucleophilic addition
- (D) Electrophilic substitution

#### 33. Alkyl halide is converted to alkane:

- (A) Wurtz Reaction
- (B) Birch reaction
- (C) Sabatier-Senderens reaction
- (D) Grignard reaction

#### 34. Aryl diazonium reacts with fluoroborate to give aryl fluoride:

- (A) Balz-Schiemann reaction
- (B) Stephen reaction
- (C) Gattermann reaction
- (D) Gomberg reaction

#### **36.** Pyridine is a base with $K_b$ value:

- (A)  $1.7 \times 10^{-9}$
- **(B)**  $2.3 \times 10^{-12}$
- (C)  $3.2 \times 10^{-6}$
- (D)  $3.8 \times 10^{-7}$

## 37. Naturally occurring pilocarpine is:

- (A) 2R,4R (+) Pilocarpine
- (B) 3S,5R () Pilocarpine
- (C) 2S,4R () Pilocarpine
- (D) 3R,4S (+) Pilocarpine

38. In a drug discovery process:			
<ol> <li>Lead optimization</li> <li>Target selection</li> <li>Lead findings</li> </ol>			
			(A) 3-2-1
			(B) 1-2-3
(C) 2-3-1			
(D) 3-1-2			
39. Methotrexate, used as an antimetabolite, is a product of N-methylation of			
para-aminobenzoic acid and pyridine hydroxyl. The isosteric group is			
(A) SH			
(B) $CH_3$			
C) $NH_2$			
(D) CF <sub>3</sub>			
40. A/B Trans steroidal hydrogen in the 5th position			
(A) Beta configuration			
(B) Eclipsed conformation			
(C) Alpha configuration			
(D) Gauche conformation			
41. Total Number of Carbon atoms in pregnane is			
(A) 18			
(B) 19			
(C) 21			
(D) 27			
42. Hypnotics and sedative barbiturate $pK_a$ value			

(A) 4-6(B) 5-8(C) 9-11(D) 7-943. Structure of hybrid in methadone and meperidine (A) Pentazocine (B) Tramadol (C) Methotrexate (D) Labetalol 44. Steroidal cholestane ring fused with (A) 5, 6, 7, 9, 10, 13 (B) 5, 6, 8, 9, 10, 11 (C) 5, 6, 8, 9, 10, 13 (D) 5, 6, 8, 9, 10, 14 45. UV absorbance value of Morphine (A) 266 nm (B) 276 nm (C) 256 nm (D) 286 nm 46. Complexometric titration indicators Except (A) Mordant black - II (B) Ferroin (C) Catechol violet (D) Xylene orange 47. In complexometric titration, the masking agent used to mask Iron (II) ion

(A) KCN	
(B) Thio glycerol	
(C) Tri ethanol amine	
(D) Ammonium Fluoride	
48. Which is used as Fajan's method indicator	
(A) Dichlorofluorescein	
(B) Methyl red	
(C) Phenolphthalein	
(D) Xylene orange	
49. Cyanide used in nepheloturbidometry as a salt of	
(A) Ag	
(B) Au	
(C) Na	
(D) K	
50. How to prepare 200 mL of a 0.15 M sodium hydroxide solution?	
(A) 1.0 g	
(B) 1.2 g	
(C) 1.5 g	
(D) 1.8 g	
51. Stationary phase for steroidal chromatography is:	
(A) Acylated paper	
(B) Carboxy Paper	
(C) Kieselguhr paper	
(D) Silica Paper	

52. Choose the correct statement in a potentiometric titration: Salt bridge is used as

- (i) Prevent contamination of reference electrode to test solution (ii) No use of design reference electrode of salt bridge (iii) No effect in test solution (iv) Solidified with 3% agar (a) Only I (b) I and III (c) I and IV (d) III and IV 53. Which of the following is not a Karl Fischer reagent (a) Iodine (b) Pyridine (c) Pyrimidine (d) Sulphur dioxide 54. In Ilkovic equation, m determines (a) Determine mass of analyte (b) Determine mass of electron transfer (c) Determine mass of mercury flow transfer (d) Determine drop time 55. Enzyme activation energy (E<sub>a</sub>) for thermal decomposition of glucose in a first-order reaction is calculated by
- (a) The x-axis intercept of the Arrhenius plot
- (b) The y-axis intercept of the Arrhenius plot
- (c) Slope of the Arrhenius plot
- (d) Rate constant at room temperature

# 56. In conductometric titration of acetic acid with 0.1 N sodium hydroxide, complete neutralization occurs. Further addition of titrant results in

