

## Odd Semester (Back Paper) Examination, 2017-18

## B.PHARMA. (SEMESTER-I)

## PROFESSIONAL COMMUNICATION-I

Time: 03:00 Hours

Max Marks : 100

Note : Attempt all questions.

1. Write short notes on **any two** of the following in about 100 words each : (2x4=8)
  - (a) Nonverbal mode of communication.
  - (b) Effective communication.
  - (c) Cross cultural communication.
  - (d) Group communication.
2. (a) Rewrite the following sentence in active voice (**any two**) : (2x4=8)
  - (i) He was praised by the teacher.
  - (ii) The tone was destroyed by an earthquake.
  - (iii) The injured were taken to the hospital by the hospital by the fireman.  
(b) Rewrite the following in passive voice (**any two**) : (2x4=8)
  - (i) The hostess received us.
  - (ii) The manager will give you a ticket.
  - (iii) The minister was welcomed by the people.
3. Insert the correct tense of verb in the following : (4)
  - (a) He was where he ..... find work.
  - (b) I asked him what ..... i do.
  - (c) We eat so that we ..... live.
  - (d) He said that he ..... Do it.
4. (a) Fill in the blanks with suitable preposition . (4x2=8)
  - (i) Divide the money equally .....the two of you.
  - (ii) I have not slept properly .....over a week.
  - (iii) Look for your slippers.....your bed.
  - (iv) I returned from Mumbai the day.....yesterday.

- (b) Choose the correct option (**any four**) : (4x2=8)
- (i) Neither of the fans.....working .(is/are)
  - (ii) Each of the runners ..... (was/were) going to top speed.
  - (iii) I will call you when my father ..... (come/comes) back.
  - (iv) The politician,along with the newsmen , .....(is/are)coming to meet the prime minister.
  - (v) He joined our company 10 years ago and still .....(work/works)for us.

5. Attempt **any two** : (2x10=20)
- (a) What are the barriers to communication? Elaborate briefly each category of barriers.
  - (b) "A wise amount of wit and humour can make the communication more interesting and versatile." Discuss.
  - (c) What is communication? Discuss its need and importance in profession.
6. Write a letter to your friend describing the summer holidays. (10)

**OR**

Write a letter to your uncle greeting him on his 50<sup>th</sup> birthday.

7. Write an essay on **any one** : (8)
- (a) Green environment
  - (b) Pharmacy as a profession
8. Attempt **any two** : (2x6=12)
- (a) Discuss how to use thesaurus.
  - (b) Define synonyms. Five suitable example.
  - (c) What is communication? Discuss its need and importance in profession.
9. Write short notes : (3x2=6)
- (a) Listening skills
  - (b) Decision making
  - (c) Attitude

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## Odd Semester Examination, 2017-18

## B.PHARMA. (SEMESTER-I)

## HUMAN ANATOMY AND PHYSIOLOGY-I

Time: 03:00 Hours

Max Marks : 75

Note: Attempt all questions.

1. Attempt all questions :

(20×1= 20)

- (a) All of the following substance move in and out of cells, except :
- (i) Nutrients
  - (ii) Gas
  - (iii) Waste
  - (iv) Blood
- (b) Mitosis begins in the :
- (i) Cell nucleus
  - (ii) Peptide chain
  - (iii) Double helix
  - (iv) Cytoplasm
- (c) The following are example of connective tissue, except :
- (i) Bone
  - (ii) Tendons
  - (iii) Skeletal muscle
  - (iv) Cartilage
- (d) All of the following are the functions of skin, except :
- (i) Vitamin D synthesis
  - (ii) Protection
  - (iii) Temperature regulation
  - (iv) Vitamin C synthesis
- (e) Nails are hard plates of dead epidermal cells that have been converted into :
- (i) Keratin
  - (ii) Melanin
  - (iii) Collagen
  - (iv) Calcium



