Registration No:

Total Number of Pages: 01

B.Pharma.
BP101T

1st Semester Regular Examination 2017-18
HUMAN ANATOMY AND PHYSIOLOGY - I
BRANCH : B.Pharma.
Time: 3 Hours
Max Marks: 75
Q.CODE: B1084
Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1		**Answer the following questions :**	**(2x10)**
	a)	Define Cell.	
	b)	What is Haemoglobin?	
	c)	Write the functions of Mitochondria.	
	d)	Write the functions of CSF.	
	e)	What is Cardiac output?	
	f)	Which bones are involved in Shoulder joint?	
	g)	What is Clotting time?	
	h)	Define Rh factor?	
	i)	What is Megaloblastic anemia?	
	j)	Write the functions of Skeletal muscle.	
	B)	Answer the correct option of the followings:	**(1×5)**
	i)	How many pairs of cranial nerves arising from brain. (12 pairs/31 pairs)	
	ii)	Which auricle of heart receives oxygenated blood? (Right auricle/Left auricle)	
	iii)	Total life span of RBC. (80days/120days)	
	iv)	Polycythemia occurs due to increase in the number of (RBC/WBC)	
	v)	Bone is a (Epithelial tissue/Connective tissue)	
Q2		Draw a neat and clean diagram of Human Heart with proper labeling.	**(10)**
Q3		Describe different types of Blood circulations in details.	**(10)**
Q4		Write details on Human Eye with a diagram and proper labeling	**(10)**
Q5	**a)**	Describe the mechanism of blood clotting.	**(5)**
	b)	Write the various functions of blood.	**(5)**
Q6	**a)**	Differentiate between CNS and ANS.	**(5)**
	b)	Write a short note on Neurone.	**(5)**
Q7	**a)**	Discuss briefly the different properties of Cardiac muscle.	**(5)**
	b)	Describe short note on Spleen.	**(5)**
Q8	**a)**	Write the various functions of Skin.	**(5)**
	b)	Describe the physiology of Muscle contraction.	**(5)**

Registration No:

Total Number of Pages: 02

B.Pharma.
BP102T

1st Semester Regular Examination 2017-18
PHARMACEUTICAL ANALYSIS – I
Branch: B.Pharma
Time: 3 Hours
Max Marks: 75
Q. Code: B842
Answer question No. 1 is compulsory and any five of the rest.
The figure in right hand margin indicates marks.

1. (a) **Answer the following Questions.**   (2X10)
    i.   What is accuracy and precision?
    ii.   What is primary standard and secondary standard?
    iii. Define 'Normality' and 'Molarity'.
    iv.   Why KI is used during iodine solution preparation?
    v.   What is acid and base (according to Arrhenius Theorem)?
    vi.   What is the basis of non-aqueous titration?
    vii. What is levelling effect? Explain with example.
    viii. What is Nernst Equation?
    ix.   What is common ion effect?
    x.   What is masking and de-masking agent?

    (b) **Answer following multiple choice questions.**   (1X5)
    i.   Which one of the following is not a chelating agent?
          1.EDTA   2.lime stone   3.Ca^{++} 4. HCl
    ii.   Which one of the following is most soluble in the water?
          1.CH_3CH_2OH 2.$CH_3CH_2CH_2OH$ 3.CH_3OH 4.$CH_3CH_2CH_2CH_2OH$
    iii. Silver carbonate is most soluble in_____.
          1. Sodium carbonate 2. Nitric acid 3. Silver nitrate 4. silver chloride
    iv.   Non aqueous titration is carried out for
          1. Water insoluble drugs
          2. Weakly acidic drugs
          3. Weakly basic drugs
          4. All of above
    v.   Which "metal" and "indicator" is used for the standardization of
          EDTA solution
          1. Copper and Calcon
          2. Iorn and Catachol Voilet
          3. Copper and Mordant black II
          4. Zinc and Mordant black II

2.   Discuss iodimetric and iodometric titration in light of redox titration.   (10)

3.   Discuss conductometric titration along with its application.   (10)

4.   Discuss principal and application of electrodes used in   (10)
         polarography.

5. **(a)** Explain the difference between a strong acid/baseand weak acid/base. **(5)**

   (b) If110.00 ml of anaqueous HCl(strong acid)is titratedwith a standardized 0.580M solution of NaOH (strong base) and the addition of 25.10ml of base caused the phenolphthalein indicator to turn lightpink, what was the Molarity of the HCl? **(5)**

6. **(a)** Discuss preparation and standardization of 0.1 N perchloric acid. **(5)**

   (b) What are advantages and disadvantages of non-aqueous titration. **(5)**

7. **(a)** Find the pH of a solution prepared by dissolving 12.43 g of tris (MW = 121.135 g/mol) plus 4.67 g of tris hydrochloride (MW = 157.596 g/mol, Ka= 8.4×10^{-9}) in 1litre of water. **(5)**

   (b) If 12.0 mL of 1M HCl added to the above solution(a) made, what will be the new pH? **(5)**

8. **Write note on ANY TWO of following :** **(5X2)**

   (a) Preparation and standardization of sodium hydroxide.

   (b) Assay of NaCl by precipitation titration.

   (c) Potentiometric titration.

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Total Number of Pages: 02   B.Pharma.
                                                                                             BP103T

1st Semester Regular Examination 2017-18
PHARMACEUTICSI
Branch: B.Pharm
Time: 3 Hours
Max Marks: 75
Q. Code: B931
Answer question No. 1 is compulsory and any five of the rest.
The figure in right hand margin indicates marks.

