(DO NOT OPEN THIS QUESTION BOOKLET BEFORE TIME OR UNTIL YOU ARE ASKED TO DO SO)

(MPH/PHD/URS–EE–2019)

Pharmaceutical Science

Code **A**

Sr. No. 10009

SET–"X"

Time : 1¼ Hours **Total Questions : 100** **Max. Marks : 100**

Roll No. _____ (in figure) _____ (in words)

Name : _____ Father's Name : _____

Mother's Name : _____ Date of Examination : _____

(Signature of the candidate) (Signature of the Invigilator)

CANDIDATES MUST READ THE FOLLOWING INFORMATION/ INSTRUCTIONS BEFORE STARTING THE QUESTION PAPER.

1. All questions are compulsory.
2. The candidates must return the Question book-let as well as OMR answer-sh to the Invigilator concerned before leaving the Examination Hall, failing whic case of use of unfair-means / misbehaviour will be registered against him / h in addition to lodging of an FIR with the police. Further the answer-shee such a candidate will not be evaluated.
3. Keeping in view the transparency of the examination system, carbonless OMR Sheet is provided to the candidate so that a copy of OMR Sheet may be kept by the candidate.
4. Question Booklet along with answer key of all the A,B,C and D code will be got uploaded on the university website after the conduct of Entrance Examination. In case there is any discrepancy in the Question Booklet/Answer Key, the same may be brought to the notice of the Controller of Examination in writing/through E. Mail within 24 hours of uploading the same on the University Website. Thereafter, no complaint in any case, will be considered.
5. The candidate MUST NOT do any rough work or writing in the OMR Answer-Sheet. Rough work, if any, may be done in the question book-let itself. Answers **MUST NOT** be ticked in the Question book-let.
6. **There will be no negative marking. Each correct answer will be awarded one full mark. Cutting, erasing, overwriting and more than one answer in OMR Answer-Sheet will be treated as incorrect answer.**
7. Use only Black or Blue <u>BALL POINT PEN</u> of good quality in the OMR Answer-Sheet.
8. BEFORE ANSWERING THE QUESTIONS, THE CANDIDATES SHOULD ENSURE THAT THEY HAVE BEEN SUPPLIED CORRECT AND COMPLETE BOOK-LET. COMPLAINTS, IF ANY, REGARDING MISPRINTING ETC. WILL NOT BE ENTERTAINED 30 MINUTES AFTER STARTING OF THE EXAMINATION.

SEAL Confidential Confidential Confidential Confidential

Question No.	Questions
1.	The preferred source of light in colorimeter is (1) Tungsten lamp (2) Hydrogen discharge lamp (3) Mercury arc (4) Deuterium lamp
2.	One of the drugs is an odd one in terms of its biological action (1) Diethyl Stilbestrol (2) Tamoxifen (3) Ethynyl Estradiol (4) Mestranol
3.	One of the following drugs interrupts the synthesis of thyroid hormones by preventing iodine incorporation into the tyrosyl residue of thyroglobulin (1) Levothyroxin (2) Liothyronine (3) Carbimazole (4) Triiodo thyronine
4.	When two substances have same absorbance, then wavelength is called as (1) Isoelectric point (2) Isobestic point (3) Isocratic (4) None of these
5.	In NMR spectroscopy,shielding of protons is characterized by (1) Chemical shift value is less for strongly shielded protons (2) NMR signals appear at lower magnetic field strength (3) Secondary magnetic field reinforce the applied magnetic field (4) All of these
6.	A substance used for modification of silica gel for reversed-phase TLC is (1) Benzene (2) Glycerin (3) Silicon oil (4) Ether

Question No.	Questions
7.	A solution of thermolabile drug can be sterlized by (1) Bacteria proof filtration (2) Moist heat sterilization (3) Gaseous sterilization (4) Dry heat sterilization
8.	As per IP, the disintegration time for enteric coated tablet is (1) 15 min in distilled water (2) 60 min in simulated intestinal fluid (3) 15 min in simulated gastric fluid (4) 120 min in distilled water
9.	As per GMP, the permitted limit of solid contents in water for injection is (1) 100 ppm (2) 10 ppm (3) 1 ppm (4) 0.1 ppm
10.	The number of NMR signal expected for CH_3-CH_2-Cl is (1) 3 (2) 5 (3) 2 (4) 4
11.	Gelatin I.P. should comply with (1) Limit test for chloride (2) Limit test for sulfate (3) Microbial limits (4) Sterility test
12.	A 50 yr old farmer has a 5 year history of frequent, recurrent and very painful kidney stone. Appropriate chronic therapy for this man is (1) Furosemide (2) Hydrochlorthiazide (3) Morphine (4) Prednisolone

Question No.	Questions
13.	Loss of taste sensation is side effect of following antihypertensive drug (1) Clonidine (2) Captopril (3) Verapamil (4) Prazocin
14.	Different species of *Papaver somniferum* as P. bracteatum and P. orientale are being cultivated instead of P. somniferum because they contain (1) More of morphine (2) Less of morphine (3) Only codeine (4) Only thebaine
15.	In chromatographic analysis Rf value range from (1) 1–100 (2) 0 – 1 (3) -1 – + 1 (4) 0 –-10
16.	What is strength of 95% alcohol in terms of proof spirit (1) 166.63% O.P. (2) 66.53% O.P. (3) 66.53% U.P. (4) 166.53% U.P.
17.	Name the mode by which Vitamin D is metabolized (1) Decarboxylation (2) Methylation (3) Transesterification (4) Hydroxylation
18.	Which of the following enzyme is a constituent of BMP shunt ? (1) Glucose-6-Phosphatase (2) Hexokinase (3) Glucose-6-Phosphate dehydrogenase (4) Phosphorylase

Question No.	Questions
19.	The tissue with highest glycogene content is (1) Liver (2) Kidney (3) Muscle (4) Testes
20.	In IR spectrum, the functional group region is from (1) 4000 cm-1 to 900 cm-1 (2) 4000 cm -1 to 1400 cm-1 (3) 1400 cm-1 to 900 cm-1 (4) 4000 cm-1 to 660 cm-1
21.	Intermediates in the biosynthesis of cholesterol are (1) Mevalonic acid and isopentenyl pyrophosphate (2) Mevalonic acid and aldosterone (3) Isoprenaline and aldosterone (4) Isoprenaline and isopentenyl phosphate
22.	The camptothecin present in the plant and useful in treating ovarian cancer is (1) Etoposide (2) Vincristine (3) Paclitaxel (4) Topotecan
23.	Which of the following statement is correct regarding a drug exhibits elimination by zero-order kinetic (1) Biological half-life is constant (2) Both clearance and biological half-life is constant (3) Rate of elimination is constant (4) Clearance is constant.

Question No.	Questions
24.	In the Drugs and Cosmetics Act and Rules, the Schedule relating to clinical trial of drugs is (1) Schedule M (2) Schedule C (3) Schedule Y (4) Schedule H
25.	The role of borax in cold creams is (1) anti-microbial agent (2) to provide fine particles to polish skin (3) in-situ emulsifier (4) antioxidant
26.	Working principle of Ball mill is based on (1) Cutting and Impact (2) Impact and Attrition (3) Impact only (4) Attrition only
27.	Expiry period of drug preparations included in Schedule "P" of the Drugs and Cosmetics Rules 1945, can not exceed (1) 12 months from date of manufacture (2) 24 months from date of manufacture (3) 120 months from date of manufacture (4) 60 months from date of manufacture
28.	Ketone bodies are the metabolic end product of (1) Lipids (2) Proteins (3) Carbohydrate (4) All of these

Question No.	Questions
29.	Indian Pharmacopoeia is published by the (1) Ministry of Health and Family Welfare (2) Pharmacy Council of India (3) Ministry of Human Resources and Development (4) All India Council of Technical Education
30.	A synthetic sweetening agent which is nearly 200 times sweeter than sucrose and has no after taste is (1) Glycerine (2) Saccharin (3) Aspartame (4) Cyclamate
31.	If the product has been substituted wholly or partially by another drug, it is known as (1) Spurious drug (2) Adulterated drug (3) Misbranded drug (4) Poisonous drug
32.	If propanolol is given to patient taking oral hypoglycermic agent for diabetes, it may cause (1) Fatal hypoglycemia (2) No interaction (3) Tachycardia (4) Headache
33.	Proton pump inhibitors like omeprazole and lansoprazole contain the following ring system (1) Pyrimidine (2) Benzimidazole (3) Benzothiazole (4) Oxindole

Question No.	Questions
34.	Artemisinin contains the following group in its structure (1) an endoperoxide (2) an exoperoxide (3) an epoxide (4) an acid hydrazide
35.	Mohr's method of end point determination involves (1) Determination of chlorides with the formation of AgC*l* (2) Determination of flourides with the formation of AgF (3) Determination of chlorides with the formation of NaC*l* (4) Determination of halides with the formation of AgC*l*
36.	All of the following drugs are inhaled glucocorticoids EXCEPT (1) Fluticasone (2) Beclometazone (3) Sodium cromoglycate (4) Budesonide
37.	Indicate the drug belonging to proton pump inhibitors (1) Pirenzepine (2) Ranitidine (3) Pentoprazole (4) Trimethaphan
38.	All of these drugs are antiplatelet agents EXCEPT (1) Aspirin (2) Urokinase (3) Ticlopidine (4) Clopidogrel
39.	This drug is a Class IA antiarrhythmic drug (1) Sotalol (2) Propranolol (3) Verapamil (4) Quinidine

Question No.	Questions
40.	Which of the following drugs is a reversible nonselective alfa, beta antagonist (1) Labetalol (2) Phentolamine (3) Metoprolol (4) Propranolol
41.	The end point detector used in Volhard's method is (1) Ammonium ferric sulphate solution (2) Silver nitrate solution (3) Nitrobenzene (4) Potassium thiocynate solution
42.	Find volume of 95% alcohol required to prepare 600 ml of 70% alcohol (1) 157.90 ml (2) 442.10 ml (3) 542.90 ml (4) 257.90 ml
43.	Under D & C Act 1945 regulation of pharmaceutical documentation is specified in (1) Schedule U (2) Schedule M (3) Schedule L (4) Schedule S
44.	The formation of eutectic mixture is prevented by addition of (1) Kaolin (2) Light magnesium carbonate (3) Citric acid (4) Glycerol
45.	Primary, secondary and tertiary amine can be differentiated by (1) Reaction with Benedict's reagent (2) Reaction with nitrous acid (3) Victor Meyer's method (4) Zeisel's method

