QP Code: 1494

JSS UNIVERSITY, MYSURU

First Semester B Pharm (SS) Examination - November 2015

Subject: Human Anatomy and Physiology- I

Time: 3 hours Max. Marks: 75

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

Section A: Multiple Choice Questions	20 Marks
Section B: Essay	20 Marks
Section C: Short Notes	35 Marks

Section A

Note:

1. Answer ALL the questions in the OMR Sheet given by using BLACK/BLUE BALL POINT PEN ONLY.
2. Choose ONE CORRECT ANSWER from the 4 choices given for each question.
3. Maximum time for answering Section A is 20 minutes.
4. At the end of 20 minutes, submit the OMR sheet to the invigilator.

Multiple Choice Questions 20 x 1 = 20 Marks

1 The power house of a cell is:

a) Mitochondria.

b) Golgi complex.

c) Nucleus.

d) Ribosome.

2 Study of muscular system is called:

a) Mycology.

b) Myology.

c) Mythology.

d) Histology.

3 Total number of cervical vertebrae:

a) 12.

b) 07.

c) 120.

d) 57.

4 Outer covering of bone is called:

a) Pericardium.

b) Periosteum.

c) Pia matter.

d) Peritoneum.

5 Longest bone in human body is:

a) Femur.

b) Tibia.

c) Fibula.

d) Radius.

6 Ilium, ischium and pubis bones combined to form:

a) Shoulder.

b) Innominate bone.

c) Sternum.

d) Coccyx.

7 The centre for temperature regulation is present in the:

a) Thalamus.

b) Hypothalamus.

c) Epithalamus.

d) Subthalamus.

8 Collar bone is:

a) Clavicle.

b) Sternum.

c) Scapula.

d) Xiphoid.

9 Cones are concerned with:

a) Scotopic vision.

b) Dark adaptative vision.

c) Colour vision.

d) Night vision.

10 The total number of vertebrae in human being is:

a) 38.

b) 33.

c) 40.

d) 32.

11 Cell drinking is known as:

a) Phagocytosis.

b) Pinocytosis.

c) Diffusion.

d) Osmosis.

12 Thumb is an example of:

a) Gliding joint.

b) Ball and socket joint.

c) Pivot joint.

d) Saddle joint.

13 Organ of Corti is a part of:

a) External ear.

b) Inner ear.

c) Middle ear.

d) Ear canal

14 Zona glomerulosa of adrenal cortex contains:

a) Noradrenaline.

b) Mineralocorticoids.

c) Glucocorticoids.

d) Androgenic steroid.

15 Adrenaline binds to _____ receptors.

a) Cholinergic

b) Adrenergic

c) Dopaminergic

d) Histaminergic

16 Which hormone of the following maintains calcium level in blood?

a) Growth hormone.

b) Parathormone.

c) Antidiuretic hormone.

d) Luteinizing hormone.

17 The cells responsible for secretion of mucin are called:

a) Goblet cells.

b) Glial cells.

c) Mast cells.

d) Plasma cells.

18 Which cells of pancreas secrete insulin?

a) Alpha cells.

b) Beta cells.

c) Gamma cells.

d) Delta cells.

19 All the glands of endocrine system are controlled by:

a) Adrenal gland.

b) Thyroid gland.

c) Pituitary gland.

d) Salivary gland.

20 In a reflex arc, the connector of neuron is present in the:

a) Spinal cord.

b) Grey matter of spinal cord.

c) Receptor.

d) White matter of spinal cord.

Section B

ESSAY (Answer any two questions) **2x10= 20 Marks**

1 Explain the transport process across the cell membrane.

2 Describe the structure and functions of skin.

3 Explain structure and functions of spinal cord.

Section C

SHORT NOTES (Answer any seven questions) **7x5= 35 Marks**

4 Classify tissues. Add a note on muscular tissue.

5 Physiology of muscular contraction.

6 Ventricles of brain.

7 Physiology of hearing.

8 Functions of sympathetic nervous system.

9 Draw a neat labeled diagram of eye.

10 Local hormones.

11 Functions of thyroid gland.

12 Functions of thalamus.

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QP Code: 1432

JSS UNIVERSITY, MYSURU

First Semester B. Pharm (SS) Examination - November 2015

Subject: Pharmaceutical Analysis- I

Time: 3 hours Max. Marks: 75

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

Section A: Multiple Choice Questions 20 Marks
Section B: Essay 20 Marks
Section C: Short Notes 35 Marks

Section A

Note:

1. Answer ALL the questions in the OMR Sheet given by using BLACK/BLUE BALL POINT PEN ONLY.
2. Choose ONE CORRECT ANSWER from the 4 choices given for each question.
3. Maximum time for answering Section A is 20 minutes.
4. At the end of 20 minutes, submit the OMR sheet to the invigilator.

