

SET-"Z"

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

(CPG-EE-2018)

Subject : PHARMACEUTICAL SCIENCE

10297

Code **A**

used for June 2018.

Sr. No. _____

Time : 1½ Hours

Total Questions : 100

Max. Marks : 100

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

Name : _____ Date of Birth : _____

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.

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Question No.	Questions
1.	Shrinkage of gel by extrusion of liquid is called : (1) Syneresis (2) Dilatancy (3) Plasticity (4) Diaphoresis
2.	List of diseases that a drug should not claim to cure is given in Schedule : (1) J (2) L (3) C (4) H
3.	Cell wall of gram negative bacteria possesses the following characteristics: (1) Lacks lipids (2) Lacks techoic acid (3) Lacks carbohydrates (4) Lacks proteins
4.	Source of agar is : (1) Gelidium melesi (2) Gelidium amansii (3) Gelidium laminari (4) Gelidium topicana
5.	Carr's index is used to determine : (1) Powder flow (2) Particle size (3) Elasticity (4) Polymorphism
6.	Sink condition is necessary in the process of absorption because : (1) It increases the disintegration of the dosage form (2) It increases the dissolution process of the drug by maintaining the concentration gradient (3) It increases the process of absorption by facilitating the transfer of drug across the cell membrane (4) None of the above

Question No.	Questions
7.	<p>The properties of solutions containing surface active agents change sharply over a narrow concentration range and is called as :</p> <ul style="list-style-type: none">(1) Critical Micelle concentration(2) Ionic concentration(3) Hydrogen ion concentration(4) Surface tension
8.	<p>Schedule O is related to :</p> <ul style="list-style-type: none">(1) Standards for Disinfected fluids(2) Standards for ophthalmic preparations(3) Requirement of factory premises(4) Standards for cosmetics
9.	<p>The most important barrier to drug transport when applied topically to the skin is :</p> <ul style="list-style-type: none">(1) Dermis(2) Stratum corneum(3) Sweat glands(4) Hair follicles
10.	<p>The toughness of a material can be reduced by:</p> <ul style="list-style-type: none">(1) heating the material(2) treating the material with gas(3) treating the material with liquid nitrogen(4) none of these

Question No.	Questions
21.	Softening point of Lipsticks can be determined by : (1) Breaking test method (2) Ring and ball method (3) Strain test (4) Peroxide value test
22.	Which one is the suitable method for potent drug mixing ? (1) Trituration (2) Tumbling (3) Spatulation (4) Geometric dilution
23.	Staphylococcus aureus is used for the IP assay of : (1) Bleomycin (2) Carbenicillin (3) Kanamycin (4) Doxycycline
24.	In gels the term 'magma' is referred to a : (1) Single phase gel (2) Two phase gel (3) Jellies (4) Gels having low viscosity
25.	Licenses which are made in Form 24-A and issued in Form 25-A are : (1) Repackaging licenses (2) New drug license (3) Loan license (4) None of above
26.	What are known as balsams ? (1) Resins dissolved in volatile oil (2) A mixture of volatile oils with sesquiterpenes (3) Resins dissolved in water (4) Polysaccharide mixed with volatile oil

Question No.	Questions
32.	Which of the following vegetable drugs contains ajoene ? (1) Valerianae radix (2) Allii sativi bulbus (3) Agrimoniae herba (4) Echinaceae radix
33.	Ginseng saponins are of the _____ Series : (1) Lupine (2) Ursane (3) Dammarane (4) Abietane
34.	Choose the anthraquinone containing drug : (1) Betulae folium (2) Graminis rhizome (3) Rhei rhizome (4) Herniariae herba
35.	Acid value is defined as : (1) Number of milligram of potassium hydroxide required to neutralize one gram of fat or oil (2) Number of gram of potassium hydroxide required to neutralize one gram of fat or oil (3) Number of Kilogram of potassium hydroxide required to neutralize one gram of fat or oil (4) Number of ml of potassium hydroxide (5N) required to neutralize one gram of fat or oil
36.	Protoalkaloids are also called as : (1) Amino alkaloid (2) Pseudo alkaloid (3) True alkaloid (4) Extra alkaloid

Question No.	Questions
37.	<p>The ring structure present in strychnine is :</p> <p>(1) Indole (2) Pyrrole</p> <p>(3) Pyridine (4) Piperidine</p>
38.	<p>What kind of type of compounds can be detected by Mayer's reagent ?</p> <p>(1) Sesterterpenes (2) Starches</p> <p>(3) Alkaloids (4) Procyanidines</p>
39.	<p>The senna-emodin aglycones and senna-emodin glycosides are _____ derivatives :</p> <p>(1) Tetraterpenes</p> <p>(2) Monoterpenes with labdane structure</p> <p>(3) Pseudoguaianolides</p> <p>(4) Anthraquinones</p>
40.	<p>Dragendorffs reagent is composed of :</p> <p>(1) Picric acid (2) Potassium bismuth iodide</p> <p>(3) Alpha naphthol (4) Potassium mercuric iodide</p>
41.	<p>Chenopodium oil is used for :</p> <p>(1) Hook worm disease (2) Diarrhoea</p> <p>(3) Cough (4) Malaria</p>