Question No.	Questions
46.	Which of the following alkaloid is an antihypertensive (1) Ephedrine (2) Proserpine (3) Vincristine (4) Quinine
47.	Differential staining of bacterial spores is related to (1) Albert's staining (2) Lugol's staining (3) Moller's staining (4) Indian ink preparation
48.	The number of vittae in cremocarp of fennel is (1) 5 (2) 2 (3) 6 (4) 9
49.	Turpentine liniment does not contain (1) Camphor (2) Soft soap (3) Hard soap (4) Turpentine oil
50.	Iodine vapours for TLC are used to detect the (1) Carboxylic acid (2) Steroids (3) Unsaturated compounds (4) Saturated compounds
51.	Karl Fisher reagent used in aquametry is a solution of (1) Bromine and potassium permanganate (2) Sodium thiosulphate and iodine (3) Sodium nitrate and HCl (4) Iodine and sulfur dioxide in pyridine and methanol

Question No.	Questions
52.	The leaves of digitalis purpurea are dried immediately after collection (1) Below 1000C (2) Below 600C (3) Below 250 C (4) At 100C
53.	Emetine an alkaloid of ipecacuanha act as (1) Cough suppressant (2) Bronchodilator (3) Amoebicidal (4) Antimalarial
54.	Which of the following is responsible for the yellow colour of turmeric (1) Camphene (2) Curcumin (3) Zinbiberene (4) α-phellandrene
55.	Cocaine abused/addicted are identified by (1) Yellow coloured urine (2) Yellowish-green coloration of skin (3) Blackened of tongue and gums (4) Their urine turns dark brown on exposure to air
56.	Which of the following antibiotics is not an aminoglycoside (1) Gentamycin (2) Streptomycin (3) Clindamycin (4) Neomycin
57.	Aminoglycosides have the following unwanted effects (1) Pancytopenia (2) Hepatotoxicity (3) Ototoxicity, nephrotoxicity (4) Irritation of gastrointestinal mucosa

Question No.	Questions
58.	Class of tacrolimus is (1) Immunoglobulins (2) Immunosuppressive agents (3) Interferons (4) Monoclonal antibodies
59.	The drug acts by competitively blocking the Na+/K+/2C*l*- contransporter (1) Loop diuretics (2) Thiazide diuretics (3) Potassium-sparing diuretics (4) Carbonic anhydrase inhibitors
60.	This drug is a non-peptide angiotensin AT-1receptor antagonist (1) Clonidine (2) Captopril (3) Telmisartan (4) Diazoxide
61.	Which of the given ophthalmic product is sterilized by radiations (1) Solution (2) Ointment (3) Suspension (4) All of these
62.	Microscopic characters of ginger rhizome are (1) Spindle shaped lignified fibres and sclereids (2) Cluster crytals of calcium oxalate and sclereids (3) Non-lignified vessels and sac shaped starch grains (4) Non-lignified fibres and sclereids

Question No.	Questions
63.	Gingkgo biloba is used for its (1) Expectorant activity (2) Lipid lowering activity (3) PAF antagonistic activity (4) Antidepressant activity
64.	Improvement of memory in Alzheimer's disease is brought about by drugs which increase transmission in (1) cholinergic receptors (2) dopaminergic receptors (3) GABA ergic receptors (4) adrenergic receptors
65.	An isosteric replacement for carboxylic acid group is (1) pyrrole (2) isoxazole (3) phenol (4) tetrazole
66.	X-ray crystallographic analysis of an optically active compound determines its (1) Optical rotatory dispersive power (2) Absolute configuration (3) Relative configuration (4) Optical purity
67.	Which one of the following statements is WRONG ? (1) Carbon NMR is less sensitive than proton NMR (2) 12C nucleus is not magnetically active (3) Both 13C and *H have same spin quantum numbers (4) The gyromagnetic ratio of *H is lesser than that of 1C

Question No.	Questions
68.	In the TCA cycle, at which of the following enzyme-catalyzed steps, incorporation of elements of water into an intermediate of the cycle takes place (1) Citrate synthase (2) Aconitase (3) Maleate dehydrogenase (4) Succinyl Co-A synthase
69.	Select the optimized operating condition for "Autoclave" (1) 121 C for 15-20 min at 15 lb/sq inch (2) 121 C for 15-20 min at 50 lb/sq inch (3) 171 C for 12-20 min at 15 lb/sq inch (4) 151 C for 20-40 min at 15 lb/sq inch
70.	In dose response curve the Emax is the maximal response of the drug at a dose. ED50 is (1) The response occurred in 50% of animal population (2) The dose at which response occurs 50% of Emax (3) The dose at which 50% animals shows effect of the drug (4) ED 50 is not related with the dose of the drug
71.	Vinca alkaloids exert anti-cancer actions by (1) Inhibition of the function of microtubules (2) Inhibition of DNA synthesis (3) Inhibition of protein synthesis (4) Inhibition of purine synthesis

Question No.	Questions
72.	Which of the following opioid analgesics is used in combination with Droperidol in neuroleptanalgesia (1) Morphine (2) Buprenorphine (3) Fentanyl (4) None of above
73.	Sulphonylureas act by (1) Reducing the absorption of carbohydrate from the gut (2) Increasing the uptake of glucose in peripheral tissues (3) Reducing the hepatic gluconeogenesis (4) Stimulating the beta islet cells of pancreas to secrete insulin
74.	Which of the following groups of antibiotics demonstrates a bactericidal effect (1) Tetracyclines (2) Macrolides (3) Penicillins (4) All of the above
75.	Characteristic unwanted reaction which isn't related to a dose or to a pharmacodynamic property of a drug is called (1) Idiosyncrasy (2) Hypersensitivity (3) Tolerance (4) Teratogenic action
76.	Sedative drugs should (1) Reduce anxiety and exert a calming effect (2) Induce absence of sensation (3) Produce drowsiness, encourage the onset and maintenance of sleep (4) Prevent mood swings in patients with bipolar affective disorders

Question No.	Questions
77.	Two drugs acting on the same tissue or organ through independent receptors resulting in effects in opposite directions. This is known as (1) Physiological antagonism (2) Competitive antagonism (3) Irreversible antagonism (4) Chemical antagonism
78.	Which of the following belongs to tyrosine kinase family of receptors (1) $GABA_A$ receptors (2) Adrenergic receptors (3) Insulin receptors (4) Dopamine receptors
79.	Which of the following has highest potential for nephrotoxicity (1) Streptomycin (2) Kanamycin (3) Amikacin (4) Gentamicin
80.	Which of the following condition is associated with use of expired tetracyclines (1) Zollinger Ellison syndrome (2) Catatonia. (3) Fanconi syndrome (4) Enterocolitis
81.	Triterpenoids are active constituents of (1) Jaborandi (2) Rhubarb (3) Stramonium (4) Brahmi
82.	Alkaloids are NOT precipitated by (1) Mayer's reagent (2) Dragendroff Reagent (3) Picric acid (4) Million's reagent

Question No.	Questions
83.	Which of the following drugs has recently been banned due to presence of NMDA a potent carcinogen (1) Astemizole (2). Rosiglitazone (3) Celecoxib (4) Renitidine
84.	Clove contains (1) Eugenol, a sesquiterpenoidal volatile oil (2) Eugenol, a diterpenoidal volatile oil (3) Eugenol, a monoterpenoidal volatile oil (4) Eugenol, a polyterpenoidal volatile oil
85.	Quercetin is (1) A flavonoid, Anti-inflammatory & amp; Antioxidant properties & amp; derived from phenylalanine (2) An Alkaloid, Anti-inflammatory & amp; Antioxidant properties & amp; derived from phenylalanine (3) A flavonoid, Anti-inflammatory & amp; Antioxidant properties & amp; derived from tyramine (4) A Volatile oil, Anti-inflammatory & amp; Antioxidant properties & amp; derived from phenylalanine
86.	The symptoms of mushroom poisoning include all of the following EXCEPT (1) Salivation, lacrimation, nausea, vomiting (2) Dryness of mouth, hyperpyrexia, hallucination (3) Headache, abdominal colic (4) Bradycardia, hypotension and shock

Question No.	Questions
87.	Pick the reason for the calibration of an instrument (1) Most of the instruments are not reliable (2) To calculate the constant for the instrument (3) To calculate the relative property (4) To correct the errors in the working of an instrument
88.	Plug flow is NOT observed in cone and plate viscometer. The reason is (1) Cleaning and filling of sample is easy (2) Rate of shear is independent of the radius (3) Shear can be maintained uniformly (4) Temperature can be maintained uniformly
89.	Cisplatin is an anticancer drug. It is an example for (1) Chelate type (2) Inclusion type (3) Olefin type (4) Organic molecular complex
90.	What is the nature of drug, which mostly bind to the human serum albumin (1) Acidic (2) Basic (3) Neutral (4) Non-ionic
91.	The critical value of zeta potential (in mill volts) for a stable colloid (except gold sol) is (1) From 20 to 50 (2) From 50 to 100 (3) Less than 20 (4) More than 100

Question No.	Questions
92.	Which one of the following properties is extensively applied for determining the molecular weight of polymers (1) Depression of freezing point (2) Elevation of boiling point (3) Lowering of vapour pressure (4) Osmotic pressure
93.	Typhoid Vaccine IP is a sterile suspension or a freeze dried solid prepared from (1) Salmonella typhimurium (2) Salmonella paratyphi (3) Salmonella typhi (4) All the above
94.	Subcoating is given to the tablets (1) To increase the bulkiness (2) To avoid deterioration due to microbial attack (3) To prevent the solubility in acidic medium (4) To avoid sticking
95.	Reasons for capping of a tablet include all of the following EXCEPT (1) Excessive lubricant (2) Insufficient binder (3) Excessive pressure of compression (4) Excessive fine powder
96.	A microorganism that is particularly dangerous to the eye is (1) Streptococcus thermophiius (2) Aspergillus niger (3) Pseudomonas aeruginosa (4) Bacillus subtilis

Question No.	Questions
97.	A test used to check leakage of bacterial filters is (1) The seep test (2) The Millipore test (3) The seitz test (4) Bubble point
98.	One of the following emissions from the decay of radionuclide is commonly used in sterilization (1) Gamma (2) X-ray (3) Alpha (4) All the above
99.	The Pharmacy Council of India is constituted by the (1) Central Government (2) Parliament (3) Legislative Assembly (4) Cabinet
100.	Central Drug Laboratory is located in (1) Lucknow (2) Kasauli (3) Calcutta (4) New Delhi

(DO NOT OPEN THIS QUESTION BOOKLET BEFORE TIME OR UNTIL YOU ARE ASKED TO DO SO)

(MPH/PHD/URS–EE–2019)

Pharmaceutical Science

Code **B**

Sr. No. 10002

SET–"X"

Time : 1¼ Hours **Total Questions : 100** **Max. Marks : 100**

Roll No. _____ (in figure)_____ (in words)

Name : _____ Father's Name : _____

Mother's Name : _____ Date of Examination : _____

(Signature of the candidate) (Signature of the Invigilator)

CANDIDATES MUST READ THE FOLLOWING INFORMATION/ INSTRUCTIONS BEFORE STARTING THE QUESTION PAPER.

