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Roll No. ....

**341151(41)**

**B. Pharmacy (First Semester) Examination,  
Nov.-Dec. 2021**

**(PCI Scheme)**

**(Pharmacy Branch)**

**HUMAN ANATOMY and PHYSIOLOGY-I  
(Theory : BP101T)**

**Time Allowed : Three hours**

**Maximum Marks : 75**

**Note :** Question paper is of three parts i.e. (A), (B) and (C). Part A consists of 20 MCQs each of 1 mark. All questions are compulsory. Part B consists of 3 long answer questions of which attempt any two. Each of 10 marks. Part C consists of 9 short answer questions, attempt any seven questions. Each of 5 marks. Make a clear diagram wherever necessary.

**Section-A**

**(Objective Type Questions) 20×1=20**

**Note :** Attempt all questions, each carries 1 mark.

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1. Multiple Choice Questions (MCQs) :

- (i) The cell membrane is :
- (a) Solid
  - (b) Semi solid
  - (c) Fluid
  - (d) Gaseous
- (ii) Protein synthesis takes place in :
- (a) Ribosome
  - (b) Endoplasmic reticulum
  - (c) Nucleus
  - (d) Golgi complex
- (iii) Cell power house is :
- (a) Mitochondria
  - (b) Golgi apparatus
  - (c) Lysosomes
  - (d) Endoplasmic reticulum
- (iv) Sodium-potassium pump is an example of :

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- (a) Active transport
  - (b) Passive transport
  - (c) Facilitated diffusion
  - (d) Osmosis
- (v) The total number of bones in adult human body is :
- (a) 206
  - (b) 210
  - (c) 260
  - (d) 236
- (vi) The transformation of cartilage into bone is called :
- (a) Osteoporosis
  - (b) Haemopoiesis
  - (c) Ossification
  - (d) Haemolysis
- (vii) Patella is a bone found in :
- (a) Carpus
  - (b) Ankle

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- (c) Knee
- (d) Tarsus
- (viii) The vertebrae are separated from each other by :
- (a) Blood vessels
- (b) Nerves
- (c) Cartilaginous
- (d) Muscle
- (ix) The brain stem comprises of :
- (a) Medulla, Pons and midbrain
- (b) Thalamus, hypothalamus and pituitary complex
- (c) Tegmentum and tectum
- (d) Medulla, pons and cerebellum
- (x) ANS regulates the activity of all except :
- (a) Glands of GIT
- (b) Sweat
- (c) Heart
- (d) Skeletal muscle

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- (xi) In normal adult volume of CSF is approximately :
- (a) 250 ml
- (b) 350 ml
- (c) 150 ml
- (d) 50 ml
- (xii) In spinal cord, grey matter
- (a) Is surrounded by white matter
- (b) Surrounds the white matter
- (c) Does not exist
- (d) Forms nerves
- (xiii) Which of the following is structural unit of nervous system :
- (a) Alveoli
- (b) Nephron
- (c) Neuron
- (d) Leucocyte
- (xiv) Which of the following carry the impulses from the brain or spinal cord to the muscles :

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- (a) Mixed nerves
  - (b) Motor nerves
  - (c) Sensory nerves
  - (d) All of the above
- (xv) Which of the following is divided into parasympathetic nervous system and sympathetic nervous system :
- (a) Central Nervous System
  - (b) Peripheral Nervous System
  - (c) Autonomic Nervous System
  - (d) Spinal cord
- (xvi) Which of the following glands are present in eyes :
- (a) Pituitary gland
  - (b) Lacrimal gland
  - (c) Thyroid gland
  - (d) Mucus gland
- (xvii) Which of the following layer of skin does not contain blood vessels :

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- (a) Cutis
- (b) Dermis
- (c) Corium
- (d) Epidermis

(xviii) Posterior pituitary releases which of the following hormones :