1.	(a)	**Answer the following Questions.**	**(2X10)**
	i.	What are the techniques used for enhancing the solubility of poorly soluble agent/drug?	
	ii.	What do you mean by displacement value?	
	iii.	Write two advantages and disadvantages of suppository.	
	iv.	What is the major stability problem related to the suspension?	
	v.	What is a eutectic mixture?	
	vi.	Write short note: HLB value	
	vii.	Write in brief on errors in prescription.	
	viii.	What are the mechanisms of dermal penetration?	
	ix.	How will you identify w/o and o/w type of emulsion?	
	x.	Write a short note on syrup.	
	(b)	**Answer following multiple choice questions.**	**(1X5)**
	i.	Define suspension	
	ii.	What is proof spirit?	
	iii.	What is a hygroscopic powder? Give example.	
	iv.	What are the types of emulsion? Give example	
	v.	Give the meaning of: *modo dictum, peros*.	
2.		Write a note on: Pediatric dose calculation based on age, body weight and body surface area. Write about the various parts of prescription.	**(10)**
3.		What are the factors that influence the rectal penetration of drug?	**(10)**
4.		What do you mean by Pharmaceutical incompatibilities? Classify and give suitable examples.	**(10)**
5.		**Write short note on:**	
	(a)	Emulsifying agents	**(5)**
	(b)	Methods of identification of emulsion	**(5)**
6.	(a)	What are the excipients which are used in liquid dosage forms.	**(5)**
	(b)	write in brief regarding flocculated and deflocculated suspension	**(5)**

7. **(a)** Classify powder **(5)**

(b) Write differences between emulsion and suspension **(5)**

8. **(a)** Write a note on factors affecting Posology. **(5)**

(b) What is allegation method. **(5)**

1st Semester Regular Examination 2017-18
PHARMACEUTICAL INORGANIC CHEMISTRY
BRANCH : B.Pharma.
Time: 3 Hours
Max Marks: 75
Q.CODE: B1019
Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1 **i)** **Answer the following questions :** (2 x 10)
  a) Define the term antidote with example.
  b) What is Cathartics?
  c) What are electrolytes? Give example?
  d) What is the difference between self life and half life of a drug?
  e) What are Expectorants used for?
  f) Why is lead acetate moistened cotton is used in the Limit test of Arsenic?
  g) What is a radioactive isotope and what are they used for?
  h) Define the term acidifiers. Give Examples.
  i) Define Haematinics with two examples.
  j) What is a Monograph of a drug?

  ii) **Answer the following questions** (5×1)
  a) Impurities in pharmaceutical preparation may be due to following sources:
      (a) Raw material   (b) Manufacturing process
      (c) Chemical instability   (d) All of the above
  b) Inorganic antimicrobial agent can be divided into
      (a) Oxidation   (b) halogenation
      (c) Protein precipitate   (d) all of the above
  c) In Bronsted-Lowry concept acid is
      (a) Proton donor   (b) electron donor
      (c) Proton accepter   (d) electron accepter
  d) Latest edition of Indian Pharmacopoeia.
      a) 2010   b) 2014
      c) 2007   d) 2018
  e) Antacids are used for treating indigestion which contain
      a) Potassium hydroxide   b) Sodium hydroxide
      c) Magnesium carbonate   d) Magnesium hydroxide

Q2 Discuss in brief the various sources of impurities. Write down the principle involved in the limit test for Chloride. **(10)**

Q3 Define buffer solution. Mention the role of buffers in pharmacy. Define the term Isotonicity. How do you measure the tonicity of the fluid? **(10)**

Q4 Mention the major intra and extracellular electrolytes used in replacement therapy. What is the composition of ORS as per WHO? **(10)**

Q5 **a)** Define dentifrices. Write down the use of Calcium carbonate and Zinc eugenol cement. **(5)**

  b) What do you mean the term desensitizing agents with example? **(5)**

Q6 **a)** Define and classify antacids with examples. **(5)**

  b) Mention the ideal properties of an antacid. Write a note on combinations of antacids. **(5)**

Q7 **a)** Write short note on emetics and antidote. (5)

b) Define and classify astringents with examples. Mention their mechanisms. (5)

Q8 **a)** What is meant by radioactivity? How do you measure the radioactivity of a compound? (5)

b) Write a note on α, β and γ radiation. Mention the imporatance of Sodium iodide (5)

Answer any one from the Part-A and any five from the Part-B.
The figures in the right hand margin indicate marks.

Part-A

Q.1.   Imagine that you have created a new chemical additive which, when added to ordinary **(10)** petrol, can increase the fuel efficiency of cars and motor-cycles by at least 30 percent. You are asked to make an oral presentation of your new invention before a group of industrialists. Write the script for this presentation in about 150 words.

Q.2.   Write in about 150 words, on "the salient points of preparing for interview".   **(10)**

Part-B (about 75 words)

Q.3.   Explain the difference between verbal and non-verbal communication with examples.   **(05)**

Q.4.   Why is speech more effective than writing?   **(05)**

Q.5.   What is meant by formal and informal style?   **(05)**

Q.6.   What are the drawbacks of oral communication?   **(05)**

Q.7.   Discuss the different forms of written communication.   **(05)**

Q.8.   What are the advantages of 'GD'?   **(05)**

Q.9.   Imagine an interview you have faced and describe how it went in the first five minutes.   **(05)**

Total Number of Pages: 01

B.Pharm
BP106RBT

First Semester Regular Examination 2017-18
(Non University Examination as per Pharmacy Council of India (PCI) Guideline 2017-18)
REMEDIAL BIOLOGY
BRANCH: B.PHARM
Time: 1½ Hours
Max Marks: 35
QUESTION CODE: INUE1702
Answer any one from the Part-A and any five from the Part-B.
The figures in the right hand margin indicate marks.

Part-A

Q.1.   Define plant growth regulator, classify it, and write down the functions and applications of   **(10)**
        the hormone.

Q.2.   Draw a labelled diagram of cell; write detail about the plasma membrane and   **(10)**
        mitochondria.