1. All questions are compulsory.
2. The candidates must return the Question book-let as well as OMR answer-sheet to the Invigilator concerned before leaving the Examination Hall, failing which a case of use of unfair-means / misbehaviour will be registered against him / her, in addition to lodging of an FIR with the police. Further the answer-sheet of such a candidate will not be evaluated.
3. Keeping in view the transparency of the examination system, carbonless OMR Sheet is provided to the candidate so that a copy of OMR Sheet may be kept by the candidate.
4. Question Booklet along with answer key of all the A,B,C and D code will be got uploaded on the university website after the conduct of Entrance Examination. In case there is any discrepancy in the Question Booklet/Answer Key, the same may be brought to the notice of the Controller of Examination in writing/through E. Mail within 24 hours of uploading the same on the University Website. Thereafter, no complaint in any case, will be considered.
5. The candidate MUST NOT do any rough work or writing in the OMR Answer-Sheet. Rough work, if any, may be done in the question book-let itself. Answers **MUST NOT** be ticked in the Question book-let.
6. **There will be no negative marking. Each correct answer will be awarded one full mark. Cutting, erasing, overwriting and more than one answer in OMR Answer-Sheet will be treated as incorrect answer.**
7. Use only Black or Blue <u>BALL POINT PEN</u> of good quality in the OMR Answer-Sheet.
8. BEFORE ANSWERING THE QUESTIONS, THE CANDIDATES SHOULD ENSURE THAT THEY HAVE BEEN SUPPLIED CORRECT AND COMPLETE BOOK-LET. COMPLAINTS, IF ANY, REGARDING MISPRINTING ETC. WILL NOT BE ENTERTAINED 30 MINUTES AFTER STARTING OF THE EXAMINATION.

SEAL Confidential Confidential Confidential Confidential

Question No.	Questions
1.	The end point detector used in Volhard's method is (1) Ammonium ferric sulphate solution (2) Silver nitrate solution (3) Nitrobenzene (4) Potassium thiocynate solution
2.	Find volume of 95% alcohol required to prepare 600 ml of 70% alcohol (1) 157.90 ml (2) 442.10 ml (3) 542.90 ml (4) 257.90 ml
3.	Under D & C Act 1945 regulation of pharmaceutical documentation is specified in (1) Schedule U (2) Schedule M (3) Schedule L (4) Schedule S
4.	The formation of eutectic mixture is prevented by addition of (1) Kaolin (2) Light magnesium carbonate (3) Citric acid (4) Glycerol
5.	Primary, secondary and tertiary amine can be differentiated by (1) Reaction with Benedict's reagent (2) Reaction with nitrous acid (3) Victor Meyer's method (4) Zeisel's method
6.	Which of the following alkaloid is an antihypertensive (1) Ephedrine (2) Proserpine (3) Vincristine (4) Quinine

Question No.	Questions
7.	Differential staining of bacterial spores is related to (1) Albert's staining (2) Lugol's staining (3) Moller's staining (4) Indian ink preparation
8.	The number of vittae in cremocarp of fennel is (1) 5 (2) 2 (3) 6 (4) 9
9.	Turpentine liniment does not contain (1) Camphor (2) Soft soap (3) Hard soap (4) Turpentine oil
10.	Iodine vapours for TLC are used to detect the (1) Carboxylic acid (2) Steroids (3) Unsaturated compounds (4) Saturated compounds
11.	Vinca alkaloids exert anti-cancer actions by (1) Inhibition of the function of microtubules (2) Inhibition of DNA synthesis (3) Inhibition of protein synthesis (4) Inhibition of purine synthesis
12.	Which of the following opioid analgesics is used in combination with Droperidol in neuroleptanalgesia (1) Morphine (2) Buprenorphine (3) Fentanyl (4) None of above

Question No.	Questions
13.	Sulphonylureas act by (1) Reducing the absorption of carbohydrate from the gut (2) Increasing the uptake of glucose in peripheral tissues (3) Reducing the hepatic gluconeogenesis (4) Stimulating the beta islet cells of pancreas to secrete insulin
14.	Which of the following groups of antibiotics demonstrates a bactericidal effect (1) Tetracyclines (2) Macrolides (3) Penicillins (4) All of the above
15.	Characteristic unwanted reaction which isn't related to a dose or to a pharmacodynamic property of a drug is called (1) Idiosyncrasy (2) Hypersensitivity (3) Tolerance (4) Teratogenic action
16.	Sedative drugs should (1) Reduce anxiety and exert a calming effect (2) Induce absence of sensation (3) Produce drowsiness, encourage the onset and maintenance of sleep (4) Prevent mood swings in patients with bipolar affective disorders
17.	Two drugs acting on the same tissue or organ through independent receptors resulting in effects in opposite directions. This is known as (1) Physiological antagonism (2) Competitive antagonism (3) Irreversible antagonism (4) Chemical antagonism

Question No.	Questions
18.	Which of the following belongs to tyrosine kinase family of receptors (1) $GABA_A$ receptors (2) Adrenergic receptors (3) Insulin receptors (4) Dopamine receptors
19.	Which of the following has highest potential for nephrotoxicity (1) Streptomycin (2) Kanamycin (3) Amikacin (4) Gentamicin
20.	Which of the following condition is associated with use of expired tetracyclines (1) Zollinger Ellison syndrome (2) Catatonia. (3) Fanconi syndrome (4) Enterocolitis
21.	The critical value of zeta potential (in mill volts) for a stable colloid except gold sol) is (1) From 20 to 50 (2) From 50 to 100 (3) Less than 20 (4) More than 100
22.	Which one of the following properties is extensively applied for determining the molecular weight of polymers (1) Depression of freezing point (2) Elevation of boiling point (3) Lowering of vapour pressure (4) Osmotic pressure

Question No.	Questions
23.	Typhoid Vaccine IP is a sterile suspension or a freeze dried solid prepared from (1) Salmonella typhimurium (2) Salmonella paratyphi (3) Salmonella typhi (4) All the above
24.	Subcoating is given to the tablets (1) To increase the bulkiness (2) To avoid deterioration due to microbial attack (3) To prevent the solubility in acidic medium (4) To avoid sticking
25.	Reasons for capping of a tablet include all of the following EXCEPT (1) Excessive lubricant (2) Insufficient binder (3) Excessive pressure of compression (4) Excessive fine powder
26.	A microorganism that is particularly dangerous to the eye is (1) Streptococcus thermophiius (2) Aspergillus niger (3) Pseudomonas aeruginosa (4) Bacillus subtilis
27.	A test used to check leakage of bacterial filters is (1) The seep test (2) The Millipore test (3) The seitz test (4) Bubble point
28.	One of the following emissions from the decay of radionuclide is commonly used in sterilization (1) Gamma (2) X-ray (3) Alpha (4) All the above

Question No.	Questions
29.	The Pharmacy Council of India is constituted by the (1) Central Government (2) Parliament (3) Legislative Assembly (4) Cabinet
30.	Central Drug Laboratory is located in (1) Lucknow (2) Kasauli (3) Calcutta (4) New Delhi
31.	The preferred source of light in colorimeter is (1) Tungsten lamp (2) Hydrogen discharge lamp (3) Mercury arc (4) Deuterium lamp
32.	One of the drugs is an odd one in terms of its biological action (1) Diethyl Stilbestrol (2) Tamoxifen (3) Ethynyl Estradiol (4) Mestranol
33.	One of the following drugs interrupts the synthesis of thyroid hormones by preventing iodine incorporation into the tyrosyl residue of thyroglobulin (1) Levothyroxin (2) Liothyronine (3) Carbimazole (4) Triiodo thyronine
34.	When two substances have same absorbance, then wavelength is called as (1) Isoelectric point (2) Isobestic point (3) Isocratic (4) None of these

Question No.	Questions
35.	In NMR spectroscopy,shielding of protons is characterized by (1) Chemical shift value is less for strongly shielded protons (2) NMR signals appear at lower magnetic field strength (3) Secondary magnetic field reinforce the applied magnetic field (4) All of these
36.	A substance used for modification of silica gel for reversed-phase TLC is (1) Benzene (2) Glycerin (3) Silicon oil (4) Ether
37.	A solution of thermolabile drug can be sterlized by (1) Bacteria proof filtration (2) Moist heat sterilization (3) Gaseous sterilization (4) Dry heat sterilization
38.	As per IP, the disintegration time for enteric coated tablet is (1) 15 min in distilled water (2) 60 min in simulated intestinal fluid (3) 15 min in simulated gastric fluid (4) 120 min in distilled water
39.	As per GMP, the permitted limit of solid contents in water for injection is (1) 100 ppm (2) 10 ppm (3) 1 ppm (4) 0.1 ppm
40.	The number of NMR signal expected for CH_3-CH_2-C*l* is (1) 3 (2) 5 (3) 2 (4) 4

Question No.	Questions
41.	Karl Fisher reagent used in aquametry is a solution of (1) Bromine and potassium permanganate (2) Sodium thiosulphate and iodine (3) Sodium nitrate and HC*l* (4) Iodine and sulfur dioxide in pyridine and methanol
42.	The leaves of digitalis purpurea are dried immediately after collection (1) Below 1000C (2) Below 600C (3) Below 250 C (4) At 100C
43.	Emetine an alkaloid of ipecacuanha act as (1) Cough suppressant (2) Bronchodilator (3) Amoebicidal (4) Antimalarial
44.	Which of the following is responsible for the yellow colour of turmeric (1) Camphene (2) Curcumin (3) Zinbiberene (4) α-phellandrene
45.	Cocaine abused/addicted are identified by (1) Yellow coloured urine (2) Yellowish-green coloration of skin (3) Blackened of tongue and gums (4) Their urine turns dark brown on exposure to air

Question No.	Questions
46.	Which of the following antibiotics is not an aminoglycoside (1) Gentamycin (2) Streptomycin (3) Clindamycin (4) Neomycin
47.	Aminoglycosides have the following unwanted effects (1) Pancytopenia (2) Hepatotoxicity (3) Ototoxicity, nephrotoxicity (4) Irritation of gastrointestinal mucosa
48.	Class of tacrolimus is (1) Immunoglobulins (2) Immunosuppressive agents (3) Interferons (4) Monoclonal antibodies
49.	The drug acts by competitively blocking the Na+/K+/2C*l*- contransporter (1) Loop diuretics (2) Thiazide diuretics (3) Potassium-sparing diuretics (4) Carbonic anhydrase inhibitors
50.	This drug is a non-peptide angiotensin AT-1receptor antagonist (1) Clonidine (2) Captopril (3) Telmisartan (4) Diazoxide
51.	Which of the given ophthalmic product is sterilized by radiations (1) Solution (2) Ointment (3) Suspension (4) All of these