- (a) TSH and GH
- (b) TSH and LH
- (c) ADH and prolactin
- (d) Oxytocin and Vasopressin

(xix) Largest endocrine gland is :

- (a) Pituitary
- (b) Thyroid
- (c) Adrenals
- (d) Pancreas

(xx) Pancreatic  $\beta$ -cell secretes

- (a) Pepsin

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- (b) Insulin
- (c) Glucagon
- (d) Somatostatin

**Section-B**

**(Long Answer Type Questions) 2×10=20**

*Note : Attempt any two questions out of 3 questions.  
Each question carries 10 marks.*

2. Define cell with well labelled diagram of different organelles. Write the functions of cell and its compositions.
3. What are the various classifications of nervous system? Write in details about structure and functions of sympathetic and parasympathetic nervous system.
4. (a) Write the locations, structure and functions of Adrenal gland.  
(b) Write the locations, structure and functions of pancreas.

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**Section-C**

**(Short Answer Type Questions) 7×5=35**

*Note : Attempt any seven questions out of nine questions. Each question carries 5 marks.*

5. Discuss homeostasis and importance of negative and positive feedback mechanism.
6. Write a detail note on nervous tissue.
7. Write classification of joints and their functions.
8. Discuss about structure and functions of skin.
9. Write a detail note on neuromuscular junction.
10. Describe reflex activity with well labelled diagram.
11. Explain physiology of hearing with neat and clean diagram.
12. Write the functions of posterior pituitary hormones.

13. What are cranial nerves? Write in details about their functions.

(Short Answer Type Questions) [2-3]

Note: Attempt any four questions out of nine questions. Each question carries 2 marks.

6. Discuss hormones and importance of negative and positive feedback mechanism.

7. Write a detail note on nervous tissue.

8. Write classification of joints and their functions.

9. Discuss about structure and function of skin.

10. Write a detail note on neuromuscular junction.

11. Describe reflex arc with well labelled diagram.

12. Explain physiology of hearing with neat and clean diagram.

13. Write the functions of posterior pituitary hormones.

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**B. Pharmacy (First Semester) Examination,  
Nov.-Dec. 2021**

**(PCI Scheme)**

**(Pharmacy Branch)**

**PHARMACEUTICAL ANALYSIS-I**

**Time Allowed : Three hours**

**Maximum Marks : 75**

**Note : Question paper contains three Sections. Read  
the instructions of each section carefully.**

**Section-A  $20 \times 1 = 20$**

**(Multiple Choice Questions)**

**Note : Attempt all questions. Each question carries  
1 mark.**

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1. (i) API stands for :
- (a) Active Pharmacy Interpretation
  - (b) Acute Pulmonary Interaction
  - (c) Active Pharmaceutical Ion
  - (d) Active Pharmaceutical Ingredient
- (ii) Which analytical techniques is used for determine the amount of oxidizing agents?
- (a) Oxidation-reduction titration
  - (b) Bromometry
  - (c) Complexometry
  - (d) None of these
- (iii) Random error is also known as :
- (a) Accidental error
  - (b) Indeterminate error
  - (c) Determinate error
  - (d) Both (a) and (b)
- (iv) Which theory is able to explain acid base behaviour in non-aqueous solvents?

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- (a) Arrhenius theory
  - (b) Common ion effect
  - (c) Bronsted theory
  - (d) None of these
- (v) Weakly acidic and weakly basic substances analyzed by which titration method :
- (a) Aqueous titration
  - (b) Non-aqueous titration
  - (c) Redox titration
  - (d) Complexometric titration
- (vi) Which method is used in water analysis :
- (a) Fajan's method
  - (b) Mohr's method
  - (c) Volhard's method
  - (d) None of these
- (vii) SI unit of conductance is :
- (a) mho
  - (b) siemens



