



Maharaja Ranjit Singh Punjab Technical University

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(Estb. by Govt. of Punjab vide Act No. 5 [2015] and u/s 2(f) and 12 B of UGC Act, 1956)

ਮਹਾਰਾਜਾ ਰਣਜੀਤ ਸਿੰਘ ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ, ਡੱਬਵਾਲੀ ਰੋਡ, ਬਠਿੰਡਾ।

No.Uni/Estb/3695

Date: 30/12/22

NOTICE

The Question Paper and Answer Key w.r.t exam conducted on dated 27.12.2022 for the post of Assistant Professor, Pharmaceutical Sciences & Technology has been uploaded on the official website of the University. In case of doubt/Objection regarding any question or answer, the same may be forwarded (along with supporting documents) within 03 days (i.e. upto 02.01.2023) via e-mail dy.reg@mrsptu.ac.in

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Registrar

CC:

1. P.A. to Vice Chancellor, MRSPTU, Bathinda for the kind information to Hon'ble Vice Chancellor.
2. Professor incharge, IT Enabled Services, MRSPTU, Bathinda for uploading the same on the University website.

Pharm.

Multiple Choice Question Paper (MCQ)
Number of Questions: 60 & each question carries 1 mark

1. Some drugs containing an ester group are inactive in vitro, but are active once the drug has been absorbed in vivo. What term is used for such drugs?
a. Prodrugs b. Psotdrugs c. Metabolites d. Predrugs
2. The branch of pharmaceutical chemistry which deals with the estimation of drugs in the dosage forms:
a. Physical chemistry
b. Analytical chemistry
c. Inorganic chemistry
d. Medicinal chemistry
3. Which is the official governing regulatory body of pharma industries in India?
a. CDSCO b. DCGI c. FDA d. All of them.
4. Identify the correct non-flammable propellant:
a. Dichloro monofluoro methane
b. Trichloro mono fluoro methane
c. Di methyl ether
d. Di fluoro methane
5. The identification of propellants in pharmaceutical aerosols is carried out by:
(P) Gas chromatography; (R) Pycnometer; (Q) Tag open cup apparatus; (S) IR spectrophotometer
a. P, Q b. P, S c. Q, R d. R, S
6. Which of the following statement is incorrect?
a. Under no circumstances may the graduated flask be heated
b. Precision does not assure accuracy
c. Use of internal standards may minimize errors
d. The solvent used to wash precipitates can have solvent action on the precipitate
7. Mixture of camphor and salt can be separated by:
a. Magnetic separation
b. Sublimation
c. Liquefaction
d. Sieving
8. _____ mg of KMnO_4 must be dissolved to give 100 ml of solution so that the resulting solution is 1 in 4000:
a. 25 b. 40
c. 250 d. 400
9. Number of stereoisomers of glucose is:
a. 4 b. 8
c. 16 d. 20
10. Which of the following act as a self-indicator?
a. Salicylic acid
b. Potassium permanganate
c. Oxalic acid
d. All of the above
11. 1,3-position with six member heterocyclic contain two nitrogen atom is called
a. Pyrimidine
b. Pyridine
c. Pyrazine
d. Pyridazine

12. Which of the following depicts the absolute stereochemistry of the chiral molecules?
a. l, d or (\pm) b. L, D c. R, S d. E, Z
13. Indian Pharmacopoeia is the official publication of:
a. Pharmacy Council of India
b. Drug Controller of India
c. Health Ministry of India
d. Indian Pharmaceutical Congress
14. All statements are correct for SN-1 Reaction, except
a. Follows first-order kinetic
b. Rearrangement is possible
c. Inversion of configuration takes place
d. Two-step reaction
15. How would you represent the calculation $168.11 + 7.045 + 0.6832 = ?$
a. 175.8382
b. 175.838
c. 175.84
d. 175.8
16. The ophthalmic solution is sterilized by:
a. Autoclave
b. Hot air oven
c. Membrane filter
d. Bacterial filters
17. In general, lesser the value of angle of repose, _____ are the powder flow properties:
a. Good
b. Poor
c. Intermediate
d. Superior
18. Lassaigne's extract is used to detect:
a. Nitrogen
b. Sodium
c. Aluminium
d. Carbon
19. Which of the following is not aromatic?
a. Cyclopentadiene anion
b. Cyclopentadiene
c. Anthracene
d. Naphthalene
20. Ferric ions form coloured compounds with:
a. Phenol
b. Salicylic acid
c. Aspirin
d. All of these
21. Which from is more stable in confirmation of n-butane ?
a. Skew staggered
b. Skew eclipsed
c. Totally staggered (anti)
d. Fully eclipsed