(a) Increase the conductance	
(b) Decrease the conductance	
(c) No change in the conductance	
(d) Colour change (orange to red)	
57. Vincristine in ultraviolet spectrophotometry $\lambda_{max}$ value	
(a) 217 nm	
(b) 245 nm	
(c) 290 nm	
(d) 360 nm	
58. Which of the following liquids has the highest surface tension at 20°C?	
(a) Carbon tetrachloride	
(b) Mercury	
(c) Oleic acid	
(d) Octane	
59. Which diluent is incompatible with primary amines?	
(a) Lactose	
(b) Mannitol	
(c) Microcrystalline cellulose	
(d) Dextrose	
60. Maximum limit of iron used in gelatin for manufacturing Soft Gelatin capsule sl	 hell
should not exceed	
(a) 15 PPM	
(b) 20 PPM	
(c) 25 PPM	
(d) 50 PPM	

The inverse slo	pe of this line is called		
(a) Thermal dea	th line		
(b) D value			
(c) Z value	c) Z value		
(d) Half-life			
62. Sedimentat	tion volume is measured by		
(a) Ultimate vol	ume of sediment / initial volume of total suspension		
(b) Flocculation	of sedimentation		
(c) Initial volun	ne of total suspension / ultimate volume of sediment		
(d) Volume of f	locculated suspension		
63. According	to USP, the range of sparingly solubility required to dissolve 1 part of		
solute should b	oe e		
(a) 1 - 10			
(b) 10 - 30			
(c) 30 - 100			
(d) 100 - 1000			
64. Rheogram	of which type of flow does not start from the origin		
(a) Plastic Flow			
(b) Dilatant Flo	W		
(c) Pseudoplast	ic Flow		
(d) Newtonian			

(a) Fair

(b) Excellent

(c) Good	
(d) Very poor	
66. As per USP, the maximum con	ncentration of benzalkonium chloride used as a
preservative in parenteral formul	ations is
(a) 0.01%	
(b) 0.001%	
(c) 0.05%	
(d) 0.005%	
67. Which of the following is com	monly used as a broad-spectrum preservative in
pharmaceutical formulations?	
(a) Benzoic acid	
(b) Benzalkonium chloride	
(c) Ascorbic acid	
(d) Vitamin C	
68. Statement of deflocculated sus	spension
(a) Sedimentation for rapidly	
(b) Sedimentation for slowly	
(c) Easy to redisperse	
(d) Unpleasant in appearance	
69. Common name of convective to	transport
(a) Pore transport	
(b) Active transport	
(c) Passive transport	
(d) Endocytosis transport	

(a)  $500\text{--}1000~\mu$ (b)  $0.001\text{--}0.1~\mu$ (c)  $200\text{--}500~\mu$ (d)  $0.5\text{--}1.50~\mu$ 

#### 71. Select the statement of Smectic liquid crystal

- (a) Mobility in two directions or no rotation
- (b) Three directions or no rotation
- (c) Mobility in two directions or rotation in one axis
- (d) Mobility in three directions or rotation in one axis

#### 72. The flow of viscosity increases when the substance is sheared. This is known as

- (a) Dilatant
- (b) Plastic
- (c) Pseudoplastic
- (d) Newtonian

# 73. Equipment used in structured breakdown of thixotropy

- (a) Viscometer
- (b) Planimeters
- (c) Rotameters
- (d) Orifice meter

#### 74. Thixotropic behavior is associated with

- (a) Increase in viscosity
- (b) Decrease in viscosity
- (c) Solid & Liquid behavior
- (d) Sol-gel transformation

#### 75. Match the following:

I. True density

II. Granule density

III. Bulk density

IV. Bulkiness

(a) (I)-(S), (II)-(P), (III)-(Q), (IV)-(R)

(b) (I)-(Q), (II)-(S), (III)-(P), (IV)-(R)

(c) (I)-(R), (II)-(S), (III)-(Q), (IV)-(P)

(d) (I)-(S), (II)-(R), (III)-(Q), (IV)-(P)

(P) Reciprocal of bulk density

(Q) Graduated cylinder method

(R) Helium Pycnometer

(S) Mercury displacement method

## 76. Kozeny-Carman equation is related to

- (a) Pressure drop in turbulent flow
- (b) Sedimentation velocity
- (c) Heat transfer
- (d) Permeability to particle size & bed porosity

## 77. Theory of filtration is related to

- (a) Dalton's method
- (b) Darcy equation
- (c) BET equation
- (d) Stokes' equation

# 78. The equation

$$\log\left(\frac{P_1}{P_2}\right) = \frac{2.303 \cdot \Delta H_v \cdot (T_2 - T_1)}{R \cdot T_1 \cdot T_2}$$