Multiple Choice Questions **20 x 1 = 20 Marks**

1 Which statement is true for glacial acetic acid as a non-aqueous solvent?

a) The strength of organic acids dissolved in it increase.

b) The strength of bases dissolved in it increase.

c) Sulphuric acid behaves as a bivalent acid in glacial acetic acid medium.

d) Perchloric acid behaves as a strong acid in glacial acetic acid medium.

2 In which of the following acid/base titrations, the equivalence point **CANNOT** be determined in an accurate manner?

a) Strong acid/strong base.

b) Strong acid/weak base.

c) Weak acid/strong base.

d) Weak acid/weak base.

3 Example for reference electrode:

a) Hydrogen electrode.

b) Glass electrode.

c) Iron electrode.

d) Nickel electrode.

4 The sharpness of an EDTA titration endpoint:

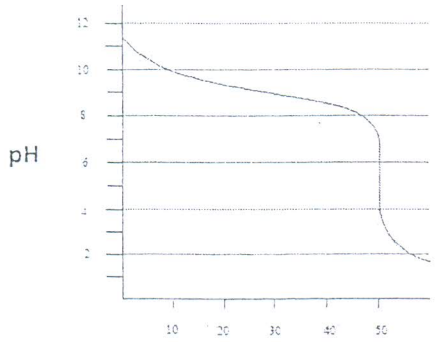
a) Decrease with increasing pH.

b) Increase with increasing pH.

c) Decrease with decreasing pH.

d) Increase with decreasing pH.

5 Which one of the following combinations does the titration curve represent?



Amount of Solution added in ml

a) Addition of a strong base to a weak acid.

b) Addition of a weak base to a strong acid.

c) Addition of a strong acid to a weak base.

d) Addition of a weak acid to a strong base.

6 Silver-silver chloride electrode consist of:

a) Metallic silver coated with a layer of potassium chloride.

b) Polished platinum wire coated with silver chloride.

c) Silver wire coated with a layer of silver chloride.

d) Two electrodes, one of silver and other silver chloride.

7 The titration error in the titration of a weak acid with a strong base increases as the:

a) Strength of the acid increases.

b) Strength of the acid decreases.

c) Concentration of the acid increases.

d) Concentration of the acid decreases.

8 Ilkovic equations in polarography relates to :

a) Migration current.

b) Diffusion current.

c) Residual current.

d) Faradic current.

9 Water in thermolabile or volatile compounds may more conveniently be determined by a volumetric procedure known as:

a) Volhard's method.

b) Complexometric method.

c) Mohr's method.

d) Karl-Fisher method.

10 The electrode potential of the standard hydrogen electrode is :

a) 0.

b) 1.

c) 100.

d) 10.

11 Conductivity of the solution of electrolysis is:

a) Temperature independent.

b) Temperature dependent.

c) Pressure dependent.

d) Pressure independent.

12 Potassium permanganate is commonly used in _____:

a) Alkalimetric titration.

b) Chromatography.

c) Iodometry.

d) Volumetric titration.

13 Quantitative analysis by polarography is based on:

a) Electrode potential.

b) Half-wave potential.

c) Migration current.

d) Limiting current.

14 Non-aqueous titration can be carried out by:

a) Potentiometry.

b) Conductometry.

c) Turbidometry.

d) Amperometry.

15 Oxidation reduction reaction is involved in:

a) Precipitation titration.

b) Redox titration.

c) Complexometric titration.

d) Acid-base titration.

16 Potentiometer is used to measure:

a) Concentration.

b) Electromotive force.

c) pH.

d) Temperature.

17 The end point of complexometric titration is detected instrumentally by:

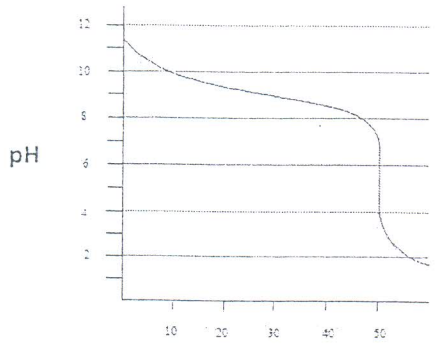
a) pH meter.

b) Polarimeter.

c) Colorimeter.

d) Potentiometer.

5 Which one of the following combinations does the titration curve represent?



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b) Addition of a weak base to a strong acid.

c) Addition of a strong acid to a weak base.

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b) Redox titration.

c) Complexometric titration.

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a) Concentration.

b) Electromotive force.

c) pH.

d) Temperature.

17 The end point of complexometric titration is detected instrumentally by:

a) pH meter.

b) Polarimeter.

c) Colorimeter.

d) Potentiometer.

18 Platinum electrode is an important component of :

a) Karl- Fisher titrator.

b) Polarography.

c) Lactometer.

d) Colorimeter.

19 Chemical formula for Mohr's salt is:

a) $Fe_2O_3.H_2O$.

b) $(NH_4)_2FeSO_4.6H_2O$.

c) $(NH)_2SO_4FeSO_4.6H_2O$.

d) $(NH_4)_2SO_4Fe_2O_3.6H_2O$.