- (f) Which of the following is not a flat bone:
- (i) Rib
  - (ii) Frontal bone
  - (iii) Scapula
  - (iv) Vertebra
- (g) Which of the following is a bone of upper limb :
- (i) Tibia
  - (ii) Hyoid
  - (iii) Radius
  - (iv) Sternum
- (h) Flat bones lack which of the following :
- (i) Medullary cavity
  - (ii) Spongy bone
  - (iii) Peristoneum
  - (iv) Bone marrow
- (i) Ball and socket joint allow for movement along :
- (i) Two axis
  - (ii) All axis
  - (iii) Three axis
  - (iv) One axis
- (j) Which motion are allowed by wrist joint :
- (i) Flexion
  - (ii) Extension
  - (iii) Circular motion
  - (iv) All of the above
- (k) A neuron receive signals at its :
- (i) Axon terminal
  - (ii) Dendrites
  - (iii) Nucleus
  - (iv) Axon
- (l) Cranial nerve X innervates which body parts :
- (i) Ear
  - (ii) Trapezium muscle
  - (iii) Stomach
  - (iv) Tongue

- (m) The ophthalmic, maxillary and mandibular nerves are all branches of the :
- Trigeminal nerve
  - Facial nerve
  - Abducens nerve
  - Glossopharyngeal nerve
- (n) Neutrophils perform which of the following function :
- Produce antibodies
  - Phagocytize bacteria
  - Destroy infected body cell
  - Deliver carbon dioxide to the live
- (o) Platelets stop blood loss by:
- Collecting and adhering at the site of damage
  - Triggering a reaction that promotes the formation of fibrin threads
  - Forming a platelets plug
  - All of the above
- (p) The following are examples of lymphatic vessels and tissue, except:
- Thoracic duct
  - Spleen
  - Thymus
  - Thyroid
- (q) The stem cells that give rise to  $\beta$ - lymphocytes are produced in:
- Thymus gland
  - Compact bone
  - Red bone marrow
  - Spleen
- (r) Which parts of the heart's conduction system sends the impulse that begins the process of conduction:
- AN node
  - SA node
  - Bundle of his
  - Purkinje fibers
- (s) The layer of heart wall primarily responsible for the heart's pumping action is the:
- Myocardium
  - Endocardium
  - Pericardium
  - Epicardium



- (t) Cardiac output is determined from which of the following factors :
- (i) Heart rate and BP
  - (ii) Oxygen consumption and carbon dioxide secretion
  - (iii) Stroke volume and heart rate
  - (iv) Ventricular contraction and venous return

1. Attempt **any two** questions :

(10×2= 20)

- (a) Define tissue. Classify them and explain in detail about epithelial tissue and connective tissue.
- (b) Discuss anatomy of skeletal muscle. Explain in detail physiology of muscle contraction.
- (c) Draw a neat labeled diagram of conduction system of heart. Explain in detail cardiac cycle and electrocardiogram.

2. Attempt **any seven** questions :

(5×7= 35)

- (a) Write note on regulation of blood pressure.
- (b) Draw structure of ear and describe its functions.
- (c) Write note on cranial nerves and its functions.
- (d) Describe significance of blood and its functions.
- (e) Write about lymph circulation and functions of lymphatic tissue.
- (f) Describe structure and function of pivot and gliding joint.
- (g) Write note on structure and functions of skin.
- (h) Explain the mechanism of blood clotting.
- (i) Explain the events of cell division.

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**Odd Semester (Back Paper) Examination, 2017-18****B.PHARMA. (SEMESTER-I)****COMPUTER FUNDAMENTAL AND PROGRAMMING****Time: 03:00 Hours****Max Marks : 100****Note :** Attempt **all** questions.

1. Attempt **any four** of the following : (5x4=20)
- (a) Explain Block Diagram of a Computer with suitable diagram?
  - (b) Explain Network topologies with examples.
  - (c) Differentiate between RAM and ROM.
  - (d) What are different types of Computer Networks?
  - (e) Explain about Input and Output Devices with examples.
2. Attempt **any four** of the following : (5x4=20)
- (a) What is data base? How is it different from file?
  - (b) Write a short note on Operating System.
  - (c) Differentiate between data and information.
  - (d) Explain System Software and Application software.
  - (e) Differentiate between Internet and Intranet.
3. Answer **any two** of the following : (10x2=20)
- (a) What are formatting features supported in MS word?
  - (b) Describe various functions and formulae's available in MS Excel.
  - (c) What are the uses of MS Excel in Pharmacy field?
4. Answer **any two** of the following : (10x 2=20)
- (a) Describe how a database can be created in MS Access.
  - (b) Briefly explain about design templates and slide show in MS Power Point.
  - (c) Explain shortcut keys used in MS Word and MS Excel.
5. Answer **any two** of the following : (10x2=20)
- (a) Describe use of internet in Pharmaceutical research.
  - (b) In what ways, computers are helpful in pharmaceutical industry?
  - (c) How computer can be used in diagnosing diseases?