Question No.	Questions
52.	Microscopic characters of ginger rhizome are (1) Spindle shaped lignified fibres and sclereids (2) Cluster crytals of calcium oxalate and sclereids (3) Non-lignified vessels and sac shaped starch grains (4) Non-lignified fibres and sclereids
53.	Gingkgo biloba is used for its (1) Expectorant activity (2) Lipid lowering activity (3) PAF antagonistic activity (4) Antidepressant activity
54.	Improvement of memory in Alzheimer's disease is brought about by drugs which increase transmission in (1) cholinergic receptors (2) dopaminergic receptors (3) GABA ergic receptors (4) adrenergic receptors
55.	An isosteric replacement for carboxylic acid group is (1) pyrrole (2) isoxazole (3) phenol (4) tetrazole
56.	X-ray crystallographic analysis of an optically active compound determines its (1) Optical rotatory dispersive power (2) Absolute configuration (3) Relative configuration (4) Optical purity

Question No.	Questions
57.	Which one of the following statements is WRONG ? (1) Carbon NMR is less sensitive than proton NMR (2) 12C nucleus is not magnetically active (3) Both 13C and *H have same spin quantum numbers (4) The gyromagnetic ratio of *H is lesser than that of 1C
58.	In the TCA cycle, at which of the following enzyme-catalyzed steps, incorporation of elements of water into an intermediate of the cycle takes place (1) Citrate synthase (2) Aconitase (3) Maleate dehydrogenase (4) Succinyl Co-A synthase
59.	Select the optimized operating condition for "Autoclave" (1) 121 C for 15-20 min at 15 lb/sq inch (2) 121 C for 15-20 min at 50 lb/sq inch (3) 171 C for 12-20 min at 15 lb/sq inch (4) 151 C for 20-40 min at 15 lb/sq inch
60.	In dose response curve the Emax is the maximal response of the drug at a dose. ED50 is (1) The response occurred in 50% of animal population (2) The dose at which response occurs 50% of Emax (3) The dose at which 50% animals shows effect of the drug (4) ED 50 is not related with the dose of the drug

Question No.	Questions
61.	Intermediates in the biosynthesis of cholesterol are (1) Mevalonic acid and isopentenyl pyrophosphate (2) Mevalonic acid and aldosterone (3) Isoprenaline and aldosterone (4) Isoprenaline and isopentenyl phosphate
62.	The camptothecin present in the plant and useful in treating ovarian cancer is (1) Etoposide (2) Vincristine (3) Paclitaxel (4) Topotecan
63.	Which of the following statement is correct regarding a drug exhibits elimination by zero-order kinetic (1) Biological half-life is constant (2) Both clearance and biological half-life is constant (3) Rate of elimination is constant (4) Clearance is constant.
64.	In the Drugs and Cosmetics Act and Rules, the Schedule relating to clinical trial of drugs is (1) Schedule M (2) Schedule C (3) Schedule Y (4) Schedule H

Question No.	Questions
65.	The role of borax in cold creams is (1) anti-microbial agent (2) to provide fine particles to polish skin (3) in-situ emulsifier (4) antioxidant
66.	Working principle of Ball mill is based on (1) Cutting and Impact (2) Impact and Attrition (3) Impact only (4) Attrition only
67.	Expiry period of drug preparations included in Schedule "P" of the Drugs and Cosmetics Rules 1945, can not exceed (1) 12 months from date of manufacture (2) 24 months from date of manufacture (3) 120 months from date of manufacture (4) 60 months from date of manufacture
68.	Ketone bodies are the metabolic end product of (1) Lipids (2) Proteins (3) Carbohydrate (4) All of these
69.	Indian Pharmacopoeia is published by the (1) Ministry of Health and Family Welfare (2) Pharmacy Council of India (3) Ministry of Human Resources and Development (4) All India Council of Technical Education

Question No.	Questions
70.	A synthetic sweetening agent which is nearly 200 times sweeter than sucrose and has no after taste is (1) Glycerine (2) Saccharin (3) Aspartame (4) Cyclamate
71.	Gelatin I.P. should comply with (1) Limit test for chloride (2) Limit test for sulfate (3) Microbial limits (4) Sterility test
72.	A 50 yr old farmer has a 5 year history of frequent, recurrent and very painful kidney stone. Appropriate chronic therapy for this man is (1) Furosemide (2) Hydrochlorthiazide (3) Morphine (4) Prednisolone
73.	Loss of taste sensation is side effect of following antihypertensive drug (1) Clonidine (2) Captopril (3) Verapamil (4) Prazocin
74.	Different species of *Papaver somniferum* as P. bracteatum and P. orientale are being cultivated instead of P. somniferum because they contain (1) More of morphine (2) Less of morphine (3) Only codeine (4) Only thebaine
75.	In chromatographic analysis Rf value range from (1) 1–100 (2) 0 – 1 (3) -1 – + 1 (4) 0 – 10

Question No.	Questions
76.	What is strength of 95% alcohol in terms of proof spirit (1) 166.63% O.P. (2) 66.53% O.P. (3) 66.53% U.P. (4) 166.53% U.P.
77.	Name the mode by which Vitamin D is metabolized (1) Decarboxylation (2) Methylation (3) Transesterification (4) Hydroxylation
78.	Which of the following enzyme is a constituent of BMP shunt ? (1) Glucose-6-Phosphatase (2) Hexokinase (3) Glucose-6-Phosphate dehydrogenase (4) Phosphorylase
79.	The tissue with highest glycogene content is (1) Liver (2) Kidney (3) Muscle (4) Testes
80.	In IR spectrum, the functional group region is from (1) 4000 cm-1 to 900 cm-1 (2) 4000 cm -1 to 1400 cm-1 (3) 1400 cm-1 to 900 cm-1 (4) 4000 cm-1 to 660 cm-1
81.	Triterpenoids are active constituents of (1) Jaborandi (2) Rhubarb (3) Stramonium (4) Brahmi

Question No.	Questions
82.	Alkaloids are NOT precipitated by (1) Mayer's reagent (2) Dragendroff Reagent (3) Picric acid (4) Million's reagent
83.	Which of the following drugs has recently been banned due to presence of NMDA a potent carcinogen (1) Astemizole (2) Rosiglitazone (3) Celecoxib (4) Renitidine
84.	Clove contains (1) Eugenol, a sesquiterpenoidal volatile oil (2) Eugenol, a diterpenoidal volatile oil (3) Eugenol, a monoterpenoidal volatile oil (4) Eugenol, a polyterpenoidal volatile oil
85.	Quercetin is (1) A flavonoid, Anti-inflammatory & amp; Antioxidant properties & amp; derived from phenylalanine (2) An Alkaloid, Anti-inflammatory & amp; Antioxidant properties & amp; derived from phenylalanine (3) A flavonoid, Anti-inflammatory & amp; Antioxidant properties & amp; derived from tyramine (4) A Volatile oil, Anti-inflammatory & amp; Antioxidant properties & amp; derived from phenylalanine

Question No.	Questions
86.	The symptoms of mushroom poisoning include all of the following EXCEPT (1) Salivation, lacrimation, nausea, vomiting (2) Dryness of mouth, hyperpyrexia, hallucination (3) Headache, abdominal colic (4) Bradycardia, hypotension and shock
87.	Pick the reason for the calibration of an instrument (1) Most of the instruments are not reliable (2) To calculate the constant for the instrument (3) To calculate the relative property (4) To correct the errors in the working of an instrument
88.	Plug flow is NOT observed in cone and plate viscometer. The reason is (1) Cleaning and filling of sample is easy (2) Rate of shear is independent of the radius (3) Shear can be maintained uniformly (4) Temperature can be maintained uniformly
89.	Cisplatin is an anticancer drug. It is an example for (1) Chelate type (2) Inclusion type (3) Olefin type (4) Organic molecular complex
90.	What is the nature of drug, which mostly bind to the human serum albumin (1) Acidic (2) Basic (3) Neutral (4) Non-ionic

Question No.	Questions
91.	If the product has been substituted wholly or partially by another drug, it is known as (1) Spurious drug (2) Adulterated drug (3) Misbranded drug (4) Poisonous drug
92.	If propanolol is given to patient taking oral hypoglycermic agent for diabetes, it may cause (1) Fatal hypoglycemia (2) No interaction (3) Tachycardia (4) Headache
93.	Proton pump inhibitors like omeprazole and lansoprazole contain the following ring system (1) Pyrimidine (2) Benzimidazole (3) Benzothiazole (4) Oxindole
94.	Artemisinin contains the following group in its structure (1) an endoperoxide (2) an exoperoxide (3) an epoxide (4) an acid hydrazide
95.	Mohr's method of end point determination involves (1) Determination of chlorides with the formation of AgC*l* (2) Determination of flourides with the formation of AgF (3) Determination of chlorides with the formation of NaC*l* (4) Determination of halides with the formation of AgC*l*

Question No.	Questions
96.	All of the following drugs are inhaled glucocorticoids EXCEPT (1) Fluticasone (2) Beclometazone (3) Sodium cromoglycate (4) Budesonide
97.	Indicate the drug belonging to proton pump inhibitors (1) Pirenzepine (2) Ranitidine (3) Pentoprazole (4) Trimethaphan
98.	All of these drugs are antiplatelet agents EXCEPT (1) Aspirin (2) Urokinase (3) Ticlopidine (4) Clopidogrel
99.	This drug is a Class IA antiarrhythmic drug (1) Sotalol (2) Propranolol (3) Verapamil (4) Quinidine
100.	Which of the following drugs is a reversible nonselective alfa, beta antagonist (1) Labetalol (2) Phentolamine (3) Metoprolol (4) Propranolol

(DO NOT OPEN THIS QUESTION BOOKLET BEFORE TIME OR UNTIL YOU ARE ASKED TO DO SO)

(MPH/PHD/URS–EE–2019)

Pharmaceutical Science

Code **C**

Sr. No. 10011

SET–"X"

Time : 1¼ Hours **Total Questions : 100** **Max. Marks : 100**

Roll No. _____ (in figure)_____ (in words)

Name : _____ Father's Name : _____

Mother's Name : _____ Date of Examination : _____

(Signature of the candidate) (Signature of the Invigilator)

CANDIDATES MUST READ THE FOLLOWING INFORMATION/ INSTRUCTIONS BEFORE STARTING THE QUESTION PAPER.

