

Registration No :

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Total Number of Pages : 01

B.Pharm.
PH.2.9

2nd Semester Back Examination 2017-18
HOSPITAL PHARMACY
BRANCH : B.Pharma
Time : 3 Hours
Max Marks : 70
Q.CODE : C919

Answer question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.
Answer all parts of a question at a place.

- Q1 Answer the following :** (2 x 10)
- a) Define budget with its importance.
 - b) What are the sources of information on drugs?
 - c) What is master formula record, mention its importance.
 - d) Classify hospitals.
 - e) What is mechanical sterilization?
 - f) Classify outpatient dispensing system.
 - g) Differentiate between Bacteriostatic and Bactericidal with examples.
 - h) Mention the importance of ligatures.
 - i) Mention the different storage conditions of Pharmaceuticals.
 - j) What is satellite pharmacy write its importance?
- Q2** Define hospital pharmacy. What is PTC? Discuss it's role in drug safety. (5+5)
- Q3** What is inventory control? Write its function and discuss various methods of inventory control. (4+6)
- Q4** a) Define sterilization, Classify it. (4)
b) Discuss about moist heat sterilization. (6)
- Q5** a) What is drug distribution system? (4)
b) Discuss details about In-Patient Drug distributions. (6)
- Q6** a) Write short notes on Hospital organizations. (4)
b) Explain details about Drug store management. (6)
- Q7** a) Define DIS, Mention its functions. (4+2)
b) Write the minimum Qualifications of the pharmacist to run DIS. (4)
- Q8 Write Short notes on any TWO :** (5 x 2)
- a) Hospital formulary
 - b) VED Analysis
 - c) Surgical Products.

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B.Pharm
BP203T

**2nd Semester Regular Examination 2017-18
BIOCHEMISTRY – THEORY**

BRANCH : B.Pharma

Time : 3 Hours

Max Marks : 75

Q.CODE : C797

Answer Question No.1 (Part-A) and 02 (Part-B) which are compulsory and any two from Part-C.

The figures in the right hand margin indicate marks.

Answer all parts of a question at a place.

Part- A

- Q1 Objective Answer Type Questions (Answer All) :** (2 x 10)
- a) What is redox potential? Mention its significance.
 - b) What is Gluconeogenesis? Mention its substrate.
 - c) What is transcription?
 - d) What is energy rich compound? Classify it with suitable examples.
 - e) Distinguish between DNA and RNA.
 - f) What is hypercholesterolemia? Mention its causes.
 - g) Write down any two therapeutic application of enzyme.
 - h) Write down the significance of HMP Pathway.
 - i) Define Km. Write its significance.
 - j) Distinguish between oxidative phosphorylation and substrate level phosphorylation.

Part- B

- Q2 Focused-Short Answer Type Questions (Answer Any Seven) :** (5 x 7)
- a) Write notes on Diabetes mellitus
 - b) Write notes on Translation.
 - c) Write down about β -Oxidation of Fatty acids.
 - d) Write notes on Glycogenesis.
 - e) Describe the Urea cycle.
 - f) Write down about Competitive Enzyme Inhibition.
 - g) Give a notes on ETC.
 - h) Define Carbohydrate. Classify it and mention the biological importance of it.
 - i) Write down the synthesis of 5 HT and mention its significance.

Part-C

Long Answer Type Questions (Answer Any Two)

- Q3** Describe the reactions of Citric acid cycle. Mention its significance and energetic. (10)
- Q4** Write down the catabolism of Phenylalanine and Tyrosine and mention its disorders. (10)
- Q5** Write down the catabolism of Purine nucleotide and mention the disorders related to it. (10)
- Q6** Define enzyme. Classify it with suitable examples. Discuss the factors affecting the enzyme activity. (10)

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Total Number of Pages : 04

B.Pharm
15PH205

**2nd Semester Regular / Back Examination 2017-18
BUSINESS COMMUNICATION IN ENGLISH**

BRANCH : B.Pharma

Time: 3 Hours

Max Marks : 100

Q.CODE : C597

Answer Section 'A' which is compulsory and any FOUR from Section 'B'.

The figures in the right hand margin indicate marks.

Answer all parts of a question at a place.

Section 'A'

Q1 Fill up the blank spaces in the sentences below : (2 x 10)

- a) Communication which is started at lower level and is addressed to someone of higher level is known as _____.
- b) The tendency of thinking that one's own culture is superior to others is described as _____.
- c) Listening, Speaking, Writing and Reading are known as _____.
- d) The ability to absorb and retrieve factual information contained in the text is referred to as _____.
- e) The sentence that bears the central theme or idea of a paragraph is called _____.
- f) A letter communicating a candidate's selection for a job is an example of _____ message.
- g) Grapevine is _____ in nature.
- h) A local or restricted communications network, especially a private network created using World Wide Web software is known as _____.
- i) The four Ps of presentation are planning, preparing, practising and _____.
- j) An issue-based report is related to _____.