Part-B

Q.3.   Describe the mechanism of breathing.   **(05)**

Q.4.   Write a note on underground modified stem.   **(05)**

Q.5.   Mention the composition and functions of saliva.   **(05)**

Q.6.   Write about different types of blood groups along with its significance.   **(05)**

Q.7.   Give a schematic representation of Nitrogen cycle.   **(05)**

Q.8.   Classify and write the importance of essential elements.   **(05)**

Q.9.   Write down the advantages and disadvantage of binomial nomenclature.   **(05)**

B.Pharm

BP106RMT

First Semester Regular Examination 2017-18
(Non University Examination as per Pharmacy Council of India (PCI) Guideline 2017-18)
REMEDIAL MATHEMATICS
BRANCH: B.PHARM
Time: 1½ Hours
Max Marks: 35
QUESTION CODE: INUE1703
Answer any one from the Part-A and any five from the Part-B.
The figures in the right hand margin indicate marks.

Part-A

Q.1. Find the characteristic equation of the matrix: $A = \begin{vmatrix} 1 & -2 \\ 3 & 4 \end{vmatrix}$ and hence find the inverse of the matrix. **(10)**

Q.2. If $y = (\sin x)^x + x^{\sin x}$, then find $\frac{dy}{dx}$. **(10)**

Part-B

Q.3. If $y = \sin^3 \sqrt{x}$, then find $\frac{dy}{dx}$. **(05)**

Q.4. Integrate $\int \frac{1}{\sqrt{1-x}} \, dx$. **(05)**

Q.5. Find the value of $\int_0^{\pi/2} \sec^2 x \, dx$. **(05)**

Q.6. Solve $x\frac{dy}{dx} + \frac{y^2}{x} = y$. **(05)**

Q.7. Evaluate L [t sin at]. **(05)**

Q.8. Show that the points (2, 4), (2, 6), (2+$\sqrt{3}$, 5) are the vertices of an equilateral triangle. **(05)**

Q.9. Find the equation of the straight line whose x-intercept is 3 and y-intercept is 5. **(05)**

1stSemester Back Examination 2017-18
Pharmaceutics - I
BRANCH : B.Pharma
Time : 3 Hours
Max Marks : 100
Q.CODE : B929

Answer Question No.1 and 2 which are compulsory and any four from the rest.
The figures in the right hand margin indicate marks.

Q1   **Answer the following questions:** *multiple type or dash fill up type*   **(2 x 10)**
  a) The USP storage condition cool place refers to temp.(^{0}C)
       a. 8 -15, b. 2-8, c. 25-40, d. 0-4
  b) Tween 20 is a
       a. preservative, b. surfactant, c. deflocculant, d. none of the above
  c) Non aqueous vehicle used in injections is wax/ glycerol/ vegetable oils/ alcohol
  d) Dental powder is example of
       a. simple powder b. bulk powder c. divided powder d.none of the above
  e) Parabens are used in syrups as
       a. Buffers b. Stabilizers c. Preservatives d. thickeners
  f) The latest edition of IP is published in the year _____ .
  g) The literary meaning of the term 'Rx' in English is _____ .
  h) Particle size range of Fine Powder is _____ .
  i) An example of Absorption base for ointments is _____ .
  j) Aspertame, in monophasic liquid dosage forms can be used as _____ .

Q2   **Answer the following questions:** *Short answer type*   **(2 x 10)**
  a) When was the 1stedition of IP published? Write the full form of BPC
  b) What do you understand by the terms b.i.d. and p.c. in a prescription?
  c) Write down Fick's 1st law of diffusion.
  d) Write down Young's formula for child dose.
  e) Define solution. What is a suspension?
  f) Calculate the amount of NaCl required for 5oo ml normal saline solution
  g) What is dusting powder?
  h) What are galenicals?
  i) Define elixir. What is collutorium?
  j) Define contact angle.

Q3 **a)** In what proportion, 10%, 6% and 3% alcohol have to be mixed to obtain 5% alcohol? (solve by allegation process)   **(10)**
  b) What is denatured alcohol? Write the composition of simple syrup IP. Define cachets   **(5)**

Q4 **a)** Write a note on suppository bases   **(10)**
  b) Give one example each of physical incompatibility, chemical incompatibility and therapeutic incompatibility in a prescription.   **(5)**

Q5 **a)** Write a note on stability problems of emulsions and possible methods to overcome those   **(10)**
  b) Differentiate between flocculated suspension and deflocculated suspension.   **(5)**

Q6 **a)** Write an elaborate note on the four types of ointment bases   **(15)**

Q7 **a)** Write a note on different factors affecting posology.   **(10)**
  b) What is cap locking problem in syrups? How can it be overcome?   **(5)**

Q8 **a)** Write a note on solubility enhancement techniques of liquid dosage forms. **(10)**

b) Give a detailed description of different types of emulsifying agents. Enlist three methods to identify the type of emulsion **(5)**

Q9 **a)** What are the different types of excipients used in liquid dosage form. Write a brief note on any one of them. **(10)**

b) Write a brief note on gargarisma. Name a preservative used in ophthalmic preparations. **(5)**

1st Semester Back Examination 2017-18
INORGANIC PHARM CHEMISTRY
Branch: B.Pharma
Time: 3 Hours
Max marks: 100
Q. CODE:B1012
Answer Section 'A' which is compulsory and any Four from Section 'B'.
The figures in the right hand margin indicate marks.
Section A

Q1   **Answer the following questions:**   **(2x10)**

a) Nitrous oxide is (a) analgesic (b) anaesthetic (c) both (a) and (b) (d) none of these.

b) ZnO is used as (a) protective (b) astringent (c) both (a) & (b) (d) antidote.

c) Sterile water for injection may be stored in (a) Type 1 (b) Type 2
(c) Both (a) and (b)   (d) Type 3.

d) In Bronsted-Lowry concept acid is (a) proton donor (b) electron donor (c) proton accepter
(d) electron accepter.

e) Impurities in pharmaceutical preparation may be due to following sources:
(a) Raw material (b) Manufacturing process (c) Chemical instability
(d) All of the above

f) Oxygen requirement in the body can be classified into four major divisions.
(a) Anoxic (b) Stagnant (c) Anemic (d) All of these

g) Hydrogen peroxide is used as (a) antiseptic (b) acidifying agent (c) protective
(d) Suspending agent.

h) Fluoride inhibits caries formation via (a) ↓ acid solubility of enamel (b) bacterial inhibition (c) both the above (d) ↑ acid solubility of enamel.

i) $AgNO_3$ is categorizes into (a) oxidative antimicrobial agent (b) halogenated antimicrobial agent (c) protein ppt. antimicrobial agent (d) all of the above.

j) Permanent hard water may be softened by (a) addition of soluble carbonate
(b) polyphosphate chelation (c) zeolite (d) all of the above.