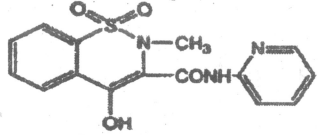
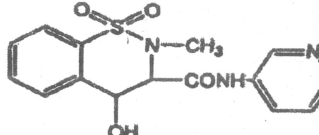
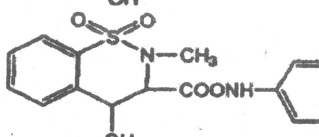
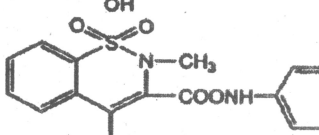
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48.	Acrolein test is given by : (1) Cholesterol (2) Glycerol (3) Sphingol (4) Glycosides
49.	Rutin is : (1) Triterpene glycosides (2) Lactone glycoside (3) Steroidal glycoside (4) Flavonoid glycoside
50.	Marmelosin is active constituents of : (1) Bael (2) Aloe (3) Tragacanth (4) Rhubarb
51.	Which of the following is a prodrug : (1) Hydralazine (2) Clonidine (3) Captopril (4) Enalapril
52.	Atropine is contraindicated in : (1) Pulmonary embolism (2) Digitalis toxicity (3) Iridocyclitis (4) Raised intraocular tension
53.	Noradrenaline is administered by : (1) Subcutaneous injection (2) Intramuscular injection (3) Slow intravenous infusion (4) All of the above

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(10)

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(8)

Question No.	Questions
74.	Hydroxyethyl starch is a : (1) Plasma expander (2) Haemostatic (3) Heparin substitute (4) Bile acid sequestrant
75.	Ethosuximide is : (1) Muscle relaxant (2) Anticonvulsant (3) Antidepressant (4) Hallucinogen
76.	Which is the chemical structure of piroxicam : (1)  (2)  (3)  (4) 
77.	In a ^{13}C NMR spectrum : (1) a triplet is evidence of a CH_3 group presence (2) the signals are between 0 and 10 ppm (3) every C atom generates a signal (4) all of the above

Question No.	Questions
78.	<p>Strongest reducing agent in the electrochemical series is :</p> <p>(1) Li (2) F</p> <p>(3) H₂ (4) All of the above</p>
79.	<p>Freezing point depression is measured by :</p> <p>(1) Beckmann's apparatus (2) Land's Berger's apparatus</p> <p>(3) Antifreeze apparatus (4) None of the above</p>
80.	<p>The head overlap of p-orbitals of two atoms give rise to bond called :</p> <p>(1) sigma bond (2) pi bond</p> <p>(3) ionic bond (4) covalent bond</p>
81.	<p>The polarity of a molecule is expressed by :</p> <p>(1) bond strength (2) dipole moment</p> <p>(3) bond length (4) shape</p>
82.	<p>Standard used for NMR is :</p> <p>(1) Trimethyl Silane (2) Tetramethyl Silane</p> <p>(3) Tetraethyl Silane (4) Triethyl Silane</p>
83.	<p>A conductance cell is calibrated by using :</p> <p>(1) NaCl (2) Hg₂Cl₂</p> <p>(3) KCl (4) Na₂SO₄</p>

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84.	Xenon arc lamp is the source of light in: (1) Spectrofluorimeter (2) Flame Photometer (3) Infrared spectroscopy (4) Colorimetry
85.	Luminescence term applied to : (1) Absorbed radiation (2) Re-emission of absorbed radiation (3) Excited radiation (4) Transmitted radiation
86.	Which one of the following indicator is used in complexometric titration : (1) Phenolphthalein (2) Methyl orange (3) Murexide (4) Methyl Red
87.	The brief duration of action of an ultra short acting barbiturate is the result of : (1) slow rate of metabolism in the liver (2) high degree of binding to plasma proteins (3) low lipid solubility resulting in a minimum concentration in the brain (4) rapid rate of redistribution from the brain owing to its high liposolubility
88.	Which of the following drug is contraindicated in patients taking nitrates : (1) Phenytoin (2) Sildenafil (3) Montelukast (4) Clomipramine

Question No.	Questions
89.	Which one of the following drugs is contraindicated in dengue fever : (1) Aspirin (2) Paracetamol (3) Both (4) None
90.	Dilantin is used as : (1) Skeletal muscle relaxant (2) Analgesic (3) Anti epileptic (4) Antidepressant
91.	Lidocaine is synthesized from : (1) 2,6 Xylidene (2) 2,4 Xylidene (3) o-Toluidine (4) p-Toluidine
92.	One of the following is not an aldose : (1) Glucose (2) Galactose (3) Mannose (4) Fructose
93.	The backbone of nucleic acid structure is constructed by : (1) Peptide bond (2) Glycosidic bond (3) Phosphodiester bridges (4) All of them
94.	The synthesis of Urea occurs in : (1) Kidney (2) Liver (3) Muscle (4) Brain

Question No.	Questions
95.	<p>Ozonolysis of an organic compound gives formaldehyde as one of the products. This confirms the presence of :</p> <p>(1) two ethylenic double bonds (2) a vinyl group (3) an isopropyl group (4) an acetylenic triple bond</p>
96.	<p>Which drug is not having 1-3-diazoles :</p> <p>(1) Clotrimazole (2) Econazole (3) Sulconazole (4) Fluconazole</p>
97.	<p>Calcium levulinate is used as calcium replenisher; chemically it is :</p> <p>(1) calcium-2-oxo pentanoate dehydrate (2) calcium-3-oxo pentanoate dehydrate (3) calcium-4-oxo pentanoate dehydrate (4) calcium-5-oxo pentanoate dehydrate</p>
98.	<p>Which amino acid can form disulphide bonds ?</p> <p>(1) Glycine (2) Proline (3) Glutamate (4) Cysteine</p>
99.	<p>The chemical shift value is :</p> <p>(1) Proportional to total number of protons (2) Not proportional to field strength (3) Ratio of number of protons in each group (4) Proportional to field strength</p>

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100.	<p>Which of the following strategy will increase the polarity and water solubility of a drug ?</p> <ol style="list-style-type: none">(1) Removal of polar functional groups(2) Addition of extra alkyl groups(3) Replacing an aromatic ring with a nitrogen containing heterocyclic ring(4) Replacing an alkyl group with a larger alkyl group
92.	
93.	
94.	