20 $KMnO_4$ is a good:

a) Oxidizing agent.

b) Reducing agent.

c) Internal indicator.

d) External indicator.

Section B

ESSAY (Answer any two questions) **2x10=20 Marks**

1 Explain the sources and types of errors. How are the errors minimized? (5+5)

2 Describe the theories of indicators and selections of indicators for acid base titration. What are mixed indicators and universal indicators? Write their uses. (5+3+2)

3 Explain in detail about the principle and steps involved in gravimetric analysis. How is barium sulphate estimated? (5+5)

Section C

SHORT NOTES (Answer any seven questions) **7x5= 30 Marks**

4 Write the preparation and standardization of 0.1M potassium permanganate.

5 Write a note on non- aqueous solvent.

6 Classify complexometric titration. How is magnesium sulphate estimated?

7 Describe the concept of oxidation and reduction titration.

8 Write the principle and application of redox titration.

9 Differentiate between cerimetry and iodimetry.

10 Describe Ilkovic equation.

11 Explain the working principle of dropping mercury electrode.

12 Write the principles of indicator electrode.

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QP Code:1433

JSS UNIVERSITY, MYSURU

First Semester B. Pharm (SS) Examination - November 2015

Subject: Pharmaceutics- I

Time: 3 hours Max. Marks: 75

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

Section A: Multiple Choice Questions	20 Marks
Section B: Essay	20 Marks
Section C: Short Notes	35 Marks

Section A

Note:

1. Answer ALL the questions in the OMR Sheet given by using BLACK/BLUE BALL POINT PEN ONLY.
2. Choose ONE CORRECT ANSWER from the 4 choices given for each question.
3. Maximum time for answering Section A is 20 minutes.
4. At the end of 20 minutes, submit the OMR sheet to the invigilator.

Multiple Choice Questions **20 x 1 = 20 Marks**

1 ----------is an official compendium:

a) Indian pharmacopoeia 2014

b) Martindale: The complete drug reference

c) Remington's pharmaceutical sciences

d) The Merck index

2 Following is an example for monophasic dosage form:

a) Suspensions.

b) Emulsions.

c) Creams.

d) Gargles.

3 Suppositories are categorized as:

a) Semisolid dosage forms.

b) Liquid dosage forms.

c) Solid dosage forms.

d) Parenteral dosage forms.

4 First edition of British Pharmacopoeia was published in the year:

a) 1953.

b) 1914.

c) 1898.

d) 1864.

5 Example for physical incompatibility:

a) Polymerization.

b) Degradation.

c) Decarboxylation.

d) Insolubility.

6 Example for a self-preservative:

a) Methyl paraben IP.

b) Butylated hydroxyl toluene IP.

c) Simple syrup IP

d) Benzalkonium chloride IP.

7 One of the following products can either be monophasic or biphasic in nature:

a) Enema.

b) Mouth wash.

c) Lotions.

d) Suspensions.

8 Ointments should be free of :

a) Preservatives.

b) Ointment base.

c) Drug.

d) Gritty particles.

9 Therapeutic incompatibility is because of:

a) Antagonism.

b) Immiscibility.

c) Liquefaction.

d) Degradation.

10 Clark's formula is used to calculate dose on the basis of:

a) Age.

b) Body weight.

c) Gender.

d) Body surface area.

11 _____should not be applied on a broken skin.

a) Lotions

b) Bulk powders

c) Liniments

d) Emulsions

12 Deflocculated and flocculated are related to:

a) Solution.

b) Emulsions.

c) Suspensions.

d) Liniments.

13 One of the following is **NOT** a part of prescription:

a) Patient history.

b) Subscription.

c) Signature.

d) Superscription.

14 Ingredient required to prepare stable emulsions:

a) Co-solvent.

b) Electrolyte.

c) Emulgent.

d) Thickening agent.

15 Test required to conduct evaluation of suspensions:

a) Particle count.

b) Zeta potential.

c) Volume per mL.

d) Density of product.

16 Incompatibility is less in:

a) Suspensions.

b) Elixirs.

c) Emulsions.

d) Powders.

17 Which of the following would be considered as an oropharyngeal formulation?

a) Syrup.

b) Elixir.

c) Gargle.

d) Enema.

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c) Liquefaction.

d) Degradation.

10 Clark's formula is used to calculate dose on the basis of:

a) Age.

b) Body weight.

c) Gender.

d) Body surface area.

18 Which one of these ingredients used in the dusting powder should be sterilized?

a) Starch.

b) Magnesium stearate.

c) Lactose.

d) Kaolin.

19 Vehicle present is the linctus is:

a) Syrup.

b) Purified water.

c) Hydroalcoholic solution.

d) Aromatic waters.

20 Naturally occurring emulsion is:

a) Egg yolk.

b) Latex.

c) Milk.

d) Honey.