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## Odd Semester Examination, 2017-18

## B.PHARMA. (SEMESTER-I)

## PHARMACEUTICAL ANALYSIS-I

Time: 03:00 Hours

Max Marks : 75

Note : Attempt **all** questions, each questions carries equal marks.

## (OBJECTIVE ANSWER TYPE QUESTIONS)

1. Attempt **all** parts : (10x2=20)
- (a) \_\_\_\_\_ is defined as number of moles of solute present per Kg of solution.
  - (b) Henderson Hassel Balch equation is \_\_\_\_\_.
  - (c) According to Lewis theory acid is \_\_\_\_\_.
  - (d) Nerst equation is \_\_\_\_\_.
  - (e) Ilkovic equation is \_\_\_\_\_.
  - (f) \_\_\_\_\_ may be defined as the concordance of a series of measurement of same quantity.
  - (g) \_\_\_\_\_ agent protects some component of analyte from reacting with EDTA.
  - (h) \_\_\_\_\_ titrations are carried out for estimation of drugs containing primary amino group.
  - (i) \_\_\_\_\_ test are quantitative or semi- quantitative test designed to identify and control small quantities of impurities present in the substance.
  - (j) \_\_\_\_\_ Solution is one which maintains its pH even upon addition of small amounts of acid or base.

## (LONG ANSWER TYPE QUESTIONS)

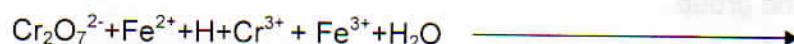
2. Attempt **any two** question. (10x2=20)
- (a) What do you understand by Potentiometric titrations? Give a brief account on Nerst equation. Explain the two electrochemical cells that are used commonly for analysis. Give their diagrammatic sketch with proper explanation.



- (b) Write short notes on **any two** : (5x2=10)
- (i) Solubility product and precipitation of compound.
  - (ii) Co-precipitation and post precipitation.
  - (iii) Fajans method of precipitation titration.
- (c) Explain briefly the Polarographic method. Describe dropping mercury electrode with the help of a neat and labeled diagrammatic sketch.

**(SHORT ANSWER TYPE QUESTIONS)**

3. Attempt **any seven** questions : (7x5=35)
- (a) Explain Lowry–Bronsted concept of acids and base. Using the concept, explain why
  - (b) HCl is a strong acid and CH<sub>3</sub>COOH is a weak acid in aqueous medium.
  - (c) What is the basic principle and applications of diazotization titrations?
  - (d) Discuss limit test for Arsenic.
  - (e) Describe briefly the theory and mechanism of Complex metric titrations and Warner's co-ordination.
  - (f) What is gravimetry ? Explain the significance of dilution and heating of sample before precipitation in any gravimetric exercise.
  - (g) Balance the following redox reaction and explain how you will calculate the equivalent weight of Cr<sub>2</sub>O<sub>7</sub><sup>2-</sup> and Fe<sup>2+</sup> ions?



- (h) Describe Ceric Sulphate titrations.
- (i) Differentiate between Iodometry and Iodimetry
- (j) What is the equivalent weight of potassium permanganate in acidic and alkaline mediums?

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**Odd Semester (Back Paper) Examination, 2017-18****B.PHARMA. (SEMESTER-I)****INORGANIC PHARMACEUTICAL CHEMISTRY-I****Time: 03:00 Hours****Max Marks : 100****Note :** Attempt **all** questions. All question carry **equal** marks.

1. Attempt **any four** of the Following : (5x4=20)
  - (a) What are antacids ? Give example and why combination therapy is adopted.
  - (b) Write the Preparation, identification test and uses of calcium carbonate.
  - (c) Write Preparation, Properties and use of Sodium Fluoride
  - (d) Write note on iron containing Pharmaceuticals.
  - (e) Discuss the Preparation and uses of Boric acid.
2. Attempt **any four** of the Following : (5x4=20)
  - (a) Give the chemical reaction involved in limit test of Arsenic.
  - (b) Give the Preparation and uses of ammonium chloride.
  - (c) Write a note on Protective.
  - (d) What are the requirements for ideal antacids?
  - (e) Write the antibacterial action of silver nitrate.
3. Attempt **any four** of the Following : (5x4=20)
  - (a) Discuss the Pharmaceutical importance of Transition metals.
  - (b) What are antioxidants? Give the reaction for sodium metabisulphite.
  - (c) Explain the term Buffer solution and Buffer capacity.
  - (d) How do astringent act? Give the reaction for zinc sulphate.
  - (e) How is oxygen supplied, stored and labelled ?