#### is related to:

- (a) Clausius-Mossotti equation
- (b) BET equation
- (c) Boltzmann-Planck equation
- (d) Clausius-Clapeyron equation

# 79. Nitrodisc is an example of which type of Drug Delivery System?

(a) Ocular				
(b) Transdermal (c) Mucosal (d) Nasal				
			80. CLASS-II method for tonicity adjustment is:	
			(a) Cryoscopic	
(b) NaCl Equivalent				
(c) White Vincent				
(d) Mole fraction				
81. If the granule density of potassium bicarbonate is 2.350 g/cc and the tro	ue density is			
3.560 g/cc, determine the interparticle porosity of the powder. (a) 0.56 (b) 0.44				
		(c) 0.66		
		(d) 0.34		
82. Triple point of water occurs at which temperature and pressure?				
(a) 0.098°C and 4.58 mmHg				
(b) 0.0098°F and 4.58 mmHg				
(c) 0.098°F and 4.58 mmHg				
(d) 0.0098°C and 4.58 mmHg				
83. In supercritical fluid extraction, what will be the critical temperature (	CT) and			
critical pressure (CP)?				
(a) 34°C and 50 atm				
(b) 31.1°C and 73.8 atm				
(c) 54°C and 78 atm				

84. Examples of continuous shelf moving dryer are
(a) Vacuum dryer
(b) Tray dryer
(c) Spray dryer
(d) Turbo tray dryer
85. An antibiotic dissolves completely in 250 mL of aqueous solution at pH range 1–6.8
and $37^{\circ}\text{C},$ and after dissolution, it shows $85\%$ absorption in the body. Based on the
Biopharmaceutics Classification System (BCS), in which class does this drug belong?
(a) Class I
(b) Class II
(c) Class III
(d) Class IV
86. Manucol is also known as
(a) Sodium alginate
(b) Alginic acid
(c) Carbopol
(d) Guargum
87. Which of the following anticancer drugs produces hand-foot syndrome?
(a) Methotrexate
(b) Capecitabine
(c) Vincristine
(d) Doxorubicin
88. Which of the following is a P2Y enzyme inhibitor?
(a) Clopidogrel
(b) Aspirin

(c) Dipyridamole	
(d) Tirofiban	
89. Vigabatrin is an inhibitor of	
(a) GABA synthase	
(b) GABA transaminase	
(c) Voltage-gated Na channel	
(d) Chloride channel	
90. PDE 4 inhibitor used in COPD	
(a) Montelukast	
(b) Roflumilast	
(c) Cromoglicate	
(d) Omalizumab	
91. Which of the following is an antidote for organo	ophosphorus poisoning?
(a) Pralidoxime	
(b) Naloxone	
(c) Physostigmine	
(d) Sodium thiosulfate	
92. Which of the following is a Proliferator-Activat	ed Receptor-Alpha (PPAR-) agonist?
(a) Sulfonylurea	
(b) Metformin	
(c) Acarbose	
(d) Pioglitazone	
93. Bambuterol is a prodrug of	
(a) Salmeterol	
(b) Terbutaline	

- (c) Albuterol
- (d) Theophylline

#### 94. Anticonvulsant drug used as a selective molecular target

- (a) Vigabatrin
- (b) Gabapentin
- (c) Lamotrigine
- (d) Tiagabine

#### 95. Common name of convective transport

- (a) Endocytosis
- (b) Active transport
- (c) Passive transport
- (d) Pore transport

# 96. After which phase of clinical trials do pharmaceutical companies submit a New Drug Application (NDA) to the regulatory authority?

- (a) Phase I
- (b) Phase II
- (c) Phase III
- (d) Phase IV

#### 97. Match the following:

I. Alpha () cells [P] Glucagon

II. Beta () cells [Q] Somatostatin

III. Delta () cells [R] Gastrin

IV. G cells [S] Proinsulin

(a) (I)-(P), (II)-(S), (III)-(Q), (IV)-(R)

(b) (I)-(Q), (II)-(S), (III)-(P), (IV)-(R)

(c) (I)-(R), (II)-(S), (III)-(Q), (IV)-(P)

(d) (I)-(S), (II)-(R), (III)-(Q), (IV)-(P)

# 98. Which of the following drugs, when given with warfarin, induces hepatic CYP450 enzyme?

- (a) Ciprofloxacin
- (b) Metronidazole
- (c) Carbamazepine
- (d) Diltiazem

# 99. Blood concentration ratio of the combination of trimethoprim and sulfamethoxazole after being given in a 1:5 ratio is