Section B

ESSAY (Answer any two questions) **2x10= 20 Marks**

1 Describe the history and development of pharmacy education in India. Write the salient features of Indian Pharmacopoeia. (5+5)

2 Define and classify incompatibility. Explain therapeutic incompatibility with four examples. (3+7)

3 Define and classify pharmaceutical powders. Explain effervescent powders and eutectic mixture with example. (3+7)

Section C

SHORT NOTES (Answer any seven questions) **7x5= 35 Marks**

4 Explain the importance of dosage form.

5 Define posology. Calculate the dose of a drug for a ten year old boy, if the adult dose in 500 mg.

6 Compare and contrast medical and surgical dusting powders.

7 Write a note on Mandl's paint with uses.

8 Differentiate flocculated and deflocculated suspensions.

9 Explain enemas with examples. Write their uses.

10 What are suppositories? What are the different bases used for suppository preparation?

11 Differentiate paste, creams and gels.

12 Define and classify ointments. Add a note on absorption bases.

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QP Code:1434

JSS UNIVERSITY, MYSURU

First Semester B. Pharm (SS) Examination - November 2015

Subject: Pharmaceutical Inorganic Chemistry

Time: 3 hours

Max. Marks: 75

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

Section A: Multiple Choice Questions	20 Marks
Section B: Essay	20 Marks
Section C: Short Notes	35 Marks

Section A

Note:

1. Answer ALL the questions in the OMR Sheet given by using BLACK/BLUE BALL POINT PEN ONLY.
2. Choose ONE CORRECT ANSWER from the 4 choices given for each question.
3. Maximum time for answering Section A is 20 minutes.
4. At the end of 20 minutes, submit the OMR sheet to the invigilator.

Multiple Choice Questions

20 x 1 = 20 Marks

1 In the limit test for chloride_____ is used for the formation of silver chloride:

a) Dilute nitric acid

b) Dilute hydrochloric acid

c) Barium sulphate reagent

d) Dilute ammonia

2 A seeding agent used in the limit test for sulphate:

a) Barium sulphate.

b) Alcohol.

c) Potassium sulphate.

d) Barium chloride.

3 The formation of deep reddish purple color in the limit test for iron is due to :

a) Ferric thioglycolate.

b) Ferrous thioglycolate.

c) Ferric glycolate.

d) Ferrous glycolate.

4 In the limit test for lead, the color of lead-dithizone complex in chloroform is:

a) Violet.

b) Green.

c) Yellow.

d) Red.

5 Proton-donor concept was given by:

a) Ostwald.

b) Lewis.

c) Arrhenius.

d) Bronsted-Lowry.

6 Daily requirement of iron for women is:

a) 5 mg.

b)10 mg.

c) 15 mg.

d) 20 mg.

7 Low pH of blood causes:

a) Acidosis.

b) Alkalosis.

c) Systemic effect.

d) Gastric ulcer.

8 Sodium fluoride is used as:

a) Antacid.

b) Acidifying agent.

c) Antioxidant.

d) Anticaries agent.

9 Antacids act by mechanism of:

a) Anti-oxidation.

b) Neutralisation.

c) Complexation.

d) Protein precipitation.

10 Light kaolin is a native hydrated:

a) Magnesium silicate.

b) Aluminium silicate.

c) Calcium silicate.

d) Zinc silicate.

11 Tincture of iodine is:

a) Aqueous iodine solution.

b) Strong iodine solution.

c) Weak iodine solution.

d) Povidone-iodine.

12 Ferrous sulphate is assayed by _____method of titration.

a) Redox

b) Neutralisation

c) Complexation

d) Gravimetry

13 _____ is administered in heavy metal poisoning:

a) Sodium phosphate

b) Magnesium sulphate

c) Activated charcoal

d) Copper sulphate

14 Bentonite is use as :

a) Coloring agent.

b) Suspending agent.

c) Diluent.

d) Antioxidant.

15 Astringents exhibit following pharmacological actions **EXCEPT :**

a) Coagulation.

b) Anti-inflammatory.

c) Antimicrobial property.

d) Antioxidant property.

16 Hydrogen peroxide is used as:

a) Antiseptic.

b) Acidifying agent.

c) Protective.

d) Antioxidant.

17 1 RAD is equivalent to:

a) $10^{-3}JKg^{-1}$.

b) $10^{-5}JKg^{-1}$.

c) $10^{-2}JKg^{-1}$.

d) $10^{-8}JKg^{-1}$.

18 The use of Rose Bengal Sodium I 131 :

a) Study of potassium ion exchange.

b) Liver scan.

c) Plasma volume determination.

d) Brain scanning.

19 Iodine -131 has a half life of:

a) 8 days.

b) 10 days.

c) 12 days.

d) 14 days.

20 SI unit of radioactivity is:

a) Curie.

b) Roentgen.

c) Becquerel.

d) Gray.

