

# THE UNIVERSITY OF



Department of Pharmacy Mphil Pharmaceutics

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Programs Offe	red by the Department of Pharmacy
Degree Name	Degree Details/Eligibility Criteria
M. Phil Pharmaceutics	Department of Pharmacy will allow admission in M. Phil Pharmaceutics to the students having graduation degree in Pharmacy with 2.5 CGPA / 2nd division as a basic minimum criterion for admission. Most universities require a minimum of 2.5/4.0 CGPA (or equivalent 60% marks in annual system). With exactly 2.5 CGPA, you meet the minimum threshold, but competition can be tough. Higher
	CGPA may increase your chances. Degree must be recognized by HEC (Higher Education Commission of Pakistan) and PCP (Pharmacy Council of Pakistan).



1. Disintegration time for un-coated tablet is
A. NMT 10 mins
B. NMT 15mins
C. NMT 20 mins
D. NMT 25 mins
2. Frequency of basket rack assembly during disintegration test is
A. 30 cycles/min
B. 28-32 cycles/min
C. $30 \pm 2$ cycles/min
D. Both b & c
3. Hardness of tablet is measure by
A. Pfizer's Hardness tester
B. Strong Cobb
C. Eruweka Hardness tester
D. All the above
4. The Bacterial Endotoxins Test is an test based on the formation of a gel in the presence of
bacterial endotoxins.
A. In-vitro
B. In-vivo
C. Ex-vivo
D. Both a & b
<b>5</b> . For the ampoules Container/Closure integrity test which of the following solution is employed?
A. 1% methylene blue
B. 1% scarlet green
C. 1% erythrosine
D. all of these
6. BET stands for
A. Bacterial Endotoxins Test
B. Bacterial Exotoxins Test

C. Biological Endotoxins Test



- D. Bacterial Enteric Test
- 7. A rectal suppository is used to treat fever. This would represent what type of drug delivery
  - A. Parenteral and local
  - B. Enteral and local
  - C. Parenteral and systemic
  - D. Enteral and systemic
- **8**. The mesh size of USP Disintegrator is
  - A. 4-6
  - B. 28-32
  - C. 6-8
  - D. 10
- **9**. Type A gelatin is usually manufactured from
  - A. Animal bone
  - B. calf skin
  - C. Pork skin
  - D. None of these
- 10. Acceptable limit for mechanical strength test is
  - A. 1.6 to 1kg
  - B. 1.8 to 2kg
  - C. 1.7 to 2kg
  - D. All of these
- 11. Softening test is specific for
  - A. Urethral suppository
  - B. rectal suppository
  - C. Vaginal suppository
  - D. All of these
- 12. Thermosensitive preparations are sterilized by
  - A. Filtration
  - B. radiation
  - C. Ethylene oxide



- D. All of these
- 13. Retrieval of drug is difficult in case of toxicity, poisoning or hypersensitivity reaction
  - A. For sustain release dosage forms
  - B. For prolong release dosage forms
  - C. For controlled release dosage forms
  - D. All of these
- 14. How many types of materials are used to formulate microcapsules?
  - A. 3 types
  - B. 4 types
  - C. 2 types
  - D. 5 types
- 15. Rotary disc atomization is
  - A. Physical method of microencapsulation
  - B. Physicochemical method
  - C. Chemical method of microencapsulation
  - D. Both a & c
- 16. Water soluble resins includes
  - A. Ethyl cellulose
  - B. Polyethylene
  - C. Cellulose nitrate
  - D. All of these
- 17. The size of granules may range from
  - A. 0.1 to 4.00 mm in diameter
  - B. 0.3 to 4.00 mm in diameter
  - C. 0.2 to 4.00 mm in diameter
  - D. All of these
- 18. Multiple emulsion solvent evaporation techniques are used to encapsulate
  - A. Protein
  - B. Nucleic acid
  - C. Peptides

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D.	$\Delta$ II	OI II	について

- **19**. The two reactants or monomers undergo polycondensation in which type of microencapsulation technique.
  - A. Interfacial polymerize
  - B. Co-acervation
  - C. In-situ polymerization
  - D. Matrix polymerization
- 20. Sodium alginate and calcium chloride are used in which type of microencapsulation
  - A. Polymerization method
  - B. Co-acervation
  - C. Spray drying
  - D. Solvent evaporation
- 21. The fundamental considerations for the formulation of microcapsules include
  - A. Core materials
  - B. Vehicle
  - C. Coating materials
  - D. All of these
- 22. Microencapsulation technique classified physically are
  - A. Polymerization
  - B. Solvent evaporation
  - C. Air suspension
  - D. Both a & b
- 23. Council means a Pharmacy Council established under section
  - A. 3
  - B. 1
  - C. 4
  - D. 2
- **24**. `Medical Institution' means an institution whose medical qualifications are recognized under the Medical Council Ordinance:
  - A. 1962