1. All questions are compulsory.
2. The candidates must return the Question book-let as well as OMR answer-sheet to the Invigilator concerned before leaving the Examination Hall, failing which a case of use of unfair-means / misbehaviour will be registered against him / h in addition to lodging of an FIR with the police. Further the answer-shee such a candidate will not be evaluated.
3. Keeping in view the transparency of the examination system, carbonless OI Sheet is provided to the candidate so that a copy of OMR Sheet may be kept the candidate.
4. Question Booklet along with answer key of all the A,B,C and D code will be uploaded on the university website after the conduct of Entrance Examination. In case there is any discrepancy in the Question Booklet/Answer Key, the same may be brought to the notice of the Controller of Examination in writing/through E. Mail within 24 hours of uploading the same on the University Website. Thereafter, no complaint in any case, will be considered.
5. The candidate MUST NOT do any rough work or writing in the OMR Answer-Sheet. Rough work, if any, may be done in the question book-let itself. Answers **MUST NOT** be ticked in the Question book-let.
6. **There will be no negative marking. Each correct answer will be awarded one full mark. Cutting, erasing, overwriting and more than one answer in OMR Answer-Sheet will be treated as incorrect answer.**
7. Use only Black or Blue **BALL POINT PEN** of good quality in the OMR Answer-Sheet.
8. BEFORE ANSWERING THE QUESTIONS, THE CANDIDATES SHOULD ENSURE THAT THEY HAVE BEEN SUPPLIED CORRECT AND COMPLETE BOOK-LET. COMPLAINTS, IF ANY, REGARDING MISPRINTING ETC. WILL NOT BE ENTERTAINED 30 MINUTES AFTER STARTING OF THE EXAMINATION.

Confidential Confidential Confidential SEAL

Question No.	Questions
1.	Intermediates in the biosynthesis of cholesterol are (1) Mevalonic acid and isopentenyl pyrophosphate (2) Mevalonic acid and aldosterone (3) Isoprenaline and aldosterone (4) Isoprenaline and isopentenyl phosphate
2.	The camptothecin present in the plant and useful in treating ovarian cancer is (1) Etoposide (2) Vincristine (3) Paclitaxel (4) Topotecan
3.	Which of the following statement is correct regarding a drug exhibits elimination by zero-order kinetic (1) Biological half-life is constant (2) Both clearance and biological half-life is constant (3) Rate of elimination is constant (4) Clearance is constant.
4.	In the Drugs and Cosmetics Act and Rules, the Schedule relating to clinical trial of drugs is (1) Schedule M (2) Schedule C (3) Schedule Y (4) Schedule H

Question No.	Questions
5.	The role of borax in cold creams is (1) anti-microbial agent (2) to provide fine particles to polish skin (3) in-situ emulsifier (4) antioxidant
6.	Working principle of Ball mill is based on (1) Cutting and Impact (2) Impact and Attrition (3) Impact only (4) Attrition only
7.	Expiry period of drug preparations included in Schedule "P" of the Drugs and Cosmetics Rules 1945, can not exceed (1) 12 months from date of manufacture (2) 24 months from date of manufacture (3) 120 months from date of manufacture (4) 60 months from date of manufacture
8.	Ketone bodies are the metabolic end product of (1) Lipids (2) Proteins (3) Carbohydrate (4) All of these
9.	Indian Pharmacopoeia is published by the (1) Ministry of Health and Family Welfare (2) Pharmacy Council of India (3) Ministry of Human Resources and Development (4) All India Council of Technical Education

Question No.	Questions
10.	A synthetic sweetening agent which is nearly 200 times sweeter than sucrose and has no after taste is (1) Glycerine (2) Saccharin (3) Aspartame (4) Cyclamate
11.	Karl Fisher reagent used in aquametry is a solution of (1) Bromine and potassium permanganate (2) Sodium thiosulphate and iodine (3) Sodium nitrate and HCl (4) Iodine and sulfur dioxide in pyridine and methanol
12.	The leaves of digitalis purpurea are dried immediately after collection (1) Below 1000C (2) Below 600C (3) Below 250 C (4) At 100C
13.	Emetine an alkaloid of ipecacuanha act as (1) Cough suppressant (2) Bronchodilator (3) Amoebicidal (4) Antimalarial
14.	Which of the following is responsible for the yellow colour of turmeric (1) Camphene (2) Curcumin (3) Zinbiberene (4) α-phellandrene

Question No.	Questions
15.	Cocaine abused/addicted are identified by (1) Yellow coloured urine (2) Yellowish-green coloration of skin (3) Blackened of tongue and gums (4) Their urine turns dark brown on exposure to air
16.	Which of the following antibiotics is not an aminoglycoside (1) Gentamycin (2) Streptomycin (3) Clindamycin (4) Neomycin
17.	Aminoglycosides have the following unwanted effects (1) Pancytopenia (2) Hepatotoxicity (3) Ototoxicity, nephrotoxicity (4) Irritation of gastrointestinal mucosa
18.	Class of tacrolimus is (1) Immunoglobulins (2) Immunosuppressive agents (3) Interferons (4) Monoclonal antibodies
19.	The drug acts by competitively blocking the Na+/K+/2C*l*- contransporter (1) Loop diuretics (2) Thiazide diuretics (3) Potassium-sparing diuretics (4) Carbonic anhydrase inhibitors
20.	This drug is a non-peptide angiotensin AT-1receptor antagonist (1) Clonidine (2) Captopril (3) Telmisartan (4) Diazoxide

Question No.	Questions
21.	Triterpenoids are active constituents of (1) Jaborandi (2) Rhubarb (3) Stramonium (4) Brahmi
22.	Alkaloids are NOT precipitated by (1) Mayer's reagent (2) Dragendroff Reagent (3) Picric acid (4) Million's reagent
23.	Which of the following drugs has recently been banned due to presence of NMDA a potent carcinogen (1) Astemizole (2) Rosiglitazone (3) Celecoxib (4) Renitidine
24.	Clove contains (1) Eugenol, a sesquiterpenoidal volatile oil (2) Eugenol, a diterpenoidal volatile oil (3) Eugenol, a monoterpenoidal volatile oil (4) Eugenol, a polyterpenoidal volatile oil
25.	Quercetin is (1) A flavonoid, Anti-inflammatory & amp; Antioxidant properties & amp; derived from phenylalanine (2) An Alkaloid, Anti-inflammatory & amp; Antioxidant properties & amp; derived from phenylalanine (3) A flavonoid, Anti-inflammatory & amp; Antioxidant properties & amp; derived from tyramine (4) A Volatile oil, Anti-inflammatory & amp; Antioxidant properties & amp; derived from phenylalanine

Question No.	Questions
26.	The symptoms of mushroom poisoning include all of the following EXCEPT (1) Salivation, lacrimation, nausea, vomiting (2) Dryness of mouth, hyperpyrexia, hallucination (3) Headache, abdominal colic (4) Bradycardia, hypotension and shock
27.	Pick the reason for the calibration of an instrument (1) Most of the instruments are not reliable (2) To calculate the constant for the instrument (3) To calculate the relative property (4) To correct the errors in the working of an instrument
28.	Plug flow is NOT observed in cone and plate viscometer. The reason is (1) Cleaning and filling of sample is easy (2) Rate of shear is independent of the radius (3) Shear can be maintained uniformly (4) Temperature can be maintained uniformly
29.	Cisplatin is an anticancer drug. It is an example for (1) Chelate type (2) Inclusion type (3) Olefin type (4) Organic molecular complex
30.	What is the nature of drug, which mostly bind to the human serum albumin (1) Acidic (2) Basic (3) Neutral (4) Non-ionic

Question No.	Questions
31.	Vinca alkaloids exert anti-cancer actions by (1) Inhibition of the function of microtubules (2) Inhibition of DNA synthesis (3) Inhibition of protein synthesis (4) Inhibition of purine synthesis
32.	Which of the following opioid analgesics is used in combination with Droperidol in neuroleptanalgesia (1) Morphine (2) Buprenorphine (3) Fentanyl (4) None of above
33.	Sulphonylureas act by (1) Reducing the absorption of carbohydrate from the gut (2) Increasing the uptake of glucose in peripheral tissues (3) Reducing the hepatic gluconeogenesis (4) Stimulating the beta islet cells of pancreas to secrete insulin
34.	Which of the following groups of antibiotics demonstrates a bactericidal effect (1) Tetracyclines (2) Macrolides (3) Penicillins (4) All of the above
35.	Characteristic unwanted reaction which isn't related to a dose or to a pharmacodynamic property of a drug is called (1) Idiosyncrasy (2) Hypersensitivity (3) Tolerance (4) Teratogenic action

Question No.	Questions
36.	Sedative drugs should (1) Reduce anxiety and exert a calming effect (2) Induce absence of sensation (3) Produce drowsiness, encourage the onset and maintenance of sleep (4) Prevent mood swings in patients with bipolar affective disorders
37.	Two drugs acting on the same tissue or organ through independent receptors resulting in effects in opposite directions. This is known as (1) Physiological antagonism (2) Competitive antagonism (3) Irreversible antagonism (4) Chemical antagonism
38.	Which of the following belongs to tyrosine kinase family of receptors (1) $GABA_A$ receptors (2) Adrenergic receptors (3) Insulin receptors (4) Dopamine receptors
39.	Which of the following has highest potential for nephrotoxicity (1) Streptomycin (2) Kanamycin (3) Amikacin (4) Gentamicin
40.	Which of the following condition is associated with use of expired tetracyclines (1) Zollinger Ellison syndrome (2) Catatonia. (3) Fanconi syndrome (4) Enterocolitis
41.	The preferred source of light in colorimeter is (1) Tungsten lamp (2) Hydrogen discharge lamp (3) Mercury arc (4) Deuterium lamp

Question No.	Questions
42.	One of the drugs is an odd one in terms of its biological action (1) Diethyl Stilbestrol (2) Tamoxifen (3) Ethynyl Estradiol (4) Mestranol
43.	One of the following drugs interrupts the synthesis of thyroid hormones by preventing iodine incorporation into the tyrosyl residue of thyroglobulin (1) Levothyroxin (2) Liothyronine (3) Carbimazole (4) Triiodo thyronine
44.	When two substances have same absorbance, then wavelength is called as (1) Isoelectric point (2) Isobestic point (3) Isocratic (4) None of these
45.	In NMR spectroscopy,shielding of protons is characterized by (1) Chemical shift value is less for strongly shielded protons (2) NMR signals appear at lower magnetic field strength (3) Secondary magnetic field reinforce the applied magnetic field (4) All of these
46.	A substance used for modification of silica gel for reversed-phase TLC is (1) Benzene (2) Glycerin (3) Silicon oil (4) Ether
47.	A solution of thermolabile drug can be sterlized by (1) Bacteria proof filtration (2) Moist heat sterilization (3) Gaseous sterilization (4) Dry heat sterilization