4. Attempt **any two** : (10x2=20)

- (a) What are major intracellular and extracellular electrolytes? Discuss the Physiological role of sodium.
- (b) Describe the importance of calcium to the body. How can it be administered to treat hypocalcemia.
- (c) Discuss the limit test for iron.

5. Attempt **any two** : (10x2=20)

- (a) What are the various sources of impurities? How they can be controlled.
- (b) Give the method of preparation, physical properties and pharmaceutical application of two compounds used in Anemia.
- (c) Write short note on Oral Rehydration Therapy and Expectorant.

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## Odd Semester Examination, 2017-18

## B.PHARMA. (SEMESTER-I)

## PHARMACEUTICS-I

Time: 03:00 Hours

Max Marks : 75

Note : Attempt all questions.

1. Answer all parts : (10 x 2 = 20)
- (a) IP stands for.....and EP stands for.....
  - (b) Give two examples of Suspending agents
  - (c) Write Young's formula.
  - (d) Proof spirit is defined as.....
  - (e) Define Iso-tonic solutions.
  - (f) Dusting powders are defined as.....
  - (g) Concentration of sucrose in IP and USP syrup is.....and ..... respectively.
  - (h) Liniment is defined as.....
  - (i) Define suspension. Give example.
  - (j) Define lotion. Give two examples of lotions.
2. Answer any two questions : (2 x 10 = 20)
- (a) Define emulsion. Discuss various methods of preparation of emulsions. Add a note on physical stability of emulsions.
  - (b) What is meant by Pharmaceutical Incompatibility? Discuss physical Incompatibility with methods of adjustment in detail.
  - (c) Define prescription? Discuss various parts of prescription. Add a note on handling of Prescriptions.



3. Write notes on (**any seven**) :

(7 x 5 = 35)

- (a) Identification tests for Emulsions
- (b) Preparation of ointments
- (c) Displacement value and its calculation
- (d) Difference between Flocculated and De-flocculated suspensions
- (e) Advantages and disadvantages of Liquid dosage forms
- (f) Pharmacy as a career
- (g) Factors affecting posology
- (h) Efflorescent and Hygroscopic powders
- (i) Syrups

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Odd Semester Examination, 2017-18

**B.PHARMA. (SEMESTER-I)****PHARMACEUTICAL INORGANIC CHEMISTRY****Time: 03:00 Hours****Max Marks : 75****Note :** Attempt all sections.**SECTION-A****Note :** Answer all the questions.

1. State whether the following statements are true or false : (2x10=20)
- (a) Acids are proton acceptors.
  - (b) Buffers resist small change in pH of solutions.
  - (c) Isotonic solutions have same osmotic pressure.
  - (d) ORS is used as cathartic.
  - (e) Alpha radiations are electrons.
  - (f) Calcium carbonate is an antacid.
  - (g) Sodium fluoride is a major intracellular electrolyte.
  - (h) Potassium iodide is an expectorant.
  - (i) Zinc sulphate is an antimicrobial.
  - (j) Copper sulfate is an emetic.

**SECTION-B**

2. Answer **two** out of **three** questions : (2x10=20)
- (a) Discuss in detail gastrointestinal agents.
  - (b) Discuss radiopharmaceuticals in detail.
  - (c) Discuss on buffers in pharmaceutical systems.



### SECTION-C

BP-104T

3. Short Answers, Answer **seven** out of **Nine** questions : (7x5=35)

- (a) Write a note on sources and types of impurities in pharmaceutical substances.
- (b) Write a note on electrolytes used in replacement therapy.
- (c) Define antimicrobial. Discuss assay of hydrogen peroxide.
- (d) Define expectorant. Discuss assay of ammonium chloride.
- (e) Discuss limit test of chloride.
- (f) Define half life of radioactive isotope.
- (g) Define haematinics. Discuss assay of ferrous sulphate.
- (h) Write note on inorganic poisons and antidotes.
- (i) Define an emetic. Discuss assay of copper sulfate.