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B. 196	53
C. 197	<i>'</i> 3
D. 196	55
25. Pharma	acist' means a person who is registered under section 24
A. Reg	gist
B. Reg	gister
C. Reg	gister
D. A, 1	b, and C
<b>26</b> . Persons	s to be nominated by the Provincial Government, of whom one shall be an officer of
that Govern	nment.
A. 6	
B. 8	
C. 5	
D. 7	
27. Pakista	an Pharmacists Association' means the association registered under the Societies
Registratio	n Act
A. 196	33
B. 186	50
C. 196	50
D. 192	0.0
28. Registe	er C - in which shall be registered the:
A. App	prentices in pharmacy
B. Pha	armacist
	rmacy Technician
D. b aı	
	pector of Drugs and a government Analyst appointed under the Drugs Act
A. 193	
B. 196	
C. 194	
D. 197	'6



30. A person who is a qualified person within the meaning of rule of the West Pakistan			
Drugs Rules 1958, if not otherwise eligible for registration			
A. 65			
B. 66			
C. 67			
D. 68			
31. The meeting of council shell be summoned and conducted in such manners as may be laid			
down by its			
A. President			
B. Vice-president			
C. By-laws			
D. Members			
32. The person to whom the warrant is directed may enter and search the place in accordance			
therewith, and the provisions of			
A. Code of Criminal Procedure, 1888			
B. Code of Criminal Procedure, 1876			
C. Code of Criminal Procedure, 1878			
D. Code of Criminal Procedure, 1898			
33. No suit, prosecution or other legal proceedings shall lie against any person for anything which			
is in good faith done or intended to be done under this Act is:			
A. Cognizance of offences			
B. Indemnity			
C. Power to make bye laws			
D. All			
34. Power to regulate the possession of any poison in certain areas is under the control of			
A. Federal government			
B. Provincial government			
C. District magistrate			
D. Both a and b			



<b>35</b> .	In which of the following models the body is considered to be composed of severa			
compartments?				
	A. Compartment model			
	3. Physiological model			
	C. Human model			
	D. Non-compartment model			
36.	n model, the peripheral compartment is connected to the central compartment.			
	A. Caternary model			
	3. Physiological model			
	C. Mammillary model			
	D. Compartment model			
<b>37</b> .	The size of granules may range from			
	A. 0.1 to 4.00 mm in diameter			
	3. 0.3 to 4.00 mm in diameter			
	C. 0.2 to 4.00 mm in diameter			
	D. All of these			
38.	what does the word "open" mean in the one-compartment open model?			
	A. The drug easily enters			
	3. The drug readily mixes with the blood			
	C. Unidirectional input and output			
	D. Easy absorption			
<b>39</b> .	The extent of distribution is "partially" determined by the of the drug.			
	A. Blood flow			
	3. Physical-chemical properties			
	C. Hydrophilicity			
	D. None of these			
<b>40</b> .	which one is the central compartment among the following in the two-compartment model?			
	A. Skin			
	B. Muscles			
	C. Adipose tissues			



	D.	Kidney
41.	all	are lipophilic molecules, except?
	A.	Benzodiazepines
	B.	Phenytoin
	C.	Aminoglycosides
	D.	Griseofulvin
42.	in 1	pharmacokinetic/ compartment models, the term "compartments" means?
	A.	Plasma/ blood
	B.	Extracellular fluids
	C.	Individual organ
	D.	A hypothetical pool of tissue
43.	hov	w many rates constant is obtained when a drug is administered extra-vascularly and followed
two	о со	ompartment open model?
	A.	1
	B.	2
	C.	3
	D.	4
44.	Wł	hat is the prime constant among the following?
	A.	K12
	B.	K21
	C.	K10
	D.	Ke
45.	the	cultra-fast disposition drugs have half-life of?
	A.	1 hr
	B.	< 1 hr
	C.	> 1 hr
	D.	1-2 hr
<b>46</b> .	an	increase in the volume of distribution also increases?
	A.	Elimination half-life
	B.	Biological half-life