Question No.	Questions
48.	As per IP, the disintegration time for enteric coated tablet is (1) 15 min in distilled water (2) 60 min in simulated intestinal fluid (3) 15 min in simulated gastric fluid (4) 120 min in distilled water
49.	As per GMP, the permitted limit of solid contents in water for injection is (1) 100 ppm (2) 10 ppm (3) 1 ppm (4) 0.1 ppm
50.	The number of NMR signal expected for CH_3-CH_2-Cl is (1) 3 (2) 5 (3) 2 (4) 4
51.	If the product has been substituted wholly or partially by another drug, it is known as (1) Spurious drug (2) Adulterated drug (3) Misbranded drug (4) Poisonous drug
52.	If propanolol is given to patient taking oral hypoglycermic agent for diabetes, it may cause (1) Fatal hypoglycemia (2) No interaction (3) Tachycardia (4) Headache

Question No.	Questions
53.	Proton pump inhibitors like omeprazole and lansoprazole contain the following ring system (1) Pyrimidine (2) Benzimidazole (3) Benzothiazole (4) Oxindole
54.	Artemisinin contains the following group in its structure (1) an endoperoxide (2) an exoperoxide (3) an epoxide (4) an acid hydrazide
55.	Mohr's method of end point determination involves (1) Determination of chlorides with the formation of AgC*l* (2) Determination of flourides with the formation of AgF (3) Determination of chlorides with the formation of NaC*l* (4) Determination of halides with the formation of AgC*l*
56.	All of the following drugs are inhaled glucocorticoids EXCEPT (1) Fluticasone (2) Beclometazone (3) Sodium cromoglycate (4) Budesonide
57.	Indicate the drug belonging to proton pump inhibitors (1) Pirenzepine (2) Ranitidine (3) Pentoprazole (4) Trimethaphan
58.	All of these drugs are antiplatelet agents EXCEPT (1) Aspirin (2) Urokinase (3) Ticlopidine (4) Clopidogrel

Question No.	Questions
59.	This drug is a Class IA antiarrhythmic drug (1) Sotalol (2) Propranolol (3) Verapamil (4) Quinidine
60.	Which of the following drugs is a reversible nonselective alfa, beta antagonist (1) Labetalol (2) Phentolamine (3) Metoprolol (4) Propranolol
61.	Gelatin I.P. should comply with (1) Limit test for chloride (2) Limit test for sulfate (3) Microbial limits (4) Sterility test
62.	A 50 yr old farmer has a 5 year history of frequent, recurrent and very painful kidney stone. Appropriate chronic therapy for this man is (1) Furosemide (2) Hydrochlorthiazide (3) Morphine (4) Prednisolone
63.	Loss of taste sensation is side effect of following antihypertensive drug (1) Clonidine (2) Captopril (3) Verapamil (4) Prazocin
64.	Different species of *Papaver somniferum* as P. bracteatum and P. orientale are being cultivated instead of P. somniferum because they contain (1) More of morphine (2) Less of morphine (3) Only codeine (4) Only thebaine

Question No.	Questions
65.	In chromatographic analysis Rf value range from (1) 1–100 (2) 0 – 1 (3) -1 – + 1 (4) 0 – 10
66.	What is strength of 95% alcohol in terms of proof spirit (1) 166.63% O.P. (2) 66.53% O.P. (3) 66.53% U.P. (4) 166.53% U.P.
67.	Name the mode by which Vitamin D is metabolized (1) Decarboxylation (2) Methylation (3) Transesterification (4) Hydroxylation
68.	Which of the following enzyme is a constituent of BMP shunt ? (1) Glucose-6-Phosphatase (2) Hexokinase (3) Glucose-6-Phosphate dehydrogenase (4) Phosphorylase
69.	The tissue with highest glycogene content is (1) Liver (2) Kidney (3) Muscle (4) Testes
70.	In IR spectrum, the functional group region is from (1) 4000 cm-1 to 900 cm-1 (2) 4000 cm -1 to 1400 cm-1 (3) 1400 cm-1 to 900 cm-1 (4) 4000 cm-1 to 660 cm-1

Question No.	Questions
71.	The end point detector used in Volhard's method is (1) Ammonium ferric sulphate solution (2) Silver nitrate solution (3) Nitrobenzene (4) Potassium thiocynate solution
72.	Find volume of 95% alcohol required to prepare 600 ml of 70% alcohol (1) 157.90 ml (2) 442.10 ml (3) 542.90 ml (4) 257.90 ml
73.	Under D & C Act 1945 regulation of pharmaceutical documentation is specified in (1) Schedule U (2) Schedule M (3) Schedule L (4) Schedule S
74.	The formation of eutectic mixture is prevented by addition of (1) Kaolin (2) Light magnesium carbonate (3) Citric acid (4) Glycerol
75.	Primary, secondary and tertiary amine can be differentiated by (1) Reaction with Benedict's reagent (2) Reaction with nitrous acid (3) Victor Meyer's method (4) Zeisel's method
76.	Which of the following alkaloid is an antihypertensive (1) Ephedrine (2) Proserpine (3) Vincristine (4) Quinine

Question No.	Questions
77.	Differential staining of bacterial spores is related to (1) Albert's staining (2) Lugol's staining (3) Moller's staining (4) Indian ink preparation
78.	The number of vittae in cremocarp of fennel is (1) 5 (2) 2 (3) 6 (4) 9
79.	Turpentine liniment does not contain (1) Camphor (2) Soft soap (3) Hard soap (4) Turpentine oil
80.	Iodine vapours for TLC are used to detect the (1) Carboxylic acid (2) Steroids (3) Unsaturated compounds (4) Saturated compounds
81.	The critical value of zeta potential (in mill volts) for a stable colloid (except gold sol) is (1) From 20 to 50 (2) From 50 to 100 (3) Less than 20 (4) More than 100
82.	Which one of the following properties is extensively applied for determining the molecular weight of polymers (1) Depression of freezing point (2) Elevation of boiling point (3) Lowering of vapour pressure (4) Osmotic pressure

Question No.	Questions
83.	Typhoid Vaccine IP is a sterile suspension or a freeze dried solid prepared from (1) Salmonella typhimurium (2) Salmonella paratyphi (3) Salmonella typhi (4) All the above
84.	Subcoating is given to the tablets (1) To increase the bulkiness (2) To avoid deterioration due to microbial attack (3) To prevent the solubility in acidic medium (4) To avoid sticking
85.	Reasons for capping of a tablet include all of the following EXCEPT (1) Excessive lubricant (2) Insufficient binder (3) Excessive pressure of compression (4) Excessive fine powder
86.	A microorganism that is particularly dangerous to the eye is (1) Streptococcus thermophiius (2) Aspergillus niger (3) Pseudomonas aeruginosa (4) Bacillus subtilis
87.	A test used to check leakage of bacterial filters is (1) The seep test (2) The Millipore test (3) The seitz test (4) Bubble point
88.	One of the following emissions from the decay of radionuclide is commonly used in sterilization (1) Gamma (2) X-ray (3) Alpha (4) All the above

Question No.	Questions
89.	The Pharmacy Council of India is constituted by the (1) Central Government (2) Parliament (3) Legislative Assembly (4) Cabinet
90.	Central Drug Laboratory is located in (1) Lucknow (2) Kasauli (3) Calcutta (4) New Delhi
91.	Which of the given ophthalmic product is sterilized by radiations (1) Solution (2) Ointment (3) Suspension (4) All of these
92.	Microscopic characters of ginger rhizome are (1) Spindle shaped lignified fibres and sclereids (2) Cluster crytals of calcium oxalate and sclereids (3) Non-lignified vessels and sac shaped starch grains (4) Non-lignified fibres and sclereids
93.	Gingkgo biloba is used for its (1) Expectorant activity (2) Lipid lowering activity (3) PAF antagonistic activity (4) Antidepressant activity
94.	Improvement of memory in Alzheimer's disease is brought about by drugs which increase transmission in (1) cholinergic receptors (2) dopaminergic receptors (3) GABA ergic receptors (4) adrenergic receptors

Question No.	Questions
95.	An isosteric replacement for carboxylic acid group is (1) pyrrole (2) isoxazole (3) phenol (4) tetrazole
96.	X-ray crystallographic analysis of an optically active compound determines its (1) Optical rotatory dispersive power (2) Absolute configuration (3) Relative configuration (4) Optical purity
97.	Which one of the following statements is WRONG ? (1) Carbon NMR is less sensitive than proton NMR (2) 12C nucleus is not magnetically active (3) Both 13C and *H have same spin quantum numbers (4) The gyromagnetic ratio of *H is lesser than that of 1C
98.	In the TCA cycle, at which of the following enzyme-catalyzed steps, incorporation of elements of water into an intermediate of the cycle takes place (1) Citrate synthase (2) Aconitase (3) Maleate dehydrogenase (4) Succinyl Co-A synthase

Question No.	Questions
99.	Select the optimized operating condition for "Autoclave" (1) 121 C for 15-20 min at 15 lb/sq inch (2) 121 C for 15-20 min at 50 lb/sq inch (3) 171 C for 12-20 min at 15 lb/sq inch (4) 151 C for 20-40 min at 15 lb/sq inch
100.	In dose response curve the Emax is the maximal response of the drug at a dose. ED50 is (1) The response occurred in 50% of animal population (2) The dose at which response occurs 50% of Emax (3) The dose at which 50% animals shows effect of the drug (4) ED 50 is not related with the dose of the drug

(DO NOT OPEN THIS QUESTION BOOKLET BEFORE TIME OR UNTIL YOU ARE ASKED TO DO SO)

(MPH/PHD/URS–EE–2019)

Pharmaceutical Science

Code **D**

Sr. No. 10032

SET–"X"

Time : 1¼ Hours | Total Questions : 100 | Max. Marks : 100

Roll No. _____ (in figure) _____ (in words)

Name : _____ Father's Name : _____

Mother's Name : _____ Date of Examination : _____

(Signature of the candidate) (Signature of the Invigilator)

CANDIDATES MUST READ THE FOLLOWING INFORMATION/ INSTRUCTIONS BEFORE STARTING THE QUESTION PAPER.