Q2   **Answer the following questions:**   **(2x10)**

a) What is the role of Nitric acid in limit test for Chloride?

b) What is Antiflatuent agent & reflux suppressants?

c) Define buffer solution & buffer capacity?

d) Mention the units of radio activity.

e) Define sedative? Give example.

f) Mention the storage and uses of dry ice.

g) What is the WHO composition of ORS?

h) What are inhalants & respiratory stimulants?

i) Write the principle of the limit test for Iron?

j) What are the precautions taken for handling of radiopharmaceuticals.

Section B

Q3 **a)** Define antiseptic & disinfectant with suitable examples. Mention the mechanism action of anti-microbial agents. Write down the properties & uses of Potassium permanganate and Iodine. **(10)**

b) Write short notes on: i) Expectorant ii) Limit test of sulphate **(5)**

Q4 **a)** Describe briefly the limit test for arsenic with a neat labeled diagram. **(10)**

b) Write a note on sources of impurities in pharmaceuticals. **(5)**

Q5 **a)** Define antacid? Classify it. Write down the ideal characteristics of an antacid. Write briefly about the combination of antacids. **(10)**

b) Write down the preparation & properties of Aluminium hydroxide gel & Magnesium trisilicate. **(5)**

Q6 **a)** Describe about the measurement of radioactivity. Explain the design & construction features of GM Counter? **(10)**

b) Write a note on antioxidant with suitable examples. **(5)**

Q7 **a)** Write short notes on: i) Antidote ii) Anticaries agent. **(10)**

b) Define cough? Explain the mode of action of Emetics. **(5)**

Q8 **a)** Explain in details about the physiological acid base balance & the electrolytes used for replacement therapy. **(10)**

b) Write the role of Oxygen in biological system. **(5)**

Q9 **a)** What are protein precipitants? How they show their activity? Write preparation & uses of Alum. **(10)**

b) Write down the preparation & uses of Hydrogen peroxide & Boric acid. **(5)**

Total Number of Pages: 02

B.Pharm
15PH103

1st Semester Back Examination 2017-18
HAP- I
BRANCH : B.Pharma
Time: 3 Hours
Max marks: 100
Q.CODE: B829
Answer Question No.1 and 2 which are compulsory and any four from the rest.
The figures in the right hand margin indicate marks.

Q1		**Answer the following questions:**	**(2x10)**
	a)	Formation of RBC is called as_____.	
	b)	Mitochondria is called as_____.	
	c)	Lysosome is called as_____.	
	d)	Skin is composed of _____ tissue.	
	e)	Phagocytosis is also called as_____.	
	f)	O_2 carrying molecule of cell is_____.	
	g)	CHF stands for_____.	
	h)	Normal heart rate of human is_____.	
	i)	There are _____main types of tissue in human.	
	j)	Normal haemoglobin concentration in human is_____.	

			(2×10)
Q2		**Answer the following questions in 2-3 sentences.**	
	a)	What is the function of nucleus?	
	b)	Mention the function of connective tissue.	
	c)	What is motor end plate?	
	d)	What is the function of Platelets?	
	e)	What is major function of epithelial tissue?	
	f)	What is hypertension?	
	g)	Mention the composition of lymph.	
	h)	Which blood group is called as universal donor?	
	i)	Write various functions of skeletal system?	
	j)	Write the normal ECG with labelling.	

Q3	**a)**	Describe about various types of tissues present in human.	**(10)**
	b)	Mention structure and function of cell with labelled diagram.	**(5)**
Q4	**a)**	Describe about various types of joints with suitable examples.	**(10)**
	b)	Write a short note on various joint disorders	**(5)**
Q5	**a)**	Describe composition and function of blood and its elements	**(10)**
	b)	Describe the physiology of muscle contraction	**(5)**
Q6	**a)**	Describe the structure and function of spleen with labelled diagram	**(10)**
	b)	Write the process of blood coagulation	**(5)**

Q7 **a)** Draw a neat labelled diagram of heart and describe in detail about circulation of   **(10)**
blood.

b) Give a short note on various cardiovascular diseases.   **(5)**

Q8 **a)** What is osseous system? Write the structure and function with a neat labelled   **(10)**

b) diagram.   **(5)**

Write a short note of Blood group.

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1ˢᵗ Semester Regular / Back Examination 2017-18
COMMUNICATIVE ENGLISH
BRANCH : B.Pharma
Time: 3 Hours
Max Marks: 100
Q.CODE: B737
Answer Question No.1 and 2 which are compulsory and any four from the rest.
The figures in the right hand margin indicate marks.

Q1   **Fill up the blank spaces in the sentences below :**   (2x10)
   a)   The English we speak is often not understood because there is _____.
   b)   Type-3 Conditional clause is known as _____.
   c)   In wh-questions, _____ tone suggests greater involvement and friendliness on the speaker's part.
   d)   A syllable is a word or a part of a word that contains _____.
   e)   Odia, Hindi etc. are called _____ timed language.
   f)   The code which is commonly used for communication between human beings is known as _____.
   g)   The quality that allows languages to carry more information than is needed to compensate for information loss during communication is known as _____.
   h)   _____ rule enable us to communicate different kinds of meanings by attaching meanings to words.
   i)   _____ is the accent adopted by educated speakers of English living in and around London.
   j)   The variety of language used by the members of a particular profession is called _____.