Section B

ESSAY (Answer any two questions) **2 x 10= 20 Marks**

1 Describe the types of buffers in pharmaceutical system. Write Henderson-Hesselbalch equation and give its importance. (5+5)

2 Explain the principle with chemical reaction and procedure involved in the limit test for iron. Add a note on importance of limit test. (7+3)

3 a) Explain the mechanisms of antimicrobial agents. (5+5)
b) Write the preparation and assay of hydrogen peroxide.

Section C

SHORT NOTES (Answer any seven questions) **7x5= 35 Marks**

4 Describe the principle and procedure involved in the limit test for heavy metals.

5 Describe the role of fluoride in the treatment of dental caries.

6 Write the molecular formula, properties and medicinal uses of chlorinated lime.

7 Write the molecular formula, properties and medicinal uses of sodium potassium tartarate.

8 Write the method of preparation and assay of copper sulphate.

9 Write the method of preparation, assay and uses of ferrous sulphate.

10 Write storage condition and precautions for radioactive substance.

11 Write the applications of radiopharmaceuticals.

12 Describe the measurement of radioactivity of radiopharmaceuticals.

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JSS UNIVERSITY, MYSURU

First Semester - B Pharm (SS) - Examination May 2016

Subject: Human Anatomy and Physiology- I

Time: 3 hours **Max. Marks: 75**

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

Section A: Multiple Choice Questions	20 Marks
Section B: Long Essay	20 Marks
Section C: Short Essay	35 Marks

Section A

Note:

1. Answer ALL the questions in the OMR Sheet given by using BLACK/BLUE BALL POINT PEN ONLY
2. Choose the ONE CORRECT ANSWER from the 4 choices given for each question.
3. Maximum time for answering Section – A is 20 minutes.
4. At the end of 20 minutes submit the OMR sheet to the Invigilator.

Multiple Choice Questions **20 x 1 = 20 Marks**

1 The structures that are composed of two or more different types of tissues and have specific functions and having a recognizable shape are known as:

a) Tissue
b) Organ
c) System
d) Viscera

2 Ascending and descending colons are:

a) Ipsilateral
b) Contralateral
c) Distal
d) Proximal

3 The hereditary unit of a cell is called:

a) Chromosomes
b) Gene
c) Polysomes
d) Ribosomes

4 The molecular signature of a cell is called:

a) Glycolipid
b) Glycocalyx
c) Glycoprotein
d) Cholesterol

5 The factor which DOES NOT affect the rate of diffusion is:

a) Temperature

b) Surface area

c) Diffusion distance

d) Mass

6 Which of the following is the function of lysosomes?

a) Digest substances that enter a cell

b) Carry out autophagy

c) Implement autolysis

d) Synthesize protein

7 The number of genes contained in mitochondrial DNA are:

a) 23

b) 37

c) 38

d) 39

8 Which one of the following directs the synthesis of protein in eukaryotic cell?

a) mRNA

b) rRNA

c) tRNA

d) snRNA

9 Somatic cell which is having flagellum:

a) Epithelial cell

b) Nerve cell

c) Sperm cell

d) Retina

10 Thick filament of the skeletal muscle fiber:

a) Actin

b) Myosin

c) Troponin

d) Titin

11 Grey matter is composed of _____ and white matter is composed of _____

a) Cell bodies, myelinated axons

b) Interneurons, synapses

c) Non-myelinated axons, cell bodies

d) Sensory neurons, motor neurons

12 The most important hormone that regulates the calcium exchange in human body:

a) Thyroid hormone

b) Melatonin

c) Parathyroid hormone

d) Epinephrine

13 Sudoriferous gland secretes:

a) Oil

b) Sweat

c) Wax

d) Saliva

14 The type of muscle that lack striations is called as:

a) Skeletal muscle

b) Smooth muscle

c) Cardiac muscle

d) Pennate muscle

15 One among the facial bones is:

a) Temporal

b) Frontal

c) Parietal

d) Palate

16 Which among the following is not a neurotransmitter?

a) Acetylcholine

b) Insulin

c) GABA

d) Glycine

17 Emotional responses to odour is associated with:

a) Reticular nuclei

b) Habenular nuclei

c) Preoptic

d) Midline nuclei

18 Central nervous system consists of:

a) Brain and somatic nervous system

b) Brain and autonomic nervous system

c) Brain only

d) Brain and spinal cord

19 In which of the cell organelles, steroids & fatty acids are synthesized?

a) Ribosomes

b) Rough endoplasmic reticulum

c) Smooth endoplasmic reticulum

d) Golgi complex

20 Glucocorticoids are having the following functions EXCEPT:

a) Glucose formation

b) Lipolysis

c) Depression of immune response

d) Increase the bone density

Section B

ESSAY (Answer any two questions) **2x10= 20 Marks**

1 Explain the anatomy of eye ball with a neat diagram and describe three steps in image formation. (4+6)

2 Classify epithelial tissues. Write in detail about glandular epithelium. (3+7)

3 Write the classification of joints, and explain in detail about the synovial joints. (4+6)

Section C

SHORT NOTES (Answer any seven questions) **7x5= 35 Marks**

4 Explain any four functions of muscular tissues.

5 Write in detail about the internal anatomy of spinal cord with a neat diagram.

6 Describe the structure and functions of cerebellum.

7 Explain about the cholinergic neurons and its receptors.

8 Explain the structure and functions of skin.

9 Explain the histology of adrenal cortex. Enumerate the events of renin-angiotensin-aldosterone (RAA pathway).

10 Write a note on active transport mechanisms.

11 Explain the endocrine hormones of pancreas and its functions.

12 Explain the parts of eukaryotic cell with a neat and labeled diagram.

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JSS UNIVERSITY, MYSURU

First Semester - B. Pharm (SS) - Examination May 2016

Subject: Pharmaceutical Analysis- I

Time: 3 hours **Max. Marks: 75**

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

Section A: Multiple Choice Questions	20 Marks
Section B: Long Essay	20 Marks
Section C: Short Essay	35 Marks

Section A

Note:

1. Answer ALL the questions in the OMR Sheet given by using BLACK/BLUE BALL POINT PEN ONLY
2. Choose the ONE CORRECT ANSWER from the 4 choices given for each question.
3. Maximum time for answering Section – A is 20 minutes.
4. At the end of 20 minutes, submit the OMR sheet to the Invigilator.

Multiple Choice Questions **20 x 1 = 20 Marks**

1 Standardization of oxalic acid is carried out using:
   a) Potassium hydrogen pthalate
   b) Sodium pthalate
   c) Potassium chlorate
   d) Ammonium chloride

2 The term accuracy is _____ to original value:
   a) Intraday repeatable
   b) Interday repeatable
   c) Inter and intraday repeatable
   d) Nearest value

3 In burette reading of 10.06mL:
   a) One zero is insignificant figure
   b) Two zeros are insignificant figure
   c) One zero is significant figure
   d) Two zeros are significant figure

4 A molar solution is number of _____ per 1000mL:
   a) Milligram
   b) Gram
   c) Kilogram
   d) Moles

5 The following solvent can be used in non-aqueous titration EXCEPT:

a) Toluene

b) Benzene

c) Acetic acid

d) Hydrochloric acid

6 Methyl orange used in ephedrine hydrochloride assay is prepared in:

a) Water

b) Acetone

c) Perchloric acid

d) Methanol

7 The following is an example of weakly basic substance:

a) KOH

b) NaOH

c) KCl

d) Sodium benzoate

8 Phenolphthalein changes to pink color due to:

a) Acidic pH

b) Basic pH

c) Neutral pH

d) Solubility nature

9 Sodium chloride IV infusion is assayed by:

a) Alkalimetry

b) Precipitation titration

c) Redox titration

d) Oxidation

10 Generally ammonium thiocyanate is standardized by:

a) Potassium iodide

b) Potassium iodate

c) Iodine

d) Silver nitrate

11 Werner's co-ordination number is dependent on:

a) Small groups present

b) All atoms present

c) Valancy

d) Steric factors

12 Dimercaprol is a _____agent in complexometry:

a) Masking agent

b) Demasking agent

c) Primary titrant

d) Secondary titrant

13 The following is NOT used in oxidation-reduction titration:

a) Self indicator

b) External indicator

c) Internal indicator

d) Universal indicator

14 Reducing substances generally:

a) Accept proton

b) Accept neutron

c) Liberate proton

d) Liberate neutron

15 Name of indicator used in bromatometry is:

a) Methylen blue

b) Gallamine blue

c) Crystal violet

d) Universal

16 The following is a standard in dichrometry:

a) Chromic acid

b) Potassium dichromate

c) Diphenylamine

d) Sulphonic acid

17 Conductivity is a measure of:

a) Voltage

b) Resistivity

c) Property of ion

d) Solubility of ion

18 Second derivative potentiometric end point detection is a plot of volume versus:

a) $\Delta E/ \Delta V$

b) $\Delta pH/ \Delta V$

c) $\Delta V/ \Delta E^2$

d) $\Delta E^2/ \Delta V^2$

19 In Ilkovic equation D represents:

a) Diameter

b) Diffusion

c) Dimension

d) Diffusion coefficient

20 The salt bridge of glass electrode used in non-aqueous titration is prepared in:

a) Methanol

b) Hexane

c) Chloroform

d) Toluene

Section B

ESSAY (Answer any two questions) **2x10=20 Marks**

1. Explain determinate errors and methods to eliminate it.
2. Explain the principle, types of solvents and end point detection in non-aqueous titration. (4+3+3)
3. Describe Mohr's method of titration with two examples (5+5)

Section C

SHORT NOTES (Answer any seven questions) **7x5= 35 Marks**

4. Write a note on significant figures.
5. Explain acid base indicators.
6. Describe principles of gravimetry.
7. Write the concepts of oxidation reduction process.
8. How is iodine prepared and standardized?
9. Explain assay of ferrus sulphate.
10. Explain the working of dropping mercuric electrode with a diagram.
11. What are the applications of potentiometry?
12. Write a note on conductometric titration.