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Used for Junteing
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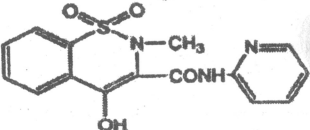
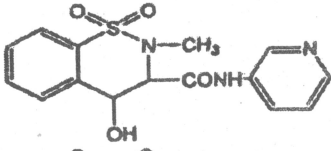
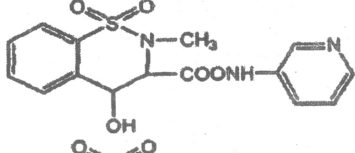
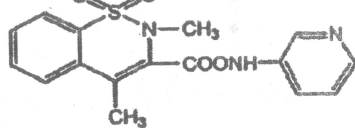
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2.	Quercetin is a : (1) Flavone glycoside (2) Flavanone glycoside (3) Flavonol glycoside (4) None of these
3.	Atropine can be identified by : (1) Gerrard reaction (2) Vitali Morin reaction (3) Van- Urk's test (4) All of these
4.	Cape aloes are obtained from : (1) <i>Aloe ferox</i> (2) <i>Aloe perryi</i> (3) <i>Aloe vera</i> (4) <i>Aloe barbadensis</i>
5.	Quinoline alkaloids are derived from : (1) L - tyrosine (2) L - tryptophan (3) L - lysine (4) None of these
6.	The Isoquinoline ring system is present in which of the following alkaloids ? (1) Nicotine (2) Papaverine (3) Pilocarpine (4) Pelleterine

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7.	Agent obtained from rind of citrus fruits is : (1) Acacia (2) Agar (3) Starch (4) Pectin
8.	Acrolein test is given by : (1) Cholesterol (2) Glycerol (3) Sphingol (4) Glycosides
9.	Rutin is : (1) Triterpene glycosides (2) Lactone glycoside (3) Steroidal glycoside (4) Flavonoid glycoside
10.	Marmelosin is active constituents of : (1) Bael (2) Aloe (3) Tragacanth (4) Rhubarb
11.	Digoxin is contraindicated in the patients suffering from : (1) Angina pectoris (2) Ventricular tachycardia (3) Hypertension (4) Complete heart block
12.	The cardiac response to verapamil and nifedipine in human subjects is : (1) Verapamil causes tachycardia while nifedipine causes bradycardia (2) Both cause bradycardia (3) Verapamil causes bradycardia while nifedipine causes tachycardia (4) Both cause tachycardia

Question No.	Questions
13.	<p>A patient of iron deficiency anaemia has been put on iron therapy. What should be the rate of rise in haemoglobin level of blood so that response is considered adequate ?</p> <p>(1) 0.05 - 0.1g% per week (2) 0.1 - 0.2 g% per week (3) 0.5 - 1.0g% per week (4) None of the above</p>
14.	<p>Hydroxyethyl starch is a :</p> <p>(1) Plasma expander (2) Haemostatic (3) Heparin substitute (4) Bile acid sequestrant</p>
15.	<p>Ethosuximide is :</p> <p>(1) Muscle relaxant (2) Anticonvulsant (3) Antidepressant (4) Hallucinogen</p>
16.	<p>Which is the chemical structure of piroxicam :</p> <p>(1) </p> <p>(2) </p> <p>(3) </p> <p>(4) </p>

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17.	In a ^{13}C NMR spectrum : (1) a triplet is evidence of a CH_3 group presence (2) the signals are between 0 and 10 ppm (3) every C atom generates a signal (4) all of the above
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42.	Atropine is contraindicated in : (1) Pulmonary embolism (2) Digitalis toxicity (3) Iridocyclitis (4) Raised intraocular tension

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43.	<p>Noradrenaline is administered by :</p> <p>(1) Subcutaneous injection (2) Intramuscular injection</p> <p>(3) Slow intravenous infusion (4) All of the above</p>
44.	<p>The following 5-HT receptor is not a G protein coupled receptor :</p> <p>(1) 5-HT1 (2) 5-HT2</p> <p>(3) 5-HT3 (4) 5-HT4</p>
45.	<p>The following is a selective 5-HT₄ agonist :</p> <p>(1) Buspirone (2) Sumatriptan</p> <p>(3) Clozapine (4) Cisapride</p>
46.	<p>Choose the correct statement about sumatriptan :</p> <p>(1) It activates serotonergic neurones in raphe nuclei</p> <p>(2) It tends to suppress both pain and vomiting in migraine</p> <p>(3) It does not carry risk of precipitating coronary vasospasm</p> <p>(4) It is combined with ergotamine for treatment of severe migrain</p>
47.	<p>Which of the following is an irreversible inhibitor of cyclo-oxygenase :</p> <p>(1) Aspirin (2) Phenylbutazone</p> <p>(3) Indomethacin (4) Piroxicam</p>