Q2   **Answer the following questions:**   (2×10)
   a)   Put the correct form of verbs in the following sentences. (Fill up, Fill out).
      i) _____ this application form and mail it in.
      ii) He_____ the grocery cart with free commodities.
   b)   Hansikais resembling her mother. (Correct the error.)
   c)   "Give me a glass of water". (Put the intonation.)
   d)   The present tense is always used to refer to actions that take place in the present time. (True or False)
   e)   Find out the Consonant Cluster of the following words.
      Sky, Spell, School, Snatch
   f)   Convert the following words into IPA symbols.
      Yesterday, Judge
   g)   I _____ (work) here for five years. (Put the correct verb form.)
   h)   What is Feedback?
   i)   Write the British alternative of the following words.
      Hungry, Cookie
   j)   Change the voice of the following sentences.
      i) Who wrote this book?
      ii) Have you finished work?

Q3 **a)** What is Intonation? Why is it important in oral communication and how does it create **(10)** rapport between a speaker and a listener? Explain with examples.

b) Explain Stress variation with examples. **(5)**

Q4 **a)** What are the advantages and disadvantages of Oral communication? **(10)**

b) Distinguish between Old and New Information. How do they act upon the receiver? **(5)**

Q5 **a)** What is a Syllable? Write the formula and different structures of syllable division with **(10)** examples.

b) What do you understand by Event verb? Discuss with example. **(5)**

Q6 **a)** Explain the different types of Spoken English and their regional usage. **(10)**
b) Written communication is context-independent. Justify. **(5)**

Q7 **a)** Explain the difference between Time and Tense with suitable examples. **(10)**

b) Mark Stress and Intonation in the following sentences. **(5)**
i) Have you heard that word before?
ii) The weather is wavering.
iii) Get me a glass of water.
iv) How did he dare to abuse you?
v) The results are out?

Q8 **a)** "All communication should be people-oriented". Justify your answer with suitable **(10)** example.
b) What is Filler word in communication? Discuss with examples. **(5)**

Q9 **a)** Contrastive Stress has been shown in bold letters in the following utterances. Write **(10)** the intended meaning of the speaker in each utterance.
i) I don't think he should get the job.
ii) I don't think he should get the job.
iii) I don't think he should get the job.
iv) I don't think he should get the job.
v) I don't think he should get the job

b) Distinguish between Filters and Barriers. Explain with examples. **(5)**

3rd Semester Regular/Back Examination 2017-18
REMEDIAL BIOLOGY
BRANCH : B.Pharma
Time : 3 Hours
Max Marks : 100
Q.Code : B1239

Answer Question No.1 and 2 which are compulsory and any four from the rest.
The figures in the right hand margin indicate marks.

Q1   **Chose the correct answer :**   **(2x10)**

a) Which of the following is not a simple tissue
        a. xylem
        b. Parenchyma
        c. Collenchyma
        d. Sclerenchyma

b) Root develops from part of the plant other than radicle is called
        a. Tap root
        b. Fibrous root
        c. Adventitious root
        d. Nodular root

c) Which meristem is present at the base of leaves or internodes on twigs
        a. Apical Meristem
        b. Cambium
        c. Intercalary Meristem
        d. Epidermis

d) Disease caused by *Entamoeba histolytica*
        a. Amebic Dysentry
        b. Bloody diarrhoea
        c. Amebiasis
        d. All the above

e) Exoerythrocytic phase of malarial infection produces
        a. Sporozoites
        b. Merozoites
        c. Both
        d. None of the above

Fill in the blanks

f) Reticulate and parallel venation are characteristics of ----------and ----------------
        respectively

g) ------------------ and ------------------- are the types of food and feeding found in
        Amoeba.

h) Types of Asexual reproduction found in Amoeba are ----------------- and ----------------
        ----------.

i) The placenta attached to developing seed near--------------------

j) Examples of modified undergroung stems are-------------- and --------------

Q.2   **Answer the following**   **(2x10)**

    a) What is phyllotaxy?

    b) Name the disease caused by *taeniasaginata*

    c) What do you mean by parthenocarpy?

    d) What do you mean by epigynous flower?

    e) Name the different stages of cell division in plants

    f) Why lysosomes is called as suicidal bags?

    g) Outline any two modes of control of malaria.

    h) What is the function of Mitochondria?

    i) Give two examples of parallel venation

    j) What do you mean by Zygomorphic.

Q.3 **a)** Explain the structure and life cycle of Silkworm with its economic importance.   **(10)**

     b) Define Exo-erythrocytic phase of malaria with diagram   **(5)**

Q.4 **a)** Describe different modified Root system with examples   **(10)**

     b) Write shortly about Leaf venation with suitable examples   **(5)**

Q.5 **a)** Write the difference between Mitosis and miosis.explain the Miotic cell division   **(2+8)** with diagrams.

     b) Describe the distinguishing characteristics of family Liliaceae   **(5)**

Q.6 **a)** Describe in details about Biological significance and Properties of Nucleic acids.   **(10)**

     b) Write shortly about plant hormones and their importance   **(5)**

Q.7 **a)** Explain Briefly about the Life cycle of Trypanosoma with suitable diagram   **(10)**

     b) Write details on Locomotion in amoeba   **(5)**

Q.8 **a)** Distinguish between family Fabaceae and Solanaceae on basis of Gynoecium   **(8+2)** Characteristics(with diagram).write economic importance of any one of the above family

     b) Distinguish between T.S of Monocot and dicot Stem with diagram   **(5)**

Q.9   **Write notes on any THREE :**   **(5×3)**

    a) Mitosis

    b) Lysosomes

    c) Chloroplast

    d) Double Fertilization

1ˢᵗ Semester Regular/Back Examination 2017-18
REMEDIAL MATHEMATICS
BRANCH : B.Pharma
Time : 3 Hours
Max Marks : 100
Q.CODE : B1240

Answer Question No.1 and 2 which are compulsory and any four from the rest.
The figures in the right hand margin indicate marks.