C. Absorption half-life D. Both a & b **47**. Which of the following is not needed for investigational new drug application? A. Animal pharmacology and toxicology B. Manufacturing information C. Clinical protocol and investigator information D. Phase III trial data **48**. I123 is used for? A. Diagnostic purpose B. Therapeutic purpose C. Palliative care D. All of the these 49. At specified temperature maximum amount of solute that can dissolve in an amount of solvent is known as. A. Solubility B. Dissolution C. Diffusion D. capacity **50**. Indium111 is used for? A. Diagnostic purpose B. Therapeutic purpose C. Palliative care D. All of these **51**. The ratio of void volume to bulk volume is known as A. Porosity B. Tapped density C. Bulk density D. None of these 52. Hausner's ratio is,

A. Bulk density/ tapped density



- B. Bulk volume/ void volume
- C. Tapped density/ bulk density
- D. Void volume/ bulk volume
- **53.** Which of the following tablet are formulated to prevent drug release in stomach?
  - A. Chewable tablet
  - B. Enteric coated tablet
  - C. Film coated tablet
  - D. Sugar coated tablet
- 54. In which phase of the clinical trial, the written patient consent form is required?
  - A. Phase I
  - B. Phase II
  - C. Phase III
  - D. Both phase I and phase II
- **55**. Xenon133 is used for?
  - A. Bone imaging
  - B. Lung imaging
  - C. Prostate cancer
  - D. Lung cancer treatment
- **56**. Strontium89 is used for?
  - A. Diagnostic purpose
  - B. Therapeutic purpose
  - C. Palliative care
  - D. Both b and c
- 57. The name and concentration of any added antimicrobial preservative should be labelled?
  - A. Direct container
  - B. Outer package
  - C. Outer packaging
  - D. Both b and c
- **58**. Which radiopharmaceutical is used for measuring glomerular filtration rate?
  - A. Cr-EDTA



	В.	Co-EDTA
	C.	TC-methylene diphosphonate (MDP)
	D.	All of these
<b>59</b> .	Va	ccines provide immunity to the host.
	A.	Active
	B.	Passive
	C.	Acquired
	D.	None
<b>60</b> .	Wł	nich of the following vaccines is used to prevent tuberculosis?
	A.	BCG
	B.	DPT
	C.	Vaccinia
	D.	HCG
61.	Во	oster dose is required for
	A.	Live vaccine
	B.	Killed vaccine
	C.	Toxoid vaccine
	D.	Conjugate vaccine
<b>62</b> .		is used as a test animal in the bioassay of digitalis.
	A.	Guinea pig
	B.	Rabbit
	C.	Rat
	D.	None of these
<b>63</b> .	In	case of hole technique, the hole of about in diameter is made using a borer.
	A.	4-5mm
	B.	6-8mm
	C.	5-8mm
	D.	4-8mm
<b>64</b> .	In	the case of nystatin the Petri-dishes are filled to a depth of with nutrient agar
me	dia.	



	A.	3-4mm
	В.	2-3mm
	C.	1-2mm
	D.	2-4mm
65.	In	the case of the turbimetric method, media is used.
	A.	Semisolid media
	B.	Liquid media
	C.	Solid media
	D.	All of these
66.	. Th	e injection of a standard preparation of digitalis is injected into of the Guinea pig:
	A.	Alar vein
	B.	Jugular vein
	C.	Marginal vein
	D.	None of these
<b>67</b> .	. Th	ne standard preparation of vitamin-D is the international standard, established
in_		<u> </u>
	A.	1st, 1948
	B.	1st, 1949
	C.	2nd, 1947
	D.	2nd, 1949
68.	Zo	ne of inhibition is observed in method.
	A.	Diffusion method
	B.	Turbidimetric method
	C.	Both
	D.	None of these
69.	. Wł	nich form of cetirizine is more potent?
	A.	D-form
	B.	L-form
	C.	Both are equally potent
	D.	None



<b>70</b> .	Bio	o-assay is more reliable in sense of?
	A.	In-vivo activity
	B.	In-vitro activity
	C.	Ex-vivo activity
	D.	All of these
<b>71</b> .	Mi	ce are used as test animal in bio-assay of?
	A.	Insulin
	B.	Digitalis
	C.	Vitamin-D
	D.	Antibiotics
<b>72</b> .	Wł	nich of the following is the more accurate method for microbial assay of antibiotics?
	A.	Physical assay
	B.	Chemical assay
	C.	Bioassay
	D.	Chemical and bioassay
<b>73</b> .	Но	w many pigeons are required for bioassay of digitalis?
	A.	10
	B.	12
	C.	14
	D.	16
<b>74</b> .	Ra	bies vaccines are the example of?
	A.	Live vaccine
	B.	Killed vaccine
	C.	Sub-unit vaccine
	D.	Conjugate vaccine
<b>75</b> .	Wł	nich drug is composed of complex substances (mixture) of varying structure and activity?
	A.	Vitamin-D
	B.	Digitalis
	C.	Insulin
	D.	All of these