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48.	Anti-inflammatory dose of aspirin given to diabetics is prone to cause : (1) Hyperglycaemia (2) Hypoglycaemia (3) Ketoacidosis (4) Alkalosis
49.	The NSAIDs aggravate the following diseases except : (1) Hypertension (2) Congestive heart failure (3) Peptic ulcer (4) Chronic gout
50.	Hyperuricaemia is produced by the following drugs except : (1) Ethambutol (2) Pyrazinamide (3) Hydrochlorothiazide (4) Sulfinpyrazone
51.	Codeine is used clinically as : (1) Analgesic (2) Antitussive (3) Antidiarrhoeal (4) All of the above
52.	The most prominent and dose related side effect of salbutamol is : (1) Rise in blood pressure (2) Muscle tremor (3) Hyperglycaemia (4) Central nervous system stimulation

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53.	<p>Sodium cromoglycate has a role in the treatment of the following conditions except :</p> <ol style="list-style-type: none">(1) Chronic bronchial asthma(2) Chronic urticaria(3) Chronic allergic rhinitis(4) Chronic allergic conjunctivitis				
54.	<p>Hydrocortisone exerts the following actions :</p> <ol style="list-style-type: none">(1) Increases both K^+ and Ca^{2+} excretion(2) Decreases both K^+ and Ca^{2+} excretion(3) Decreases K^+ but increases Ca^{2+} excretion(4) Increases K^+ but decreases Ca^{2+} excretion				
55.	<p>Which hormone acts through a cytoplasmic receptor :</p> <table border="0" style="width: 100%;"><tr><td style="width: 50%;">(1) Calcitriol</td><td style="width: 50%;">(2) Prolactin</td></tr><tr><td>(3) Vasopressin</td><td>(4) None of the above</td></tr></table>	(1) Calcitriol	(2) Prolactin	(3) Vasopressin	(4) None of the above
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(3) Vasopressin	(4) None of the above				
56.	<p>Circulating testosterone levels in men are elevated during treatment with :</p> <table border="0" style="width: 100%;"><tr><td style="width: 50%;">(1) Danazol</td><td style="width: 50%;">(2) Finasteride</td></tr><tr><td>(3) Ketoconazole</td><td>(4) Flutamide</td></tr></table>	(1) Danazol	(2) Finasteride	(3) Ketoconazole	(4) Flutamide
(1) Danazol	(2) Finasteride				
(3) Ketoconazole	(4) Flutamide				

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57.	Estrogen therapy can worsen the following associated conditions except : (1) Migraine (2) Cholelithiasis (3) Acne vulgaris (4) Endometriosis
58.	A macrolide antibiotic used as powerful immunosuppressive agents is : (1) Clarithromycin (2) Azithromycin (3) Erythromycin (4) Tacrolimus
59.	Select the correct statement about benzodiazepines (BZDs) : (1) All BZDs facilitate GABA mediated Cl^- influx into neurons (2) Different BZDs exert the same degrees of hypnotic, anxiolytic and anticonvulsant actions (3) The BZD receptor is homogeneous at all neuronal sites (4) The muscle relaxant action of BZDs is not blocked by flumazenil
60.	Gray baby syndrome is the side effect of : (1) Chloramphenicol (2) Penicillin (3) Paracetamol (4) Ibuprofen
61.	Softening point of Lipsticks can be determined by : (1) Breaking test method (2) Ring and ball method (3) Strain test (4) Peroxide value test

Question No.	Questions
62.	Which one is the suitable method for potent drug mixing ? (1) Trituration (2) Tumbling (3) Spatulation (4) Geometric dilution
63.	Staphylococcus aureus is used for the IP assay of : (1) Bleomycin (2) Carbenicillin (3) Kanamycin (4) Doxycycline
64.	In gels the term 'magma' is referred to a : (1) Single phase gel (2) Two phase gel (3) Jellies (4) Gels having low viscosity
65.	Licenses which are made in Form 24-A and issued in Form 25-A are : (1) Repackaging licenses (2) New drug license (3) Loan license (4) None of above
66.	What are known as balsams ? (1) Resins dissolved in volatile oil (2) A mixture of volatile oils with sesquiterpenes (3) Resins dissolved in water (4) Polysaccharide mixed with volatile oil
67.	Saponin containing drugs are used as : (1) Laxative (2) Bitter tonic (3) Expectorant (4) Emetic

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Question No.	Questions
88.	Which of the following drug is contraindicated in patients taking nitrates : (1) Phenytoin (2) Sildenafil (3) Montelukast (4) Clomipramine
89.	Which one of the following drugs is contraindicated in dengue fever : (1) Aspirin (2) Paracetamol (3) Both (4) None
90.	Dilantin is used as : (1) Skeletal muscle relaxant (2) Analgesic (3) Anti epileptic (4) Antidepressant
91.	The common base skeleton of physiologically active ergoline alkaloids is : (1) Isolysergic acid (2) Clavorubine (3) Lysergic acid (4) 2-phenylbenzopyrane
92.	Which of the following vegetable drugs contains ajoene ? (1) Valerianae radix (2) Allii sativi bulbus (3) Agrimoniae herba (4) Echinaceae radix
93.	Ginseng saponins are of the _____ Series : (1) Lupine (2) Ursane (3) Dammarane (4) Abietane

Question No.	Questions
94.	Choose the anthraquinone containing drug : (1) Betulae folium (2) Graminis rhizome (3) Rhei rhizome (4) Herniariae herba
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SET-"Z"

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

(CPG-EE-2018)

Subject : PHARMACEUTICAL SCIENCE

Code

C

*used for Jumbong
set verification;*

10299

Sr. No. _____

Time : 1½ Hours

Total Questions : 100

Max. Marks : 100

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

Name : _____ Date of Birth : _____

Father's Name : _____ Mother's Name : _____

Date of Examination : _____

(Signature of the candidate)

(Signature of the Invigilator)

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Central Contr.