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- (c) volt
- (d) None of these
- (viii) Current used for measurement of conductance is :
- (a) A.C.
- (b) D.C.
- (c) Any one of these
- (d) None of these
- (ix) Solubility of sparingly soluble salt can be determined by :
- (a) Polarography
- (b) Potentiometry
- (c) Conductometry
- (d) IR spectroscopy
- (x) Potentiometry is an ..... method of analysis.
- (a) Spectroscopic
- (b) Analytical
- (c) Electro-analytical
- (d) None of these

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- (xi) Hydrogen electrode can be used as .....
- (a) Reference
- (b) Indicator
- (c) Both of above
- (d) None of these
- (xii) There is a linear relationship exist between pH and ..... of the solution.
- (a) Colour
- (b) Potential
- (c) Turbidity
- (d) None of these
- (xiii) Residual current in polarography is due to :
- (a) Oxidizable impurity
- (b) Reducible impurity
- (c) Anlyte
- (d) All of these
- (xiv) Diffusion current can be correlated with different conditions by :

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- (a) Nernst equation
  - (b) Bragg's equation
  - (c) Illkovic's equation
  - (d) Beer's equation
- (xv) Antimony electrode is an :
- (a) Indicator electrode
  - (b) Secondary reference electrode
  - (c) Reference electrode
  - (d) None of these
- (xvi) Which one is useful in non-aqueous solution :
- (a) Leveling solvent
  - (b) Differentiating solvent
  - (c) Both (a) and (b)
  - (d) None
- (xvii) Which of the following is an example of adsorption indicator :
- (a) Eosin
  - (b) Phenolphthalein

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- (c) Methyl Red
  - (d) Ninhydrine
- (xviii) Oxidation involve :
- (a) Gain in oxygen
  - (b) Loss of oxygen
  - (c) Both (a) and (b)
  - (d) None of the above
- (xix) Lesser the pH ..... in the acid nature.
- (a) Weaker
  - (b) Stronger
  - (c) Both (a) and (b)
  - (d) None of these
- (xx) Phenolphthalein change color in ..... medium.
- (a) Acid
  - (b) Alkali
  - (c) Water
  - (d) Salt solution

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**Section-B**  $2 \times 10 = 20$

**(Long Answer Types Questions)**

*Note : Attempt any two questions. Each question carries 10 marks.*

2. Discuss about gravimetric analysis along with the principle and step involved in it.
3. Write a detail note on redox titration with principle and application of titration involving permanganometry.
4. Give detail note on Polarography its principle and instrumentation.

**Section-C**  $7 \times 5 = 35$

**(Short Answer Types Questions)**

*Note : Attempt any seven questions. Each question carries 5 marks.*

5. Write about the sources of Error and its types.

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6. Write a note on method of expressing concentration.
7. Write a note on acid base titration.
8. Explain various method involved in precipitation titration.
9. Write a note on masking and demasking agent.
10. Give principle and application of conductometric titration.
11. Write a note on primary and secondary electrode.
12. Write a estimation of sodium chloride by Mohr's method.
13. Write a note on non-aqueous titration.

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**B. Pharmacy (First Semester) Examination,  
Nov.-Dec. 2021**

**(PCI Scheme)**

**(Pharmacy Branch)**

**PHARMACEUTICS-I**

**THEORY (BP103T)**

**Time Allowed : Three hours**

**Maximum Marks : 75**

*Note : Question paper has three parts that is A, B and C. Part A has 20 MCQ's, each of 1 marks. All questions in part A are compulsory. Part B is long answer type questions. It contains 3 questions of which, attempts any two questions. Each question carries 10 marks. Part C is short answer type questions. It contains 9 questions, of which attempt any seven questions. Each question carries 5 marks.*

**Part-A** **20×1=20**

*Note : Attempt all questions. Each question carry 1 mark.*

[ 2 ]