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22. Addition of which substance increases the thermal resistance of glass?
- Lead oxide
 - Calcium carbonate
 - Sodium borate
 - Alumina
23. Geometric dilution method for mixing starts with:
- Ingredient with lowest mass
 - Ingredient with lowest volume
 - Ingredient with highest mass
 - Ingredient with highest volume
24. Lactose is not preferred tablet diluent for the drugs containing _____ group:
- Carboxylic acid
 - Alcohol
 - Amine
 - Esters
25. What is the correct IUPAC nomenclature for 'penicillin G'?
- (2S,5R,6R)-3,3-dimethyl-7-oxo-6-[(2-phenylacetyl)amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-ethanol.
 - (2S,5R,6R)-3,3-dimethyl-7-oxo-6-[(2-phenylacetyl)amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid.
 - (2S,5R,6R)-3,3-dimethyl-7-oxo-6-[(2-phenylacetyl)amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-sulphonic acid.
 - (2S,5R,6R)-3,3-dimethyl-7-oxo-6-[(2-phenylacetyl)amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-acetyl chloride
26. The viscosity of gelatin can range from
- 25 to 45 milli-poise
 - 30 to 50 milli-poise
 - 30 to 50 poise
 - 25 to 45 poise
27. Following statement is true for lotion except;
- Aqueous/alcoholic solution/suspension in aqueous media
 - Applied with fraction
 - Applied on broken skin
 - None of the above
28. An elixir contain 38% v/v alcohol, what is proof spirit according to USP,
- 76%
 - 70%
 - 66.61%
 - 64.35%
29. Which of the following is used as suspending agent in parenteral?
- Gelatin
 - Pectin
 - Both A. and B.
 - None of the above
30. In Clerk's formula, weight is mentioned as
- Pound
 - Gram
 - Kilogram
 - Grain

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31. Deficiency of which vitamin leads to haemorrhagic disease:
a. A b. C
c. K d. E
32. Who is regarded as father of medicine?
a. Paracelsus
b. Aristotle
c. Galen
d. Hippocrates
33. Which of the following is stress regulatory phytohormone?
a. Cortisol
b. Prolactin
c. Cytokinin
d. Serotonin
34. Volatile oils are also known as
a. Fixed oils
b. Essential oils
c. Mineral oils
d. Vegetable oil
35. The discipline which deals with the effect of the drug on the body is:
a. Pharmaceutics
b. Pharmacokinetics
c. Pharmacodynamics
d. Toxicokinetics
36. Which portion of heart receives oxygenated blood?
a. Left auricle
b. Right auricle
c. Left ventricle
d. Left ventricle
37. Amylose is ___ chain component, whereas amylopectin is ___ chain component of starch:
a. Branched, straight
b. Straight, branched
c. Both straight
d. Both branched
38. Which of the following is a Holocrine gland?
a. Salivary
b. Sebaceous
c. Sweat
d. All of the above
39. The plant part selected for tissue culture is surface sterilized by:
a. Sodium hypochlorite
b. Bromine water
c. Hydrogen peroxide
d. Any of these
40. Burnt sugar is also called _____ and is used as coloring agent:
a. Dextrins
b. Dextrans
c. Caramel
d. Echinacea