Q1   **Answer the following questions :**   (2 x 10)

a)   The value of $\begin{vmatrix} 17 & 58 & 17 \\ 19 & 60 & 19 \\ 18 & 59 & 18 \end{vmatrix}$ = _____ (1,0,-1,2)

b)   State the order of $[a \quad b \quad c \quad d]$ = _____ (1x4,4x1,2x1,1x2)

c)   i) The median of the series 1, 3, 2, 8, 6 is _____.
        ii) The mode of the series 1, 2, 2, 3, 2, 4, 1 is _____.

d)   If $\cos\alpha = \frac{3}{5}, \cos\beta = \frac{5}{13}$, $0<\alpha<\frac{\pi}{2}$, $0<\beta<\frac{\pi}{2}$,
        the value of $\cos(\alpha-\beta)$ = _____ $(\frac{63}{65}, \frac{-63}{65}, \frac{56}{65}, \frac{-56}{65})$

e)   The equation of a line passing through the point (-4,-7) and parallel to x-axis = _____   (y+7=0,y-7=0,x+7=0,x-7=0)

f)   The equation of a line passing through the point (5,4) and having
        Slope - 4 is _____
        (4x+y=24,4x-y=24,-4x+y=0,-4x-y=24)

g) $\lim_{x \to 2} \frac{x^4 - 16}{x-2}$ = _____

h)   Find the differential coefficient of e^{tanx} with respect to x.

i) $\int_{-\pi}^{\pi} \cos x \, dx$ = _____.(0,1,-1,2)

j)   *Evaluate*:$\int xe^x dx$.

Q2   **Answer the following questions:** *Short answer type*   (2 x 10)
a)   Find two consecutive natural numbers whose product is 56.
b)   What is singular matrix and give one example?
c)   Define median and give one example.
d)   Find the value of $sin75^0$
e)   Find the distance between the points P (-3, 7) and Q (-1, 9).
f)   Prove that the points (-2, 5), (0, 1) and (2,-3) are collinear.
g)   Evaluate: $\lim_{x \to 0} \frac{sin3x}{sin2x}$
h)   Differentiate e^{cotx} with respect to cosx.
i)   Evaluate:$\int \frac{x}{\sqrt{x+a}} dx$
j)   *Evaluate*:$\int xe^x dx$.

Q3 **a)** Prove that $\begin{vmatrix} 1 & 1 & 1 \\ a & b & c \\ a^2 & b^2 & c^2 \end{vmatrix} = (a-b)(b-c)(c-a)$ (8)

b) Solve: $9x^4 + 20 = 29x^2$ (7)

Q4 **a)** Find the inverse of the matrix A=$\begin{bmatrix} 3 & -3 & 4 \\ 2 & -3 & 4 \\ 0 & -1 & 1 \end{bmatrix}$ (8)

b) Solve: $4x^4 - 4x^3 - 7x^2 - 4x + 4 = 0$, x≠0. (7)

Q5 Compute the mean, median and mode of the following frequency distribution: **(5+5+5)**

Wages (in Rs.)	20-30	30-40	40-50	50-60	60-70
No. of labourers	22	38	46	35	20

Q6 **a)** Show that (1+cotA-cosecA)(1+tanA+secA)=2 (5)

b) If $a\cos\theta + b\sin\theta = p, a\sin\theta - b\cos\theta = q,$
prove that $a^2 + b^2 = p^2 + q^2$ (5)

c) Find the Value of $\sin 18^0$ (5)

Q7 **a)** The four vertices of a quadrilateral are (1, 2), (6, 2), (5, 3) and (3, 4), find the area of this quadrilateral. (8)

b) Find the equations of the altitudes of the triangle whose vertices are A(6,-1),B(-3,8) and C(3,2) (7)

Q8 **a)** Evaluate: $\lim_{x\to 0} \frac{2^x - 1}{\sqrt{1+x} - 1}$ (5)

b) Find $\frac{dy}{dx}$ if $y = (3 - x^2)(x^3 - x + 1)$ (5)

c) Find $\frac{dy}{dx}$ if $y = \log\log x$ (5)

Q9 **a)** Evaluate: $\int \frac{e^x - \sin x}{e^x + \cos x} dx$ (5)

b) Solve: $\int x\sin\frac{x}{2} dx$ (5)

c) Solve: $\int \frac{6x+7}{(x+2)^2} dx$ (5)

1ˢᵗ Semester Back Examination 2017-18
REMEDIAL BIOLOGY
BRANCH: B.Pharma
Time:3 Hours
Max Marks:70
Q.Code: B1238
Answer question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1	**Answer the following questions:**	**(2×10)**
a.	Name the different asexual method of reproduction in amoeba under un-favorable conditions.	
b.	Write down the different phases of Miotic cell division.	
c.	What are the functions of Golgi apparatus.	
d.	Write the difference between *Xylem* and *phloem*	
e.	Enumerate different types of inflorescence in flowering plants.	
f.	Write the functions of Plasma membrane.	
g.	What are different types of vectors for Malariaparasite.	
h.	What is phyllotaxis.	
i.	Give any two examples of Actinomorphic flowers.	
j.	Write any two intermediate hosts in *Taeniasaginata* infection.	