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**Odd Semester (Back Paper) Examination, 2017-18****B.PHARMA. (SEMESTER-I)****PHARMACEUTICS-I****( INTRODUCTION TO PHARMACY )****Time: 03:00 Hours****Max Marks : 100****Note :** Attempt all questions, each question carries **equal** marks.

1. Attempt **any four** : (5x4=20)
  - (a) Write a short note on Code of ETHICS?
  - (b) Write a short note on Pharmaceutical legislation in India?
  - (c) Discuss the Scope And Potential of Pharmacy?
  - (d) Write a short note on I.P,U.S. Pand B.P?
  - (e) Define Pharmacopoeia and give its classification?
2. Write short notes attempt **any four** : (5x4=20)
  - (a) Mixtures
  - (b) Aromatic Waters
  - (c) Lotion
  - (d) Mouth wash
  - (e) Powders
3. Write short notes attempt **any four** : (5x4=20)
  - (a) Co-solvents
  - (b) Anti-oxidant
  - (c) Coloring Agent
  - (d) Bio-Polymer
  - (e) Surfactant



4. Attempt **any two** : (10x2=20)

- (a) What is Posology and Factors affecting Posology?
- (b) Calculation of doses for infants according to Youngs formula?
- (c) What is Alligation method with suitable example?

5. Attempt **any two** : (10x2=20)

- (a) What is excipient and Give one suitable example with formulation?
- (b) Define Dosage Form and its classification?
- (c) Write advantages and disadvantages of Liquid dosage form?

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**Odd Semester (Back Paper) Examination, 2017-18****B.PHARMA. (SEMESTER-I)****ANATOMY, PHYSIOLOGY & PATHOPHYSIOLOGY-I****Time: 03:00 Hours****Max Marks : 100****Note :** Attempt **all** questions.

1. Attempt **any four** : (5×4=20)
- (a) Draw a well labeled diagram of a cell. Write the function of mitochondria and lysosome.
  - (b) Write the different mechanisms of transport across cell membrane.
  - (c) Define tissue. Write a note on muscular tissue.
  - (d) Explain the structure and function of connective tissue.
  - (e) Write short note on cell membrane.
2. Attempt **any four** : (5×4=20)
- (a) Enlist the bones of Appendicular System. Write the function of skeletal system.
  - (b) Write a note on vertebral column.
  - (c) Discuss the structure of bone with diagram.
  - (d) Explain the physiology of muscle contraction.
  - (e) Write note on humerus.
3. Attempt **any four** : (5×4=20)
- (a) Give the composition and function of blood
  - (b) Write a note on WBC's.
  - (c) Explain the structure and function of spleen.
  - (d) Discuss blood clotting.
  - (e) Explain ABO system of Blood grouping and Rh factor.

4. Attempt **any two** : (10×2=20)
- (a) Define hormones. Discuss the structure of pancreas, various hormones secreted by it and their functions.
  - (b) What is Master gland? Enlist various hormones secreted by Pituitary gland and discuss the function of hormones of anterior pituitary gland.
  - (c) Discuss synthesis, storage, release and function of thyroid hormones.
5. Attempt **any two** : (10×2=20)
- (a) Discuss the physiology of vision with a well labeled diagram.
  - (b) Discuss structure and functions of skin with a well labeled diagram.
  - (c) Explain the physiology of hearing.

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**Odd Semester Examination, 2017-18****B.PHARMA. (SEMESTER-I)****COMMUNICATION SKILLS****Time: 01: 05 Hours****Max Marks : 35****Note :** Answer **any seven** questions. All questions carry **equal** marks.

1. Attempt **any one** question :
  - (a) Communication Skills : Introduction, Definition, the Importance of Communication, The Communication Process.
  - (b) Give in detail, "Barriers to communication"
2. Attempt **any one** question :
  - (a) Write in detail about various, "Interview Skills".
  - (b) Describe in detail about, the preparation for giving Presentations : Dealing with Fears, Planning your Presentation, Structuring Your Presentation, Delivering Your Presentation, Techniques of Delivery
3. Discuss in brief, "Writing Effectively".
4. Write in detail, "Group Discussion: Introduction, Communication skills in group discussion, Do's and Dont's of group discussion".
5. Discuss, "Elements of Communication:" in detail.
6. Explain, "Communication Styles".
7. Describe the Basic Listening Skill.
8. Discuss Effective Written Communication.
9. Write in detail about, "the various Perspectives in Communication".

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