1. All questions are compulsory.
2. The candidates must return the Question book-let as well as OMR answer-she to the Invigilator concerned before leaving the Examination Hall, failing whicl case of use of unfair-means / misbehaviour will be registered against him / he in addition to lodging of an FIR with the police. Further the answer-sheet such a candidate will not be evaluated.
3. Keeping in view the transparency of the examination system, carbonless OMR Sheet is provided to the candidate so that a copy of OMR Sheet may be kept by the candidate.
4. Question Booklet along with answer key of all the A,B,C and D code will be got uploaded on the university website after the conduct of Entrance Examination. In case there is any discrepancy in the Question Booklet/Answer Key, the same may be brought to the notice of the Controller of Examination in writing/through E. Mail within 24 hours of uploading the same on the University Website. Thereafter, no complaint in any case, will be considered.
5. The candidate MUST NOT do any rough work or writing in the OMR Answer-Sheet. Rough work, if any, may be done in the question book-let itself. Answers MUST NOT be ticked in the Question book-let.
6. **There will be no negative marking. Each correct answer will be awarded one full mark. Cutting, erasing, overwriting and more than one answer in OMR Answer-Sheet will be treated as incorrect answer.**
7. Use only Black or Blue <u>BALL POINT PEN</u> of good quality in the OMR Answer-Sheet.
8. BEFORE ANSWERING THE QUESTIONS, THE CANDIDATES SHOULD ENSURE THAT THEY HAVE BEEN SUPPLIED CORRECT AND COMPLETE BOOK-LET. COMPLAINTS, IF ANY, REGARDING MISPRINTING ETC. WILL NOT BE ENTERTAINED 30 MINUTES AFTER STARTING OF THE EXAMINATION.

Question No.	Questions
1.	The critical value of zeta potential (in mill volts) for a stable colloid (except gold sol) is (1) From 20 to 50 (2) From 50 to 100 (3) Less than 20 (4) More than 100
2.	Which one of the following properties is extensively applied for determining the molecular weight of polymers (1) Depression of freezing point (2) Elevation of boiling point (3) Lowering of vapour pressure (4) Osmotic pressure
3.	Typhoid Vaccine IP is a sterile suspension or a freeze dried solid prepared from (1) Salmonella typhimurium (2) Salmonella paratyphi (3) Salmonella typhi (4) All the above
4.	Subcoating is given to the tablets (1) To increase the bulkiness (2) To avoid deterioration due to microbial attack (3) To prevent the solubility in acidic medium (4) To avoid sticking
5.	Reasons for capping of a tablet include all of the following EXCEPT (1) Excessive lubricant (2) Insufficient binder (3) Excessive pressure of compression (4) Excessive fine powder

Question No.	Questions
6.	A microorganism that is particularly dangerous to the eye is (1) Streptococcus thermophiius (2) Aspergillus niger (3) Pseudomonas aeruginosa (4) Bacillus subtilis
7.	A test used to check leakage of bacterial filters is (1) The seep test (2) The Millipore test (3) The seitz test (4) Bubble point
8.	One of the following emissions from the decay of radionuclide is commonly used in sterilization (1) Gamma (2) X-ray (3) Alpha (4) All the above
9.	The Pharmacy Council of India is constituted by the (1) Central Government (2) Parliament (3) Legislative Assembly (4) Cabinet
10.	Central Drug Laboratory is located in (1) Lucknow (2) Kasauli (3) Calcutta (4) New Delhi
11.	If the product has been substituted wholly or partially by another drug, it is known as (1) Spurious drug (2) Adulterated drug (3) Misbranded drug (4) Poisonous drug

Question No.	Questions
12.	If propanolol is given to patient taking oral hypoglycermic agent for diabetes, it may cause (1) Fatal hypoglycemia (2) No interaction (3) Tachycardia (4) Headache
13.	Proton pump inhibitors like omeprazole and lansoprazole contain the following ring system (1) Pyrimidine (2) Benzimidazole (3) Benzothiazole (4) Oxindole
14.	Artemisinin contains the following group in its structure (1) an endoperoxide (2) an exoperoxide (3) an epoxide (4) an acid hydrazide
15.	Mohr's method of end point determination involves (1) Determination of chlorides with the formation of AgC*l* (2) Determination of flourides with the formation of AgF (3) Determination of chlorides with the formation of NaC*l* (4) Determination of halides with the formation of AgC*l*
16.	All of the following drugs are inhaled glucocorticoids EXCEPT (1) Fluticasone (2) Beclometazone (3) Sodium cromoglycate (4) Budesonide
17.	Indicate the drug belonging to proton pump inhibitors (1) Pirenzepine (2) Ranitidine (3) Pentoprazole (4) Trimethaphan

Question No.	Questions
18.	All of these drugs are antiplatelet agents EXCEPT (1) Aspirin (2) Urokinase (3) Ticlopidine (4) Clopidogrel
19.	This drug is a Class IA antiarrhythmic drug (1) Sotalol (2) Propranolol (3) Verapamil (4) Quinidine
20.	Which of the following drugs is a reversible nonselective alfa, beta antagonist (1) Labetalol (2) Phentolamine (3) Metoprolol (4) Propranolol
21.	Vinca alkaloids exert anti-cancer actions by (1) Inhibition of the function of microtubules (2) Inhibition of DNA synthesis (3) Inhibition of protein synthesis (4) Inhibition of purine synthesis
22.	Which of the following opioid analgesics is used in combination with Droperidol in neuroleptanalgesia (1) Morphine (2) Buprenorphine (3) Fentanyl (4) None of above

Question No.	Questions
23.	Sulphonylureas act by (1) Reducing the absorption of carbohydrate from the gut (2) Increasing the uptake of glucose in peripheral tissues (3) Reducing the hepatic gluconeogenesis (4) Stimulating the beta islet cells of pancreas to secrete insulin
24.	Which of the following groups of antibiotics demonstrates a bactericidal effect (1) Tetracyclines (2) Macrolides (3) Penicillins (4) All of the above
25.	Characteristic unwanted reaction which isn't related to a dose or to a pharmacodynamic property of a drug is called (1) Idiosyncrasy (2) Hypersensitivity (3) Tolerance (4) Teratogenic action
26.	Sedative drugs should (1) Reduce anxiety and exert a calming effect (2) Induce absence of sensation (3) Produce drowsiness, encourage the onset and maintenance of sleep (4) Prevent mood swings in patients with bipolar affective disorders
27.	Two drugs acting on the same tissue or organ through independent receptors resulting in effects in opposite directions. This is known as (1) Physiological antagonism (2) Competitive antagonism (3) Irreversible antagonism (4) Chemical antagonism

Question No.	Questions
28.	Which of the following belongs to tyrosine kinase family of receptors (1) $GABA_A$ receptors (2) Adrenergic receptors (3) Insulin receptors (4) Dopamine receptors
29.	Which of the following has highest potential for nephrotoxicity (1) Streptomycin (2) Kanamycin (3) Amikacin (4) Gentamicin
30.	Which of the following condition is associated with use of expired tetracyclines (1) Zollinger Ellison syndrome (2) Catatonia. (3) Fanconi syndrome (4) Enterocolitis
31.	Intermediates in the biosynthesis of cholesterol are (1) Mevalonic acid and isopentenyl pyrophosphate (2) Mevalonic acid and aldosterone (3) Isoprenaline and aldosterone (4) Isoprenaline and isopentenyl phosphate
32.	The camptothecin present in the plant and useful in treating ovarian cancer is (1) Etoposide (2) Vincristine (3) Paclitaxel (4) Topotecan

Question No.	Questions
33.	Which of the following statement is correct regarding a drug exhibits elimination by zero-order kinetic (1) Biological half-life is constant (2) Both clearance and biological half-life is constant (3) Rate of elimination is constant (4) Clearance is constant.
34.	In the Drugs and Cosmetics Act and Rules, the Schedule relating to clinical trial of drugs is (1) Schedule M (2) Schedule C (3) Schedule Y (4) Schedule H
35.	The role of borax in cold creams is (1) anti-microbial agent (2) to provide fine particles to polish skin (3) in-situ emulsifier (4) antioxidant
36.	Working principle of Ball mill is based on (1) Cutting and Impact (2) Impact and Attrition (3) Impact only (4) Attrition only
37.	Expiry period of drug preparations included in Schedule "P" of the Drugs and Cosmetics Rules 1945, can not exceed (1) 12 months from date of manufacture (2) 24 months from date of manufacture (3) 120 months from date of manufacture (4) 60 months from date of manufacture

Question No.	Questions
38.	Ketone bodies are the metabolic end product of (1) Lipids (2) Proteins (3) Carbohydrate (4) All of these
39.	Indian Pharmacopoeia is published by the (1) Ministry of Health and Family Welfare (2) Pharmacy Council of India (3) Ministry of Human Resources and Development (4) All India Council of Technical Education
40.	A synthetic sweetening agent which is nearly 200 times sweeter than sucrose and has no after taste is (1) Glycerine (2) Saccharin (3) Aspartame (4) Cyclamate
41.	Which of the given ophthalmic product is sterilized by radiations (1) Solution (2) Ointment (3) Suspension (4) All of these
42.	Microscopic characters of ginger rhizome are (1) Spindle shaped lignified fibres and sclereids (2) Cluster crytals of calcium oxalate and sclereids (3) Non-lignified vessels and sac shaped starch grains (4) Non-lignified fibres and sclereids

Question No.	Questions
43.	Gingkgo biloba is used for its (1) Expectorant activity (2) Lipid lowering activity (3) PAF antagonistic activity (4) Antidepressant activity
44.	Improvement of memory in Alzheimer's disease is brought about by drugs which increase transmission in (1) cholinergic receptors (2) dopaminergic receptors (3) GABA ergic receptors (4) adrenergic receptors
45.	An isosteric replacement for carboxylic acid group is (1) pyrrole (2) isoxazole (3) phenol (4) tetrazole
46.	X-ray crystallographic analysis of an optically active compound determines its (1) Optical rotatory dispersive power (2) Absolute configuration (3) Relative configuration (4) Optical purity
47.	Which one of the following statements is WRONG ? (1) Carbon NMR is less sensitive than proton NMR (2) 12C nucleus is not magnetically active (3) Both 13C and *H have same spin quantum numbers (4) The gyromagnetic ratio of *H is lesser than that of 1C

Question No.	Questions
48.	In the TCA cycle, at which of the following enzyme-catalyzed steps, incorporation of elements of water into an intermediate of the cycle takes place (1) Citrate synthase (2) Aconitase (3) Maleate dehydrogenase (4) Succinyl Co-A synthase
49.	Select the optimized operating condition for "Autoclave" (1) 121 C for 15-20 min at 15 lb/sq inch (2) 121 C for 15-20 min at 50 lb/sq inch (3) 171 C for 12-20 min at 15 lb/sq inch (4) 151 C for 20-40 min at 15 lb/sq inch
50.	In dose response curve the Emax is the maximal response of the drug at a dose. ED50 is (1) The response occurred in 50% of animal population (2) The dose at which response occurs 50% of Emax (3) The dose at which 50% animals shows effect of the drug (4) ED 50 is not related with the dose of the drug
51.	Triterpenoids are active constituents of (1) Jaborandi (2) Rhubarb (3) Stramonium (4) Brahmi