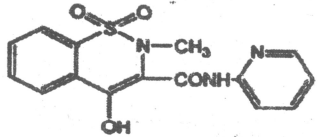
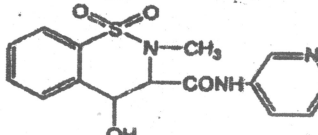
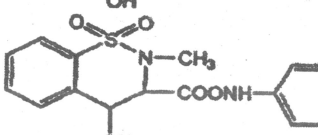
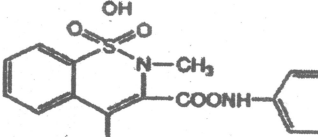
Question No.	Questions
1.	Softening point of Lipsticks can be determined by : (1) Breaking test method (2) Ring and ball method (3) Strain test (4) Peroxide value test
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8.	The volatile oils consist of a mixture of..... (1) Oxygen free mono- and diterpenes (2) Aliphatic and cyclic mono - and triterpenes (3) Aliphatic and cyclic mono - and sesquiterpenes and phenyl-propane derivatives (4) Highly oxygenated mono- and diterpenes
9.	The iridoids are : (1) Constituents of volatile oils (2) Starting unit of the tannin biogenesis (3) Precursor of biosynthesis of saponins (4) Precursors of the biogenesis of certain alkaloids
10.	Choose the right test for identification of anthraquinones : (1) Marquis test (2) Froehde test (3) Liebermann-Burchard test (4) Bornträeger test
11.	Which of the following is a prodrug : (1) Hydralazine (2) Clonidine (3) Captopril (4) Enalapril

Question No.	Questions
12.	<p>Atropine is contraindicated in :</p> <p>(1) Pulmonary embolism (2) Digitalis toxicity</p> <p>(3) Iridocyclitis (4) Raised intraocular tension</p>
13.	<p>Noradrenaline is administered by :</p> <p>(1) Subcutaneous injection (2) Intramuscular injection</p> <p>(3) Slow intravenous infusion (4) All of the above</p>
14.	<p>The following 5-HT receptor is not a G protein coupled receptor :</p> <p>(1) 5-HT1 (2) 5-HT2</p> <p>(3) 5-HT3 (4) 5-HT4</p>
15.	<p>The following is a selective 5-HT₄ agonist :</p> <p>(1) Buspirone (2) Sumatriptan</p> <p>(3) Clozapine (4) Cisapride</p>
16.	<p>Choose the correct statement about sumatriptan :</p> <p>(1) It activates serotonergic neurones in raphe nuclei</p> <p>(2) It tends to suppress both pain and vomiting in migraine</p> <p>(3) It does not carry risk of precipitating coronary vasospasm</p> <p>(4) It is combined with ergotamine for treatment of severe migrain</p>

Question No.	Questions
17.	Which of the following is an irreversible inhibitor of cyclo-oxygenase : (1) Aspirin (2) Phenylbutazone (3) Indomethacin (4) Piroxicam
18.	Anti-inflammatory dose of aspirin given to diabetics is prone to cause : (1) Hyperglycaemia (2) Hypoglycaemia (3) Ketoacidosis (4) Alkalosis
19.	The NSAIDs aggravate the following diseases except : (1) Hypertension (2) Congestive heart failure (3) Peptic ulcer (4) Chronic gout
20.	Hyperuricaemia is produced by the following drugs except : (1) Ethambutol (2) Pyrazinamide (3) Hydrochlorothiazide (4) Sulfinpyrazone
21.	The polarity of a molecule is expressed by : (1) bond strength (2) dipole moment (3) bond length (4) shape
22.	Standard used for NMR is : (1) Trimethyl Silane (2) Tetramethyl Silane (3) Tetraethyl Silane (4) Triethyl Silane

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Question No.	Questions
33.	<p>A patient of iron deficiency anaemia has been put on iron therapy. What should be the rate of rise in haemoglobin level of blood so that response is considered adequate ?</p> <p>(1) 0.05 - 0.1g% per week (2) 0.1 - 0.2 g% per week (3) 0.5 - 1.0g% per week (4) None of the above</p>
34.	<p>Hydroxyethyl starch is a :</p> <p>(1) Plasma expander (2) Haemostatic (3) Heparin substitute (4) Bile acid sequestrant</p>
35.	<p>Ethosuximide is :</p> <p>(1) Muscle relaxant (2) Anticonvulsant (3) Antidepressant (4) Hallucinogen</p>
36.	<p>Which is the chemical structure of piroxicam :</p> <p>(1) </p> <p>(2) </p> <p>(3) </p> <p>(4) </p>

Question No.	Questions
37.	In a ^{13}C NMR spectrum : (1) a triplet is evidence of a CH_3 group presence (2) the signals are between 0 and 10 ppm (3) every C atom generates a signal (4) all of the above
38.	Strongest reducing agent in the electrochemical series is : (1) Li (2) F (3) H_2 (4) All of the above
39.	Freezing point depression is measured by : (1) Beckmann's apparatus (2) Land's Berger's apparatus (3) Antifreeze apparatus (4) None of the above
40.	The head overlap of p-orbitals of two atoms give rise to bond called : (1) sigma bond (2) pi bond (3) ionic bond (4) covalent bond
41.	Shrinkage of gel by extrusion of liquid is called : (1) Syneresis (2) Dilatancy (3) Plasticity (4) Diaphoresis
42.	List of diseases that a drug should not claim to cure is given in Schedule : (1) J (2) L (3) C (4) H