Q2   Describein details about the life history of Plasmodium withnecessary diagram.   **(10)**

Q3   Describe briefly about different modified root systems with examples.   **(10)**

Q4	**a.** Describe the distinguishing characteristics of family Liliaceae.	**(5)**
	b. Write briefly about economic importance of family Liliaceae	**(5)**

Q5	**a.** Describe about the Locomotion in Amoeba.	**(5)**
	b. Discuss about the asexual life cycle of *Plasmodium Falciparum*.	**(5)**

Q6	**Distinguish the following :**	
	a. Tap root and adventitious root	**(5)**
	b. Reticulate and parallel venation	**(5)**

Q7	**a.** What is the difference between Lateral and apical buds in plant	**(5)**
	b. Describe shortly the different constituents of xylem and Phloem.	**(5)**

Q8	**Write ANY TWO short notes**	**(5×2)**
	a. Lysosomes	
	b. Mitosis	
	c. Apical meristem	

Registration No:

Total Number of Pages: 02   **B.Pharm**
PH.1.13

1st Semester Back Examination 2017-18
REMEDIAL MATHEMATICS
BRANCH : B.Pharma
Time : 3 Hours
Max Marks : 70
Q.CODE : B1237
Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1   **Answer all questions :**   **(2 X 10)**

a) Find the value of the determinant $\begin{vmatrix} 5 & 0 & 5 \\ 1 & 2 & 1 \\ 1 & 2 & 3 \end{vmatrix}$

b) Find 2A + I where A= $\begin{pmatrix} -2 & 1 \\ 3 & 4 \end{pmatrix}$ and I= $\begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$

c) Define median.

d) Evaluate: $\cos 2\Pi/3 \cos \Pi/4 + \sin 2\Pi/3 \sin \Pi/4$

e) Find the value of the following trigonometric ratios.
(i) $\sin 210^0$ (ii) $\cos 315^0$

f) Find the area of triangle whose vertices are A(6,3),B(-3,5) and C(4,-2)

g) Determine the equation of a line passing through the point (-4,-7) and parallel to x-axis.

h) Evaluate: $\lim_{x \to 0} \frac{3^x - 2^x}{\tan x}$

i) Find $\frac{dy}{dx}$ if $y = (3 - x^2)(x^3 - x + 1)$

j) Evaluate $\int \frac{2x^3 + 3x - 7}{x^{2/3}} dx$

Q2 **a)** Solve the simultaneous equations 2x + y = 10 and 3x - y = 5 by using Cramer's rule .   **(5)**

b) If $\Delta = \begin{vmatrix} 3 & 8 & 7 \\ -4 & 5 & 6 \\ 7 & 3 & -8 \end{vmatrix}$ **(5)**
Find the minors & co-factors of the elements in the second column. Hence, expand Δ to find its value.

Q3 **a)** Find the the Median of the distribution given below.   **(5)**
Class Interval: 0 – 10   10 – 20   20 – 30   30 – 40   40 – 50   50 – 60
Frequency   :   2   6   8   13   7   4

b) Solve:$x - 2\sqrt{x} - 6 = 0$ **(5)**

Q4 a) Find the value of $\sin 15^0$ and $\cos 15^0$. **(5)**

b) Show that: $\dfrac{\tan A + \tan B}{\tan A - \tan B} = \dfrac{\sin(A+B)}{\sin(A-B)}$ **(5)**

Q5 a) Prove that $(1 + \cot A - \operatorname{cosec} A)(1 + \tan A + \sec A) = 2$ **(5)**

b) Find the equations of the medians of a triangle ABC, the co-ordinates of whose vertices are A(-1,6), B(-3,-9) and C(5,-8) **(5)**

Q6 a) Four points A(6,3),B(-3,5),C(4,-2) and D(x,3x) are given in such **(5)**

a way that $\dfrac{\textbf{Area of triangle DBC}}{\textbf{Area of Triangle ABC}} = \dfrac{1}{2}$, find x.

b) Show that the quadrilateral with vertices (2, -2), (8, 4), (5, 7) & (-1, 1) is a rectangle . **(5)**

Q7 a) Find $\dfrac{dy}{dx}$ where x = a(t + sint) and y = a(1 − cost). **(5)**

b) **(5)**

b) if $y = \sqrt{\log x + \sqrt{\log x + \sqrt{\log x + \cdots \infty}}}$

Show that $(2y - 1)\dfrac{dy}{dx} = \dfrac{1}{x}$.

Q8 a) Evaluate $\int \dfrac{x^3}{(x-1)(x-2)(x-3)} dx$ **(5)**

b) Solve $\int \dfrac{5x-3}{(x+1)(x-3)} dx$ **(5)**

Q1   **Mark the correct option.**   (2 x 10)

a)   Glycerin suppositories contain 92% glycerin and are solidified by the use of
(1)   White wax
(2)   Stearic Acid
(3)   Sodium Stearate
(4)   PEG 400
(5)   Glyceryl triacetate

b)   Aromatic elixirs contain
(1)   Aromatic flavoring agent
(2)   Orange spirit
(3)   Hydroalcoholic soluble aromatic compounds
(4)   None of the above

c)   Syrup USP contains 85% sucrose and has a specific gravity of 1.313. Express the concentration of sucrose in terms of %w/w
(1)   55%
(2)   65%
(3)   75%
(4)   85%(5) Impossible to calculate with the given data

d)   Which of the following operation is not applicable to powders?
(1)   Levigation
(2)   Trituration
(3)   Spatulation
(4)   Resolution
(5)   Pulverization

e)   A prescription calls for 500mg of digoxin dissolved in enough solvent to make 3 fluid ounces. How much will contain approximately 1/30gr. of digoxin?
(1)   5 minims
(2)   4 minims
(3)   8 minims
(4)   10 minims
(5)   6 minims

f)   The term displacement value is related to with the preparation of
(1)   Tablet
(2)   Capsule
(3)   Ointment
(4)   Suppository
(5)   Injectable

g)   Given below (A to E) are the ratio of oil:water:gum for preparing primary emulsion of different oils (i-iv). Match them correctly.
(i)   A. 1:2:1
(ii)   B. 2:2:1
(iii)   C. 3:2:1
(iv)   D. 4:2:1
(v)   E. 2:1:2

h) Determination of iodine value depends upon
- (1) Substitution with iodine for the hydrogen in the fatty acids
- (2) Addition of iodine at the double bond of fatty acids
- (3) Oxidations of the fatty acids by iodine
- (4) Analysis of the iodine content of a fatty acid

i) Which form of sulfur should a pharmacist use when extemporaneously preparing an ointment?
- (1) Cake of sulfur
- (2) Flowers of sulfur
- (3) Precipitated sulfur
- (4) Sublimed sulfur

j) Lassar's paste is
- (1) Zinc oxide ointment
- (2) Zinc oxide paste
- (3) Zinc oxide paste with salicylic acid
- (4) Benzoic acid with salicylic acid ointment