1. Multiple Choice Questions :

- (i) The part of the prescription which contain the names and quantities of the prescribed ingredient
- (a) Superscription
  - (b) Subscription
  - (c) Inscription
  - (d) Signatura
- (ii) The dose of child, proportional to body weight is calculated by
- (a) Young's formula
  - (b) Dilling's formula
  - (c) Clark's formula
  - (d) None of these
- (iii) The translation of Latin term "s.o.s." into English is
- (a) As directed
  - (b) Immediately
  - (c) After meal
  - (d) When required

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- (iv) When an unusually large dose of drug is required to elicit an effect, is called
- (a) Tolerance
  - (b) Idiosyncrasy
  - (c) Tachyphylaxis
  - (d) Synergism
- (v) The proof spirit, which is 100 proof contain
- (a) 100% v/v alcohol
  - (b) 50% v/v alcohol
  - (c) 57.1% v/v alcohol
  - (d) 95% v/v alcohol
- (vi) The concentration of sodium chloride in isotonic solution will be
- (a) 0.6%
  - (b) 0.5%
  - (c) 0.9%
  - (d) 0.4%
- (vii) The following combination of substance will form eutectic mixture

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- (a) Menthol and Comphor
  - (b) Menthol and Mannitol
  - (c) Menthol and Sugar
  - (d) Menthol and zinc chloride
- (viii) The following is NOT a method for solubility enhancement
- (a) Complexation
  - (b) Hydrotropy
  - (c) Cosolvency
  - (d) Precipitation
- (ix) The substance used as base for preparation of throat paint is
- (a) Alcohol
  - (b) Water
  - (c) Glycerol
  - (d) Liquid paraffin
- (x) The simple syrup contain sucrose in concentration of
- (a) 50% w/w

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- (b) 66.7% w/w
  - (c) 60% w/w
  - (d) 80% w/w
- (xi) The following substance is used as thickening agent for preparation of suspension
- (a) Gum acacia
  - (b) Tragacanth
  - (c) Methyl cellulose
  - (d) All of the above
- (xii) The dye used for identification test of emulsion is
- (a) Scarlet red
  - (b) Tartrazine
  - (c) Potassium permanganate
  - (d) Phenolphthalein
- (xiii) The theorem oil has melting point of
- (a) 5-10°C
  - (b) 10-15°C
  - (c) 30-35°C

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- (d) 50-70°C
- (xiv) The method of preparation of suppositories is
- (a) Rolling method
  - (b) Fusion method
  - (c) Cold compression method
  - (d) All of the above
- (xv) When oil is mixed with water, it is example of following incompatibility
- (a) Immiscibility
  - (b) Insolubility
  - (c) Precipitation
  - (d) Liquefaction
- (xvi) The therapeutic incompatibility occurs due to
- (a) Error is dose
  - (b) Contra indication
  - (c) Durg interaction
  - (d) All of the above
- (xvii) The example of absorption base used in ointment include

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- (a) Petrolatum
  - (b) Wool fat
  - (c) Hard paraffin
  - (d) Polyethylene glycol
- (xviii) The following test is **NOT** performed for ointment
- (a) Release of medicament from base
  - (b) Consistency of preparation
  - (c) Irritation test
  - (d) Hardness
- (xix) The study of dose is called :
- (a) Rheology
  - (b) Posology
  - (c) Oncology
  - (d) None of the above
- (xx) The following substance is **NOT** used as gelling agent
- (a) Tragacanth
  - (b) Sodium alginate

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- (c) Gelatin
- (d) Liquid paraffin

**Part-B**

10×2=20

*Note: Attempt any two questions Each question carries equal marks.*

2. Define prescription. Explain various parts of prescription with example.
3. Describe excipient used in formulaion of liquid dosage form.
4. Discuss various techniques, used for solubility enhancement. Write two formulas used for calculation of pediatric dose.