- (a) 1:1
- (b) 1:5
- (c) 1:10
- (d) 1:20

#### 100. Furosemide mechanism of action

- (a) Inhibit Na-K-2Cl cotransporter in the ascending limb of Henle
- (b) Inhibit Na-K cotransporter in the collecting duct
- (c) Inhibit Na-2Cl cotransporter in the distal loop of Henle
- (d) Aldosterone antagonist

#### 101. Match the following drugs and their Mechanism of Action (MOA):

DRUGS	MOA
(1) Inhibit arabinosyl transferase	(P) Rifampicin
(2) Inhibit folate synthase	(Q) Bedaquiline
(3) Inhibits DNA-dependent RNA polymerase	(R) Ethambutol
(4) Inhibit mycobacterial ATP synthase	(S) Para-Aminosalicylic acid

- (a) (1)-(R), (2)-(S), (3)-(P), (4)-(Q)
- (b) (1)-(Q), (2)-(S), (3)-(P), (4)-(R)

- (c) (1)-(R), (2)-(Q), (3)-(P), (4)-(S)
- (d) (1)-(Q), (2)-(R), (3)-(S), (4)-(P)

#### 102. Match the following Class and their Antiarrhythmic Drug:

CLASS	DRUGS
(1) Class I	(P) Disopyramide
(2) Class II	(Q) Metoprolol
(3) Class III	(R) Amiodarone
(4) Class IV	(S) Verapamil

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

# 103. Which effect is associated with amphotericin B?

- (a) Hyponatremia
- (b) Hypokalemia
- (c) Hypermagnesemia
- (d) Hypercalcemia

# 104. Which of the following drugs used to treat influenza targets an enzyme?

- (a) DNA polymerase
- (b) Reverse transcriptase
- (c) Neuraminidase
- (d) Protease

## 105. Choose the correct match of laxative and its Mechanism of Action (MOA):

LAXATIVE	MOA
(1) Senna	(P) Osmotic purgative
(2) Lactulose	(Q) Stimulant laxative
(3) Lubiprostone	(R) Fecal softening
(4) Prucalopride	(S) 5-HT₄ agonist

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

#### 106. BPALM combination drug names include moxifloxacin

- (a) Bedaquiline, pyrazinamide, linezolid, moxifloxacin
- (b) Bedaquiline, Pretomanid, linezolid, montelukast
- (c) Bedaquiline, Pretomanid, linezolid, moxifloxacin
- (d) Bedaquiline, pyrazinamide, levofloxacin, moxifloxacin

#### 107. Mirabegron is used in the management of overactive bladder

- (a) Beta 2 agonist
- (b) Beta 3 agonist
- (c) M3 antagonist
- (d) Beta 1 agonist

#### 108. Which PDE 4 inhibitor is used in COPD?

- (a) Montelukast
- (b) Theophylline
- (c) Cromoglicate
- (d) Omalizumab

<ul><li>109. 5-HT<sub>2A</sub>/2C antagonist used in migraine</li><li>(a) Methysergide</li><li>(b) Ketanserin</li></ul>			
			(c) Sumatriptan
			(d) Rizatriptan
110. If 50% of women who are diagnosed with venous thrombosis are found to be			
taking oral contraceptives compared to those without thrombosis, which type of study			
is this?			
(a) Cohort			
(b) Case Study			
(c) Cross-Sectional			
(d) ANOVA			
111. pH of Jejunum			
(a) 6.8±4			
(b) 1±4			
(c) 3±8			
(d) 5±1			
112. GnRH agonist EXCEPT			
(a) Goserelin			
(b) Gani			
(c) triptorelin			
(d) buserlin			

# 113. Which of the following are responsible for a rightward shift in the oxygen-hemoglobin dissociation curve?

- (a) Lower PO<sub>2</sub>
- (b) Higher H<sup>+</sup>

- (c) Higher pCO<sub>2</sub>
- (d) Both (b) and (c)

# 114. Match the following Class and their Drug:

- (1) Alkylating
- (2) Platinum analog
- (3) Antimetabolite
- (4) EGF receptor inhibitor
- (P) 5-fluorouracil
- (Q) Cisplatin
- (R) Cetuximab
- (S) Chlorambucil
- (a) (1)-(P), (2)-(S), (3)-(Q), (4)-(R)
- (b) (1)-(Q), (2)-(R), (3)-(S), (4)-(P)
- (c) (1)-(S), (2)-(Q), (3)-(P), (4)-(R)
- (d) (1)-(Q), (2)-(R), (3)-(P), (4)-(S)

## 115. Which of the following nasal decongestants is an $\alpha_2$ agonist?

- (a) Oxymetazoline
- (b) Terbutaline
- (c) Salbutamol
- (d) Methotrexate