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JSS UNIVERSITY, MYSURU

First Semester - B. Pharm (SS) - Examination May 2016

Subject: Pharmaceutics- I

Time: 3 hours **Max. Marks: 75**

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

Section A: Multiple Choice Questions	20 Marks
Section B: Long Essay	20 Marks
Section C: Short Essay	35 Marks

Section A

Note:

1. Answer ALL the questions in the OMR Sheet given by using BLACK/BLUE BALL POINT PEN ONLY
2. Choose the ONE CORRECT ANSWER from the 4 choices given for each question.
3. Maximum time for answering Section – A is 20 minutes.
4. At the end of 20 minutes, submit the OMR sheet to the Invigilator.

Multiple Choice Questions **20 x 1 = 20 Marks**

1 Posology is the science of:
   a) Dosage form
   b) Dose
   c) Drug action
   d) Administration of drugs.

2 Alkaloidal slats with salicylates is the example for:
   a) Physical incompatibility
   b) Therapeutic incompatibility
   c) Chemical incompatibility
   d) Delayed incompatibility

3 The first edition of British pharmacopoeia was published in year:
   a) 1866
   b) 1864
   c) 1856
   d) 1800

4 In non-flocculated suspension, the particles exist as _____entities:
   a) Complex
   b) Compound
   c) Separate
   d) Multiple

5 When the action and duration of action of one drug is diminished by other drug is called as:

a) Idiosyncrasy

b) Antagonism

c) Synergism

d) Habituation

6 Which of the following is required to be isotonic?

a) Linctus

b) Throat paint

c) Nasal drops

d) Gargle

7 Which of the following is for vaginal application?

a) Liniment

b) Pessary

c) Cones

d) Bougies

8 Cachets are also known as _____capsules:

a) Hardened

b) Water

c) Soft

d) Solgel

9 The first Indian pharmacopoeia was published in:

a) 1966

b) 1955

c) 1945

d) 1856

10 A formulation that should be applied with friction:

a) Lotion

b) Ointment

c) Paste

d) Liniment

11 A gallon is _____ fluid ounces:

a) 160

b) 170

c) 180

d) 190

12 The most suitable vehicle for throat paints:

a) Glycerin

b) Water

c) Alcohol

d) Poly ethylene glycol

13 Saccharine is _____ times sweeter than sucrose:

a) 2

b) 10

c) 100

d) 500

14 Ointment prepared by chemical reaction method:

a) Whitefield ointment

b) Compound methyl salicylate ointment

c) Sulphur ointment

d) Non-staining iodine ointment

15 Theobroma oil is the example for:

a) Aqueous bases

b) Synthetic fat bases

c) Oleaginous bases

d) Emulsifying bases

16 Example of eutectic mixtures:

a) Menthol and kaolin

b) Calcium carbonate and camphor

c) Camphor and menthol

d) Camphor and kaolin

17 Meaning of recipe:

a) Take thou

b) Take it

c) Take you

d) Through it

18 Directions of the prescriber to the pharmacist regarding the type and compounding of dosage form along with number of doses is called:

a) Superscription

b) Inscription

c) Subscription

d) Signatura

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a) Glycerin

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b) Inscription

c) Subscription

d) Signatura

19 Otic dosage form is administered through:

a) Ears

b) Nose

c) Eyes

d) Mouth

20 One fluid ounce is approximately equal to:

a) 5 ml

b) 15 ml

c) 10 ml

d) 30 ml

Section B

ESSAY (Answer any two questions) **2x10= 20 Marks**

1. Define posology. Explain the factors which influence dose of the drug. (2+8)
2. Define suppository. Explain the preparation of suppositories by compression method with diagram.
3. Define incompatibilities. Write the classification and methods to overcome the physical incompatibilities with suitable examples.

Section C

SHORT NOTES (Answer any seven questions) **7x5= 35 Marks**

4. Write briefly about the handling of prescriptions.
5. Write a note on development of profession of pharmacy.
6. Describe simple syrup. IP.
7. Write a note on isotonic solutions.
8. Explain the evaluation of a suspension.
9. Write a note on eutectic mixtures with suitable examples.
10. Write a note on elixir. Give an example
11. Write a note on effervescent powders.
12. Describe the instability of emulsions.

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JSS UNIVERSITY, MYSURU

First Semester - B. Pharm (SS) - Examination May 2016

Subject: Pharmaceutical Inorganic Chemistry

Time: 3 hours | Max. Marks: 75

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

Section A: Multiple Choice Questions	20 Marks
Section B: Long Essay	20 Marks
Section C: Short Essay	35 Marks

Section A

Note:

1. Answer ALL the questions in the OMR Sheet given by using BLACK/BLUE BALL POINT PEN ONLY
2. Choose the ONE CORRECT ANSWER from the 4 choices given for each question.
3. Maximum time for answering Section – A is 20 minutes.
4. At the end of 20 minutes, submit the OMR sheet to the Invigilator.