Q2 What are suppositories? What are the various types of suppositories? What is displacement value? Enlist the advantages and disadvantages of the various bases used in the preparation of suppositories? **(1+2+2+5)**

Q3 Describe about the principle involved and preparation techniques for the following dosage form. **(2+2+2+2+2)**
- i. Emulsions
- ii. Solutions
- iii. Effervescent Powder
- iv. Creams
- v. Suppositories

Q4 What do you mean by incompatibility? Describe in detail about physical, therapeutic and chemical incompatibility with relevant examples. **(10)**

Q5 a) How many mg of sodium chloride should be present in the following formula to obtain an isotonic solution? (E value of cocaine hydrochloride is 0.16) **(5)**
Cocaine Hydrochloride 2%
Sodium chloride q.s.
Purified water q.s. 30 mL

b) How many grams of 2% aluminum paste must be mixed with 10% aluminum paste to prepare exactly 120 g of 5% strength? **(5)**

Q6 a) Define prescription and enlist the points that are mentioned in a typical prescription. Write down the English translation of the following Latin terms. **(2.5+2.5)**
- i. b.i.d.
- ii. aa.
- iii. Collun.
- iv. Mist.
- v. O.d.

b) Define the following terms. **(2+1+1+1)**
- i. Posology
- ii. ED50
- iii. LD50
- iv. Therapeutic Index

Q7 a) Write about the classes of extractive preparations and the principle involved in each with examples. **(5)**

b) What are galenicals? What are the three forms of extracts? Mention examples. **(2+2+1)**

Q8 Differentiate between lotion and liniments. **(10)**

1st Semester Back Examination 2017-18
PHARM. CHEMISTRY - I (INORGANIC)
BRANCH : B.Pharma.
Time: 3 Hours
Max Marks: 70
Q.CODE: B1018
Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1   **Answer the following questions :**   **(2 x 10)**
  a) Define astringent.
  b) Define antidote, mention one example with its molecular formula.
  c) What is a Sclerosing agent?
  d) What do you mean by emetics? Write down the structure of sodium potassium tartrate.
  e) Write on anti-infective agents.
  f) What is the haematinics?
  g) Define acidifying agents with examples.
  h) Define buffer solution?
  i) What are filter aids with example?
  j) What do you mean by physiological acid base balance? Explain.

Q2   What are transition elements and their compounds of pharmaceutical importance?   **(10)**

Q3   Define the term suspending agents. Classify the preservatives with example. Mention the methods of obtaining their standards and units of activity of radiopharmaceuticals.   **(10)**

Q4   Write down the composition of ORS as per WHO guidelines. What are major intra and extra cellular electrolytes?   **(10)**

Q5   Define anticaries agents. Mention the role of fluorides in the treatment of dental carries.   **(5+5)**

Q6   Define the term half life of a radioisotope? Write a note on α, β and γ radiation.   **(5+5)**

Q7   Define the term anaesthetics with examples. Mention their mechanism of action. Define and classify respiratory stimulant with examples.   **(5+5)**

Q8   **Write short answer on any TWO :**   **(5 x 2)**
  a) Antidotes.
  b) Nuclear radiophaermaceuticals
  c) Anti oxidants
  d) Irritant purgatives

Registration No:

Total number of pages: 01

B. Pharm.
PH1.9

1ˢᵗ Semester Back Examination 2017-18
PHARMACOGNOSY - I
BRANCH: B.Pharma
Time: 3 Hours
Max Marks: 70
Q CODE: B1091
Answer question No. 1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1		**Objective type questions**	
	i)	Define chemo-microscopy with suitable examples.	**(2x10)**
	ii)	Define stomatal index.	
	iii)	Write down a chemical test for qualitative detection of reducing sugar.	
	iv)	Define secondary metabolites with examples.	
	v)	Write down the biological sources of cod liver oil and wool fat.	
	vi)	How would you qualitatively detect alkaloids in a crude specimen?	
	vii)	Write down the biological source and uses of isabgol.	
	viii)	Define the termpolyploidy.	
	ix)	What is pectin?	
	x)	Write down the names of principle chemical constituents present in castor oil.	

Q2		Explain various methods of evaluation of crude drugs.	**(10)**
Q3		Write explanatory notes on mutation and hybridization.	**(10)**
Q4		Discuss the roles of different phyto-hormones inthe regulation of plant growth.	**(10)**
Q5	**a)**	Discuss different types of adulteration of crude drugs with suitable examples.	**(5)**
	b)	Discuss factors affecting the cultivation of medicinal plants.	**(5)**
Q6	**a)**	Write a note on classification of natural drugs with suitable explanation.	**(5)**
	b)	Mention various methods involved in pest control.	**(5)**
Q7	**a)**	Write down the biological sources, chemical constituents and uses of honey and guar gum.	**(5)**
	b)	Write a note on applications of plant tissue culture as a source of drug molecules.	**(5)**
Q8		Write down the biological source, chemical constituents and uses of kokum butter, agar, tragacanth and shark liver oil.	**(2.5 x 4 = 10)**