Question No.	Questions
48.	<p>Schedule O is related to :</p> <p>(1) Standards for Disinfected fluids (2) Standards for ophthalmic preparations (3) Requirement of factory premises (4) Standards for cosmetics</p>
49.	<p>The most important barrier to drug transport when applied topically to the skin is :</p> <p>(1) Dermis (2) Stratum corneum (3) Sweat glands (4) Hair follicles</p>
50.	<p>The toughness of a material can be reduced by:</p> <p>(1) heating the material (2) treating the material with gas (3) treating the material with liquid nitrogen (4) none of these</p>
51.	<p>The common base skeleton of physiologically active ergoline alkaloids is :</p> <p>(1) Isolysergic acid (2) Clavorubine (3) Lysergic acid (4) 2-phenylbenzopyrane</p>
52.	<p>Which of the following vegetable drugs contains ajoene ?</p> <p>(1) Valerianae radix (2) Allii sativi bulbus (3) Agrimoniae herba (4) Echinaceae radix</p>

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59.	The senna-emodin aglycones and senna-emodin glycosides are _____ derivatives : (1) Tetraterpenes (2) Monoterpenes with labdane structure (3) Pseudoguaianolides (4) Anthraquinones
60.	Dragendorff's reagent is composed of : (1) Picric acid (2) Potassium bismuth iodide (3) Alpha naphthol (4) Potassium mercuric iodide
61.	How many grams of a drug are required to prepare 500 ml of a 1:2500 solution ? (1) 1.25 (2) 0.4 (3) 0.02 (4) 0.2
62.	The value that shows the time to kill 90% of microorganisms present in a food sample is called : (1) Z value (2) M value (3) D value (4) E value

Question No.	Questions
73.	Atropine can be identified by : (1) Gerrard reaction (2) Vitali Morin reaction (3) Van- Urk's test (4) All of these
74.	Cape aloes are obtained from : (1) <i>Aloe ferox</i> (2) <i>Aloe perryi</i> (3) <i>Aloe vera</i> (4) <i>Aloe barbadensis</i>
75.	Quinoline alkaloids are derived from : (1) L - tyrosine (2) L - tryptophan (3) L - lysine (4) None of these
76.	The Isoquinoline ring system is present in which of the following alkaloids ? (1) Nicotine (2) Papaverine (3) Pilocarpine (4) Pelleterine
77.	Agent obtained from rind of citrus fruits is : (1) Acacia (2) Agar (3) Starch (4) Pectin
78.	Acrolein test is given by : (1) Cholesterol (2) Glycerol (3) Sphingol (4) Glycosides

Question No.	Questions
79.	Rutin is : (1) Triterpene glycosides (2) Lactone glycoside (3) Steroidal glycoside (4) Flavonoid glycoside
80.	Marmelosin is active constituents of : (1) Bael (2) Aloe (3) Tragacanth (4) Rhubarb
81.	Lidocaine is synthesized from : (1) 2,6 Xylidene (2) 2,4 Xylidene (3) o-Toluidine (4) p-Toluidine
82.	One of the following is not an aldose : (1) Glucose (2) Galactose (3) Mannose (4) Fructose
83.	The backbone of nucleic acid structure is constructed by : (1) Peptide bond (2) Glycosidic bond (3) Phosphodiester bridges (4) All of them
84.	The synthesis of Urea occurs in : (1) Kidney (2) Liver (3) Muscle (4) Brain

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85.	<p>Ozonolysis of an organic compound gives formaldehyde as one of the products. This confirms the presence of :</p> <p>(1) two ethylenic double bonds (2) a vinyl group (3) an isopropyl group (4) an acetylenic triple bond</p>
86.	<p>Which drug is not having 1-3-diazoles :</p> <p>(1) Clotrimazole (2) Econazole (3) Sulconazole (4) Fluconazole</p>
87.	<p>Calcium levulinate is used as calcium replenisher; chemically it is :</p> <p>(1) calcium-2-oxo pentanoate dehydrate (2) calcium-3-oxo pentanoate dehydrate (3) calcium-4-oxo pentanoate dehydrate (4) calcium-5-oxo pentanoate dehydrate</p>
88.	<p>Which amino acid can form disulphide bonds ?</p> <p>(1) Glycine (2) Proline (3) Glutamate (4) Cysteine</p>
89.	<p>The chemical shift value is :</p> <p>(1) Proportional to total number of protons (2) Not proportional to field strength (3) Ratio of number of protons in each group (4) Proportional to field strength</p>

Question No.	Questions
90.	<p>Which of the following strategy will increase the polarity and water solubility of a drug ?</p> <ul style="list-style-type: none">(1) Removal of polar functional groups(2) Addition of extra alkyl groups(3) Replacing an aromatic ring with a nitrogen containing heterocyclic ring(4) Replacing an alkyl group with a larger alkyl group
91.	<p>Codeine is used clinically as :</p> <ul style="list-style-type: none">(1) Analgesic(2) Antitussive(3) Antidiarrhoeal(4) All of the above
92.	<p>The most prominent and dose related side effect of salbutamol is :</p> <ul style="list-style-type: none">(1) Rise in blood pressure(2) Muscle tremor(3) Hyperglycaemia(4) Central nervous system stimulation
93.	<p>Sodium cromoglycate has a role in the treatment of the following conditions except :</p> <ul style="list-style-type: none">(1) Chronic bronchial asthma(2) Chronic urticaria(3) Chronic allergic rhinitis(4) Chronic allergic conjunctivitis