Pharm

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41. Indian Pharmacopoeia is the official publication of:
- Pharmacy Council of India
 - Drug Controller of India
 - Health Ministry of India
 - Indian Pharmaceutical Congress
42. Which of the following is not an OTC drug/formulation?
- Paracetamol
 - Dettol
 - Amoxicillin
 - Lysol
43. Prescription drugs fall under the category of:
- Schedule H
 - Schedule X
 - Schedule O
 - Both a & b
44. What will happen to starch-iodine complex when it is heated?
- Violet colour will darken
 - Violet colour will disappear
 - No effect
 - Violet colour turns yellow
45. Lycopodium spore method is used for
- Powdered drugs having well-defined particle size
 - Single layered cells or tissues
 - The objects of uniform thickness
 - All of the above
46. In protoplast culture protoplasm is isolated by using
- Cellulase
 - Macerozyme
 - Both
 - None
47. Stellate trichomes are present in
- Humulus
 - Pyrethrum
 - Hammaelis
 - Calendula officinalis
48. Which of the following is not a micronutrient?
- Copper
 - Zinc
 - Molybdenum
 - Hydrogen
49. All are true about leaflets, except
- Bud or branch is absent in leaflets
 - Leaflets are arranged in pairs
 - Leaflets are asymmetric at the bases
 - Examples include rose, neem, digitise and senna etc.
50. The callus is
- Differentiated cell mass
 - Biomass
 - Isolated roots
 - Undifferentiated cell mass
51. For the formation of shoot which ratio of plant growth regulators is required ?
- Auxin:cytokinin (1:4)
 - Auxin:cytokinin (4:1)
 - Auxin:cytokinin (100:1)
 - Auxin:cytokinin (1:100)

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52. Iodine value for oils and fats is measured as
- Iodine present in oils
 - Extent of unsaturation
 - Extent of saturation
 - None of the above
53. An 'orphan drug' is:
- A very cheap drug
 - A drug which has no therapeutic use
 - A drug needed for treatment or prevention of a rare disease
 - A drug which acts on Orphanin receptors
54. Drug administered through the following route is most likely to be subjected to first-pass metabolism:
- Oral
 - Sublingual
 - Subcutaneous
 - Rectal
55. Which of the following drugs is administered by intranasal spray/application for systemic action:
- Phenylephrine
 - Desmopressin
 - Azelastine
 - Beclomethasone dipropionate
56. Alkalinization of urine hastens the excretion of:
- Weakly basic drugs
 - Weakly acidic drugs
 - Strong electrolytes
 - Nonpolar drugs
57. Majority of drugs cross biological membranes primarily by:
- Passive diffusion
 - Facilitated diffusion
 - Active transport
 - Pinocytosis
58. Which of the following is a weakly acidic drug:
- Atropine sulfate
 - Chloroquine phosphate
 - Ephedrine hydrochloride
 - Phenytoin sodium
59. Long-term hydralazine therapy is likely to cause:
- Gynaecomastia
 - Thrombocytopenia
 - Haemolytic anaemia
 - Lupus erythematosus
60. The following antihypertensive combination is irrational, and therefore should not be used:
- Nifedipine + hydralazine
 - Amlodipine + atenolol
 - Enalapril + clonidine
 - Enalapril + hydrochlorothiazide

Pharmacy

Key for 60 MCQs

1	A	16	A	31	C	46	D
2	B	17	A	32	D	47	C
3	B	18	B	33	C	48	C
4	A	19	B	34	B	49	D
5	B	20	D	35	C	50	D
6	A	21	C	36	A	51	B
7	B	22	C	37	B	52	B
8	A	23	B	38	B	53	C
9	C	24	C	39	D	54	A
10	B	25	B	40	C	55	B
11	A	26	A	41	C	56	B
12	C	27	B	42	C	57	A
13	C	28	C	43	D	58	D
14	C	29	C	44	B	59	D
15	C	30	A	45	D	60	A

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