**Part-C**

7×5=35

*Note: Answer any seven questions. All questions carry equal marks.*

5. Write note on mouth wash.

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6. Write difference between flocculated and deflocculated suspension.
7. Discuss stability problem of emulsion in details.
8. Write note on suppositoris bases.
9. Discuss physical incompatibility.
10. Explain method of preparation of suppositories.
11. Discuss various factors affecting dermal penetration of drug.
12. Describe types of ointment bases.
13. Write note on evaluation of semisolid dosage form.



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**B. Pharmacy (First Semester) Examination,  
Nov.-Dec. 2021**

**(PCI Scheme)**

**(Specialization : Pharmaceutical Chemistry)  
(Pharmacy Branch)**

**PHARMACEUTICAL INORGANIC  
CHEMISTRY-Theory  
(BP104T)**

*Time Allowed : Three hours*

*Maximum Marks : 75*

*Note : Answer question no.1 which is compulsory from Group-‘A’. Answer any two from Group-‘B’ and answer any seven from Group-‘C’. The figures in the right hand margin indicated full marks of the questions.*

**Group-‘A’**

**10×2=10 20**

1. Give reasons for the followings :

- (i) Conc. Nitric acid used in the limit test for chlorides.

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- (ii) Potassium iodide is used in the preparation of Iodine solutions.
- (iii) Ammonia is used in the limit test for Iron.
- (iv) The use of alcohol in the limit test for chloride in  $\text{KMnO}_4$ .
- (v) Polyhydric alcohols are used in the assay of boric acid.
- (vi) What happens when E.D.T.A. solution is added to calcium Gluconate?
- (vii) The use of Potash Alum.
- (viii) Write the names of Desensitizing agents.
- (ix) What do you mean Lewis acid and Lewis base?
- (x) Write down the examples of radio isotopes and their use (atleast four).

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Group-'B' 2×10=20

*Note : Answer any two questions. Each question carries 10 marks.*

- 2. Describe with labelled diagram, principle and procedure of limit test of Arsonic.
- 3. What are the major electrolytes in the body? What are their usual concentration ranges in plasma? What is their role in the body?
- 4. Briefly explain the principle of working of a G. M. Counter, its specific application and limitation.

Group-'C' 5×7=35

*Note : Answer any seven questions. Each question carries 5 marks.*

- 5. Write a brief notes on source of Ionipurities in pharmaceuticals.
- 6. How do calcium compounds find application in dentrifices?

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7. What are Antacids? Explain, with at least two official compounds as examples.
8. Write short note on Expectorants.
9. Explain the term Astringent with suitable examples.
10. What are antidotes? What is the mechanism of action of antidote in poisoning?
11. What is Emetics and write down the preparation and uses of copper sulphate?
12. Write down the preparation and uses of chlorinated lime.
13. Write down the storage conditions, precautions pharmaceutical application of radioactive substances.

**Shri Shankaracharya College of Pharmaceutical Sciences**

**Junwani, Bhilai**

**B.Pharm I Semester**

**End semester Non University Exam (2021-22)**

**Sub.: Communication Skills(BP 105T)**

**Subject Code: 341155 (41)**

**Max. Marks : 35**

**Time : 1.5 Hrs**

**Section A (Long Answer type questions)**

*Note: Attempt any one question*

**(1x10 =10)**

1. Define Communication. Illustrate communication cycle along with the sketch and explain the different elements that are involved in the process of communication
2. What is a Group Discussion? What are the important points to be remembered in a G.D along with the dos and dont's of a group discussion?

**Section B (Short Answer type questions)**

*Note: Attempt any five questions. 05 marks each*

**(5x5 =25)**

3. Name the different barriers to communication. Explain in detail.
4. Define Interview. Explain the different types of Interview. What are the preparations to be made by an interviewer?
5. What are the different types of listening. Explain. What are the advantages of listening?
6. What are the different styles of Communication. Elaborate.
7. What are the points to be kept in mind while giving oral presentation before a large group?
8. Explain the different types of Interview. What preparations are to be made by an interviewee?