Question No.	Questions
52.	Alkaloids are NOT precipitated by (1) Mayer's reagent (2) Dragendroff Reagent (3) Picric acid (4) Million's reagent
53.	Which of the following drugs has recently been banned due to presence of NMDA a potent carcinogen (1) Astemizole (2) Rosiglitazone (3) Celecoxib (4) Renitidine
54.	Clove contains (1) Eugenol, a sesquiterpenoidal volatile oil (2) Eugenol, a diterpenoidal volatile oil (3) Eugenol, a monoterpenoidal volatile oil (4) Eugenol, a polyterpenoidal volatile oil
55.	Quercetin is (1) A flavonoid, Anti-inflammatory & amp; Antioxidant properties & amp; derived from phenylalanine (2) An Alkaloid, Anti-inflammatory & amp; Antioxidant properties & amp; derived from phenylalanine (3) A flavonoid, Anti-inflammatory & amp; Antioxidant properties & amp; derived from tyramine (4) A Volatile oil, Anti-inflammatory & amp; Antioxidant properties & amp; derived from phenylalanine

Question No.	Questions
56.	The symptoms of mushroom poisoning include all of the following EXCEPT (1) Salivation, lacrimation, nausea, vomiting (2) Dryness of mouth, hyperpyrexia, hallucination (3) Headache, abdominal colic (4) Bradycardia, hypotension and shock
57.	Pick the reason for the calibration of an instrument (1) Most of the instruments are not reliable (2) To calculate the constant for the instrument (3) To calculate the relative property (4) To correct the errors in the working of an instrument
58.	Plug flow is NOT observed in cone and plate viscometer. The reason is (1) Cleaning and filling of sample is easy (2) Rate of shear is independent of the radius (3) Shear can be maintained uniformly (4) Temperature can be maintained uniformly
59.	Cisplatin is an anticancer drug. It is an example for (1) Chelate type (2) Inclusion type (3) Olefin type (4) Organic molecular complex
60.	What is the nature of drug, which mostly bind to the human serum albumin (1) Acidic (2) Basic (3) Neutral (4) Non-ionic

Question No.	Questions
61.	The end point detector used in Volhard's method is (1) Ammonium ferric sulphate solution (2) Silver nitrate solution (3) Nitrobenzene (4) Potassium thiocynate solution
62.	Find volume of 95% alcohol required to prepare 600 ml of 70% alcohol . (1) 157.90 ml (2) 442.10 ml (3) 542.90 ml (4) 257.90 ml
63.	Under D & C Act 1945 regulation of pharmaceutical documentation is specified in (1) Schedule U (2) Schedule M (3) Schedule L (4) Schedule S
64.	The formation of eutectic mixture is prevented by addition of (1) Kaolin (2) Light magnesium carbonate (3) Citric acid (4) Glycerol
65.	Primary, secondary and tertiary amine can be differentiated by (1) Reaction with Benedict's reagent (2) Reaction with nitrous acid (3) Victor Meyer's method (4) Zeisel's method
66.	Which of the following alkaloid is an antihypertensive (1) Ephedrine (2) Proserpine (3) Vincristine (4) Quinine

Question No.	Questions
67.	Differential staining of bacterial spores is related to (1) Albert's staining (2) Lugol's staining (3) Moller's staining (4) Indian ink preparation
68.	The number of vittae in cremocarp of fennel is (1) 5 (2) 2 (3) 6 (4) 9
69.	Turpentine liniment does not contain (1) Camphor (2) Soft soap (3) Hard soap (4) Turpentine oil
70.	Iodine vapours for TLC are used to detect the (1) Carboxylic acid (2) Steroids (3) Unsaturated compounds (4) Saturated compounds
71.	Karl Fisher reagent used in aquametry is a solution of (1) Bromine and potassium permanganate (2) Sodium thiosulphate and iodine (3) Sodium nitrate and HCl (4) Iodine and sulfur dioxide in pyridine and methanol
72.	The leaves of digitalis purpurea are dried immediately after collection (1) Below 1000C (2) Below 600C (3) Below 250 C (4) At 100C

Question No.	Questions
73.	Emetine an alkaloid of ipecacuanha act as (1) Cough suppressant (2) Bronchodilator (3) Amoebicidal (4) Antimalarial
74.	Which of the following is responsible for the yellow colour of turmeric (1) Camphene (2) Curcumin (3) Zinbiberene (4) α-phellandrene
75.	Cocaine abused/addicted are identified by (1) Yellow coloured urine (2) Yellowish-green coloration of skin (3) Blackened of tongue and gums (4) Their urine turns dark brown on exposure to air
76.	Which of the following antibiotics is not an aminoglycoside (1) Gentamycin (2) Streptomycin (3) Clindamycin (4) Neomycin
77.	Aminoglycosides have the following unwanted effects (1) Pancytopenia (2) Hepatotoxicity (3) Ototoxicity, nephrotoxicity (4) Irritation of gastrointestinal mucosa
78.	Class of tacrolimus is (1) Immunoglobulins (2) Immunosuppressive agents (3) Interferons (4) Monoclonal antibodies

Question No.	Questions
79.	The drug acts by competitively blocking the Na+/K+/2C*l*- contransporter (1) Loop diuretics (2) Thiazide diuretics (3) Potassium-sparing diuretics (4) Carbonic anhydrase inhibitors
80.	This drug is a non-peptide angiotensin AT-1receptor antagonist (1) Clonidine (2) Captopril (3) Telmisartan (4) Diazoxide
81.	The preferred source of light in colorimeter is (1) Tungsten lamp (2) Hydrogen discharge lamp (3) Mercury arc (4) Deuterium lamp
82.	One of the drugs is an odd one in terms of its biological action (1) Diethyl Stilbestrol (2) Tamoxifen (3) Ethynyl Estradiol (4) Mestranol
83.	One of the following drugs interrupts the synthesis of thyroid hormones by preventing iodine incorporation into the tyrosyl residue of thyroglobulin (1) Levothyroxin (2) Liothyronine (3) Carbimazole (4) Triiodo thyronine

Question No.	Questions
84.	When two substances have same absorbance, then wavelength is called as (1) Isoelectric point (2) Isobestic point (3) Isocratic (4) None of these
85.	In NMR spectroscopy,shielding of protons is characterized by (1) Chemical shift value is less for strongly shielded protons (2) NMR signals appear at lower magnetic field strength (3) Secondary magnetic field reinforce the applied magnetic field (4) All of these
86.	A substance used for modification of silica gel for reversed-phase TLC is (1) Benzene (2) Glycerin (3) Silicon oil (4) Ether
87.	A solution of thermolabile drug can be sterlized by (1) Bacteria proof filtration (2) Moist heat sterilization (3) Gaseous sterilization (4) Dry heat sterilization
88.	As per IP, the disintegration time for enteric coated tablet is (1) 15 min in distilled water (2) 60 min in simulated intestinal fluid (3) 15 min in simulated gastric fluid (4) 120 min in distilled water

Question No.	Questions
89.	As per GMP, the permitted limit of solid contents in water for injection is (1) 100 ppm (2) 10 ppm (3) 1 ppm (4) 0.1 ppm
90.	The number of NMR signal expected for CH_3-CH_2-C*l* is (1) 3 (2) 5 (3) 2 (4) 4
91.	Gelatin I.P. should comply with (1) Limit test for chloride (2) Limit test for sulfate (3) Microbial limits (4) Sterility test
92.	A 50 yr old farmer has a 5 year history of frequent, recurrent and very painful kidney stone. Appropriate chronic therapy for this man is (1) Furosemide (2) Hydrochlorthiazide (3) Morphine (4) Prednisolone
93.	Loss of taste sensation is side effect of following antihypertensive drug (1) Clonidine (2) Captopril (3) Verapamil (4) Prazocin
94.	Different species of *Papaver somniferum* as P. bracteatum and P. orientale are being cultivated instead of P. somniferum because they contain (1) More of morphine (2) Less of morphine (3) Only codeine (4) Only thebaine

Question No.	Questions
95.	In chromatographic analysis Rf value range from (1) 1–100 (2) 0 – 1 (3) -1 – + 1 (4) 0 – 10
96.	What is strength of 95% alcohol in terms of proof spirit (1) 166.63% O.P. (2) 66.53% O.P. (3) 66.53% U.P. (4) 166.53% U.P.
97.	Name the mode by which Vitamin D is metabolized (1) Decarboxylation (2) Methylation (3) Transesterification (4) Hydroxylation
98.	Which of the following enzyme is a constituent of BMP shunt ? (1) Glucose-6-Phosphatase (2) Hexokinase (3) Glucose-6-Phosphate dehydrogenase (4) Phosphorylase
99.	The tissue with highest glycogene content is (1) Liver (2) Kidney (3) Muscle (4) Testes
100.	In IR spectrum, the functional group region is from (1) 4000 cm-1 to 900 cm-1 (2) 4000 cm -1 to 1400 cm-1 (3) 1400 cm-1 to 900 cm-1 (4) 4000 cm-1 to 660 cm-1

Dept of Pharmacutical Sciences

ANSWER KEY M. Phil/Ph. D./URS/ Entrance Exam.

20.11.2019

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

25/11/19 20/11/19 20/11/19 20.11.19

Scanned by CamScanner

52	2	3	1	4
53	3	3	2	4
54	2	1	1	1
55	3	4	1	1
56	3	2	3	2
57	3	4	3	4
58	2	3	2	4
59	1	1	4	2
60	3	2	1	1
61	2	1	3	1
62	3	4	2	2
63	3	3	2	1
64	1	3	4	2
65	4	1	2	2
66	2	2	2	2
67	4	4	4	3
68	3	1	3	1
69	1	1	1	3
70	2	3	2	3
71	1	3	1	4
72	3	2	2	2
73	4	2	1	3
74	3	4	2	2
75	2	2	2	3
76	1	2	2	3
77	1	4	3	3
78	3	3	1	2
79	4	1	3	1
80	3	2	3	3
81	4	4	1	1
82	4	4	4	2
83	4	4	3	3
84	1	1	1	2
85	1	1	1	2
86	2	2	3	3
87	4	4	4	1
88	4	4	1	2
89	2	2	1	2
90	1	1	3	3
91	1	1	2	3
92	4	1	3	2
93	3	2	3	2
94	1	1	1	4
95	1	1	4	2
96	3	3	2	2
97	4	3	4	4
98	1	2	3	3
99	1	4	1	1
100	3	1	2	2

20/11/19 20/11/19 20/11/19 20/11/19

Scanned by CamScanner