<b>76</b> .	Th	ne standard preparation of vitamin-D is the international standard, established
in_		·
	A.	1st, 1948
	B.	2nt, 1949
	C.	2nd, 1947
	D.	3rd, 1949
77.	In	the manufacture of toxoid vaccines, the toxin is separated and treated chemically using
		?
	A.	Methyl parabens
	B.	Formaldehyde
	C.	Acetaldehyde
	D.	Acetone
<b>78</b> .	In	case of insulin, 1mg contains units of insulin?
	A.	22
	B.	24
	C.	26
	D.	28
<b>79</b> .	Sil	ica is combined with to increase hardness and durability in the glass.
	A.	Boron
	B.	Alumina
	C.	MgCO3
	D.	Sodium
<b>80</b> .	Th	e main component of glass is:
	A.	Silica
	B.	Na2CO3
	C.	MgO
	D.	All of these
<b>81</b> .	Wl	hich culture media is used for fungi?
	A.	Fluid thioglycolate media
	B.	SCD media



	C.	Nutrient agar media
	D.	All of these
<b>82</b> .	Wa	ter-soluble bases are also known as:
	A.	Greasy ointment bases
	B.	Greaseless ointment bases
	C.	Both
	D.	None
83.	The	e glass surface is subject to corrosion due to the presence of
	A.	Magnesium
	B.	Sodium
	C.	Calcium
	D.	Silica
84.	Wa	tter attack test is used to identify alkalinity in:
	A.	Type-I glass
	B.	Type-II glass
	C.	Type-III glass
	D.	All the above
<b>85</b> .	Bo	rosilicate glass consists of silica?
	A.	73%
	B.	81%
	C.	90%
	D.	80%
<b>86</b> .	Sar	mple size required for metal particle test for ointment is.
	A.	20
	B.	15
	C.	10
	D.	30
<b>87</b> .	In	membrane filtration method, 20-25°C incubation temperature is required for?
	A.	Fungi
	B.	Aerobic bacteria



	C.	Anaerobic bacteria
	D.	Both a & b
88.	Un	it of spreadability is:
	A.	mg.mm/sec
	B.	gm.cm/sec
	C.	mg.cm/min
	D.	gm.mm/sec
<b>89</b> .	Off	ficial limit for general purpose soda lime glass is:
	A.	0.7 ml
	B.	15 ml
	C.	0.9 ml
	D.	8.5 ml
<b>90</b> .	Lip	osomes were first produced in England in 1961 by?
	A.	Allan Maxam
	B.	Walter Gilbert
	C.	Alec D. Bangham
	D.	Paul Ehrlich
91.	wh	y tragacanth is not used as binder because it
	A.	Harden on storage
	B.	Require in large amount
	C.	Incompatible with most of the drugs
	D.	Suitable in warm condition
<b>92</b> .	adł	nesion of tablet material to die wall is known as?
	A.	Picking
	B.	Sticking
	C.	Capping
	D.	Lamination
93.	to a	asses the resistance of tablet to abrasion, the test performed is known as?
	A.	Hardness test
	B.	Disintegration test



	C.	Friability test
	D.	None
94.	Int	tablet defect picking means
	A.	Coloring distribution is not proper
	B.	Partial or complete removal of top or bottom of tablet
	C.	Adhesion of tablet material to side of die
	D.	Two distinct layers on tablet
<b>95</b> .	gel	atin is used as?
	A.	Encapsulating agent
	B.	Viscosity enhancing agent
	C.	Tablet glidant
	D.	Antimicrobial agent
96.	wa	ter for injection differ from sterile water for injection because it is free from
	A.	Carbon dioxide
	B.	Pyrogen
	C.	Preservatives
	D.	Anti-oxidant
<b>97</b> .	wh	ich one of the following drying methods is used in pharma industry for drying of soft gelatin
cap	sule	e?
	A.	Vacuum drying
	B.	Fluid bed drying
	C.	Microwaves
	D.	Tray drying
<b>98</b> .	sw	eetening agent commonly used in chewable tablet formulas?
	A.	Sucrose
	B.	Mannitol
	C.	Saccharine
	D.	Cyclamate sodium
<b>99</b> .	No	n-uniformity during uneven color distribution in tablet surface is called?
	A.	Orange peel effect



- B. Mottling
- C. Pitting
- D. Blistering

100. which of the following defect is due to highly viscous coating solution?

- A. Lamination
- B. Orange peel
- C. Cracking
- D. Blushing