Question No.	Questions
94.	<p>Hydrocortisone exerts the following actions :</p> <p>(1) Increases both K^+ and Ca^{2+} excretion</p> <p>(2) Decreases both K^+ and Ca^{2+} excretion</p> <p>(3) Decreases K^+ but increases Ca^{2+} excretion</p> <p>(4) Increases K^+ but decreases Ca^{2+} excretion</p>
95.	<p>Which hormone acts through a cytoplasmic receptor :</p> <p>(1) Calcitriol (2) Prolactin</p> <p>(3) Vasopressin (4) None of the above</p>
96.	<p>Circulating testosterone levels in men are elevated during treatment with :</p> <p>(1) Danazol (2) Finasteride</p> <p>(3) Ketoconazole (4) Flutamide</p>
97.	<p>Estrogen therapy can worsen the following associated conditions except :</p> <p>(1) Migraine (2) Cholelithiasis</p> <p>(3) Acne vulgaris (4) Endometriosis</p>
98.	<p>A macrolide antibiotic used as powerful immunosuppressive agents is :</p> <p>(1) Clarithromycin (2) Azithromycin</p> <p>(3) Erythromycin (4) Tacrolimus</p>

Question No.	Questions
99.	<p>Select the correct statement about benzodiazepines (BZDs) :</p> <ul style="list-style-type: none">(1) All BZDs facilitate GABA mediated Cl^- influx into neurons(2) Different BZDs exert the same degrees of hypnotic, anxiolytic and anticonvulsant actions(3) The BZD receptor is homogeneous at all neuronal sites(4) The muscle relaxant action of BZDs is not blocked by flumazenil
100.	<p>Gray baby syndrome is the side effect of :</p> <ul style="list-style-type: none">(1) Chloramphenicol(2) Penicillin(3) Paracetamol(4) Ibuprofen

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(CPG-EE-2018)

Subject : PHARMACEUTICAL SCIENCE

*used for Jindong car
verification*

10304

Sr. No. _____

Code

D

Time : 1½ Hours

Total Questions : 100

Max. Marks : 100

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

Name : _____ Date of Birth : _____

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(Signature of the candidate)

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Confidential
SEAL

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20.	Dragendorffs reagent is composed of : (1) Picric acid (2) Potassium bismuth iodide (3) Alpha naphthol (4) Potassium mercuric iodide

Question No.	Questions
36.	What are known as balsams ? (1) Resins dissolved in volatile oil (2) A mixture of volatile oils with sesquiterpenes (3) Resins dissolved in water (4) Polysaccharide mixed with volatile oil
37.	Saponin containing drugs are used as : (1) Laxative (2) Bitter tonic (3) Expectorant (4) Emetic
38.	The volatile oils consist of a mixture of..... (1) Oxygen free mono- and diterpenes (2) Aliphatic and cyclic mono - and triterpenes (3) Aliphatic and cyclic mono - and sesquiterpenes and phenyl-propane derivatives (4) Highly oxygenated mono- and diterpenes
39.	The iridoids are : (1) Constituents of volatile oils (2) Starting unit of the tannin biogenesis (3) Precursor of biosynthesis of saponins (4) Precursors of the biogenesis of certain alkaloids

Question No.	Questions
45.	Which hormone acts through a cytoplasmic receptor : (1) Calcitriol (2) Prolactin (3) Vasopressin (4) None of the above
46.	Circulating testosterone levels in men are elevated during treatment with : (1) Danazol (2) Finasteride (3) Ketoconazole (4) Flutamide
47.	Estrogen therapy can worsen the following associated conditions except : (1) Migraine (2) Cholelithiasis (3) Acne vulgaris (4) Endometriosis
48.	A macrolide antibiotic used as powerful immunosuppressive agents is : (1) Clarithromycin (2) Azithromycin (3) Erythromycin (4) Tacrolimus
49.	Select the correct statement about benzodiazepines (BZDs) : (1) All BZDs facilitate GABA mediated Cl^- influx into neurons (2) Different BZDs exert the same degrees of hypnotic, anxiolytic and anticonvulsant actions (3) The BZD receptor is homogeneous at all neuronal sites (4) The muscle relaxant action of BZDs is not blocked by flumazenil

Question No.	Questions
50.	Gray baby syndrome is the side effect of : (1) Chloramphenicol (2) Penicillin (3) Paracetamol (4) Ibuprofen
51.	The polarity of a molecule is expressed by : (1) bond strength (2) dipole moment (3) bond length (4) shape
52.	Standard used for NMR is : (1) Trimethyl Silane (2) Tetramethyl Silane (3) Tetraethyl Silane (4) Triethyl Silane
53.	A conductance cell is calibrated by using : (1) NaCl (2) Hg ₂ Cl ₂ (3) KCl (4) Na ₂ SO ₄
54.	Xenon arc lamp is the source of light in: (1) Spectrofluorimeter (2) Flame Photometer (3) Infrared spectroscopy (4) Colorimetry
55.	Luminescence term applied to : (1) Absorbed radiation (2) Re-emission of absorbed radiation (3) Excited radiation (4) Transmitted radiation

Question No.	Questions
61.	Chenopodium oil is used for : (1) Hook worm disease (2) Diarrhoea (3) Cough (4) Malaria
62.	Quercetin is a : (1) Flavone glycoside (2) Flavanone glycoside (3) Flavonol glycoside (4) None of these
63.	Atropine can be identified by : (1) Gerrard reaction (2) Vitali Morin reaction (3) Van- Urk's test (4) All of these
64.	Cape aloes are obtained from : (1) <i>Aloe ferox</i> (2) <i>Aloe perryi</i> (3) <i>Aloe vera</i> (4) <i>Aloe barbadensis</i>
65.	Quinoline alkaloids are derived from : (1) L - tyrosine (2) L - tryptophan (3) L - lysine (4) None of these
66.	The Isoquinoline ring system is present in which of the following alkaloids ? (1) Nicotine (2) Papaverine (3) Pilocarpine (4) Pelleterine