Multiple Choice Questions — 20 x 1 = 20 Marks

1 Thioglycolic acid is added in the limit test for iron:
   a) To make the solution acidic
   b) To dissolve the impurities
   c) To reduce the ferric ions to ferrous ions
   d) To convert the ferrous ions to ferric ions

2 Which of the following impurity may cause decrease in production of RBCs and WBCs?
   a) Chlorides
   b) Sulphates
   c) Iron
   d) Arsenic

3 The limit test for chlorides in sodium bicarbonate sample is carried out by:
   a) Adding concentrated nitric acid
   b) Adding concentrated hydrochloric acid
   c) Adding glacial acetic acid
   d) Adding concentrated sulphuric acid

4 There is a small aperture in the end of the long tube of arsenic limit apparatus:
   a) To remove the water vapors formed
   b) To remove the arsine gas which is formed in the apparatus
   c) To remove the impurities present
   d) To remove undissolved gases

5 The normal blood plasma concentration of potassium ions is:

a) 3.5-5 mEq/litre

b) 5.5-6.5 mEq/litre

c) 130-140 mEq/litre

d) 135-145 mEq/litre

6 In the CNS, the inhibitory action of glycine and GABA depends on the entry of one of the following ions:

a) Calcium ions

b) Chloride ions

c) Potassium ions

d) Sodium ions

7 Which of the following is the major extracellular cation?

a) Sodium

b) Calcium

c) Potassium

d) Magnesium

8 Which of the following is called as desensitizing agent in dental products?

a) Zinc oxide

b) Calcium carbonate

c) Strontium chloride

d) Sodium fluoride

9 Which of the following compounds is used in the treatment of achlorhydria?

a) Dilute nitric acid

b) Dilute hydrochloric acid

c) Dilute sulphuric acid

d) Dilute acetic acid

10 Which of the following is a combination of antacids?

a) Digene

b) Gelusil

c) Aludrox

d) Gelusil MPS

11 Magnesium sulphate can be used as:

a) Cathartic

b) Anti-microbial

c) Emetic

d) Astringent

12 Chlorinated lime can be assayed by:

a) Acid base titration method

b) Complexometric titration method

c) Iodometric titration method

d) Precipitation titration method

13 Ammonium chloride can be assayed by:

a) Formal titration method

b) Redox titration method

c) Complexometric titration method

d) Gravimetry method

14 Potassium iodide can be used as:

a) Emetic

b) Expectorant

c) Antidote

d) Astringent

15 Compound used in the treatment of cyanide poisoning:

a) Sodium thiosulphate

b) Copper sulphate

c) Sodium potassium tartarate

d) Activated charcoal

16 Zinc sulphate can be used as:

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d) Cathartic

17 Which of the following is used as unit to measure radioactivity:

a) Curie

b) Lbs

c) Psi

d) Cusecs

18 Sodium iodide (^{131}I) isotope is used in the treatment of:

a) Thyroid disorders

b) Cancers involving skin

c) Cancers involving stomach and intestine

d) Brain disorders

19 Which of the following rays have more penetrating power?

a) The alpha rays

b) The beta rays

c) The gamma rays

d) Microwaves

20 Sodium iodohippurate I-131 injection is used in the diagnosis of:

a) Renal functions

b) Liver functions

c) Heart functions

d) Intestinal cancers

Section B

ESSAY (Answer any two questions) **2 x 10= 20 Marks**

1. Explain the principle along with reactions involved in the limit test for (5+5)

   a) Iron

   b) Heavy metals

2. List the standard buffers used in pharmaceutical preparations. What are the methods available to adjust isotonicity? (5+5)

3. Classify inorganic antimicrobial agents based on their mechanism of action. Explain the principle involved in the assay of chlorinated lime. (4+6)

Section C

SHORT NOTES (Answer any seven questions) **7x5= 35 Marks**

4. Explain the limit test for sulphates in potassium permanganate sample. Write the composition of barium sulphate reagent in this limit test.
5. Give the blood plasma normal levels and physiological roles of the following ions:

   a) Sodium b) Calcium
6. What are non-systemic antacids? Give examples. What is the reason for adding simethicone in antacid formulation? (3+2)
7. Describe the preparation, principle involved in the assay and therapeutic use of ammonium chloride. (1+3+1)
8. Explain the preparation, principle involved in the assay and use of sodium thiosulphate.
9. Define haematinic. Give the preparation and principle involved in the assay of one haematinic.
10. Write a note on hazards and precautions to be taken during the handling of radiopharmaceuticals.
11. Give therapeutic applications of radiopharmaceuticals.
12. Write a note on measurement of radioactivity.

****

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