Question No.	Questions
67.	Agent obtained from rind of citrus fruits is : (1) Acacia (2) Agar (3) Starch (4) Pectin
68.	Acrolein test is given by : (1) Cholesterol (2) Glycerol (3) Sphingol (4) Glycosides
69.	Rutin is : (1) Triterpene glycosides (2) Lactone glycoside (3) Steroidal glycoside (4) Flavonoid glycoside
70.	Marmelosin is active constituents of : (1) Bael (2) Aloe (3) Tragacanth (4) Rhubarb
71.	Which of the following is a prodrug : (1) Hydralazine (2) Clonidine (3) Captopril (4) Enalapril
72.	Atropine is contraindicated in : (1) Pulmonary embolism (2) Digitalis toxicity (3) Iridocyclitis (4) Raised intraocular tension

Question No.	Questions
73.	Noradrenaline is administered by : (1) Subcutaneous injection (2) Intramuscular injection (3) Slow intravenous infusion (4) All of the above
74.	The following 5-HT receptor is not a G protein coupled receptor : (1) 5-HT1 (2) 5-HT2 (3) 5-HT3 (4) 5-HT4
75.	The following is a selective 5-HT ₄ agonist : (1) Buspirone (2) Sumatriptan (3) Clozapine (4) Cisapride
76.	Choose the correct statement about sumatriptan : (1) It activates serotonergic neurones in raphe nuclei (2) It tends to suppress both pain and vomiting in migraine (3) It does not carry risk of precipitating coronary vasospasm (4) It is combined with ergotamine for treatment of severe migraine
77.	Which of the following is an irreversible inhibitor of cyclo-oxygenase : (1) Aspirin (2) Phenylbutazone (3) Indomethacin (4) Piroxicam

Question No.	Questions
78.	Anti-inflammatory dose of aspirin given to diabetics is prone to cause : (1) Hyperglycaemia (2) Hypoglycaemia (3) Ketoacidosis (4) Alkalosis
79.	The NSAIDs aggravate the following diseases except : (1) Hypertension (2) Congestive heart failure (3) Peptic ulcer (4) Chronic gout
80.	Hyperuricaemia is produced by the following drugs except : (1) Ethambutol (2) Pyrazinamide (3) Hydrochlorothiazide (4) Sulfinpyrazone
81.	Shrinkage of gel by extrusion of liquid is called : (1) Syneresis (2) Dilatancy (3) Plasticity (4) Diaphoresis
82.	List of diseases that a drug should not claim to cure is given in Schedule : (1) J (2) L (3) C (4) H
83.	Cell wall of gram negative bacteria possesses the following characteristics: (1) Lacks lipids (2) Lacks techoic acid (3) Lacks carbohydrates (4) Lacks proteins
84.	Source of agar is : (1) Gelidium melesi (2) Gelidium amansii (3) Gelidium laminari (4) Gelidium topicana

Question No.	Questions
85.	Carr's index is used to determine : (1) Powder flow (2) Particle size (3) Elasticity (4) Polymorphism
86.	Sink condition is necessary in the process of absorption because : (1) It increases the disintegration of the dosage form (2) It increases the dissolution process of the drug by maintaining the concentration gradient (3) It increases the process of absorption by facilitating the transfer of drug across the cell membrane (4) None of the above
87.	The properties of solutions containing surface active agents change sharply over a narrow concentration range and is called as : (1) Critical Micelle concentration (2) Ionic concentration (3) Hydrogen ion concentration (4) Surface tension
88.	Schedule O is related to : (1) Standards for Disinfected fluids (2) Standards for ophthalmic preparations (3) Requirement of factory premises (4) Standards for cosmetics

Question No.	Questions				
98.	<p>In nail polish, the polymer used as a film-former is :</p> <ol style="list-style-type: none">(1) Cellulose acetate phthalate(2) Hydroxypropyl methyl cellulose(3) Nitrocellulose(4) Polylactic acid				
99.	<p>Auto-immunity disease are caused by :</p> <ol style="list-style-type: none">(1) Sequestrated antigen(2) Cross reaction in circulating antigen(3) Genetic abnormality(4) All of these				
100.	<p>Mean Residence Time (MRT) is :</p> <table border="0" data-bbox="284 1093 1465 1249"><tr><td>(1) $AUMC/C_p$</td><td>(2) $AUMC/AUC$</td></tr><tr><td>(3) $AUC/AUMC$</td><td>(4) $1/AUMC$</td></tr></table>	(1) $AUMC/C_p$	(2) $AUMC/AUC$	(3) $AUC/AUMC$	(4) $1/AUMC$
(1) $AUMC/C_p$	(2) $AUMC/AUC$				
(3) $AUC/AUMC$	(4) $1/AUMC$				



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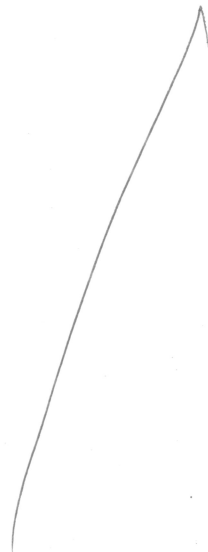
↓ B

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B.

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Jan