Q2 Answer the following Questions : Short answer type : (2 x 10)

- a) What do you mean by Proposal?
- b) Distinguish between GD and Debate.
- c) What is Diagonal communication?
- d) Make the sentence bias-free: "Three out of four women prefer our brand of dish soap."
- e) Write any two examples of informal-internal channels of communication.
- f) Give an example of coherence.
- g) What do you understand by Brainstorming?
- h) What is Empirical Investigation?
- i) What are the characteristics of a good team-player?
- j) What is Reverse Chronological Order?

Section 'B'

Q3 a) As the Regional Manager (Marketing) of a pharmaceutical company, draft an e-mail message to all of your sales people asking them if they would be available for a sales promotion meeting with the Managing Director next week. (10)

b) "The role of Audience in presentation is vital". Discuss. (5)

- Q4 a)** Being a Pharmaceutical Entrepreneur, you have purchased a Tablet Press for your production unit. Unfortunately, it does not work properly. Write a letter to the manufacturer for immediate service or an exchange of the product. **(10)**
- b)** Discuss the different types of Informational Reports. **(5)**

- Q5 a)** Discuss the importance and the different aspects of Cross-cultural communication. **(10)**
- b)** What is inferential comprehension? **(5)**

- Q6 a)** Read the passage given below and answer the questions that follow. **(10)**

Autism spectrum disorders (ASD) are a range of psychological conditions characterized by abnormalities in social interaction, behaviour, interests, and communication. The five forms of ASD include classical autism, Asperger syndrome, Pervasive Developmental Disorder, Rett syndrome, and Childhood Disintegrative Disorder. Although the number of reported cases of ASD has experienced a dramatic increase in the past 25 years, the majority of doctors agree that this increase is due to changes in diagnostic practices and advances in the understanding of psychiatric health. While there is no general consensus among medical professionals about the underlying causes of ASD, theories range from genetic inheritance to environmental factors. One of the most controversial theories to have emerged in recent times is the hypothesis that ASD could be caused by the MMR vaccine, which is an immunization against measles, mumps, and rubella that was first developed in the 1960's. The vaccine is a mixture of three live viruses and is administered via injection to children when they are one year old. By the late 1990's, this vaccination had led to the near-eradication of measles in countries that employed widespread inoculation. However, a combination of spurious scientific data and alarmist media attention led to an entirely preventable resurgence in measles cases in the early 21st century.

The first claims of a connection between the MMR vaccine and autism were made in 1998, when an article in *The Lancet*, a respected British medical journal, reported on eight cases of autism that could possibly be traced back to the administration of an MMR vaccine. The parents of the children in this study contended that the symptoms of autism in their children developed within days of vaccination. During a press conference, Andrew Wakefield, one of the authors of the article, called on British doctors to stop giving combined MMR vaccines, instead advocating for individual inoculations against measles, mumps, and rubella.

Following the publication of this article, Wakefield published several follow-up papers that further questioned the safety of the MMR vaccine. An onslaught of media coverage then began. Parents appeared on television sharing anecdotal evidence linking their child's inoculation to the onset of ASD. The popular press quickly seized upon this story; in 2002, over 1200 articles were written about the link between MMR vaccines and ASD. Less than 30% of these articles mentioned that an overwhelming amount of scientific evidence suggested that these vaccinations were completely safe.

Since the initial panic, fears that MMR vaccines cause ASD have generally subsided. A survey completed in 2004 showed that only 2% of people in the United Kingdom thought that there was a legitimate link between MMR vaccines and ASD. Fears were most likely allayed when, in 2004, an investigative reporter discovered that Andrew Wakefield had received a large sum of money from lawyers seeking evidence to use in cases against vaccine manufacturers. It was then discovered that Wakefield had applied for patents on an alternate MMR vaccine. These severe conflicts of interest damaged the credibility of Wakefield's study beyond repair. In 2010, Wakefield was tried by Britain's General Medical Council under allegations that he had falsified data

and manipulated test results. The Council found that Wakefield had acted “dishonestly and irresponsibly,” and consequently The Lancet officially retracted Wakefield’s 1998 article.

The anti-MMR vaccine panic that arose immediately after Wakefield’s article was published had a significant negative effect on the health of thousands of children. Once the controversy began, the number of parents in the United Kingdom who inoculated their children with the MMR vaccine experienced a sharp decline. Not surprisingly, the number of reported cases of measles increased; while there were only 56 confirmed cases of measles in the UK in 1998; in 2008 there were over 1300. Between 2002 and 2008, there were outbreaks of measles throughout Europe and North America. These outbreaks cost millions of dollars in health care and resulted in the deaths of dozens of children and adults with compromised immune systems.

Who is to blame for these deaths? It is easy to hold Andrew Wakefield accountable, but the media must also bear some of the responsibility. The media’s appetite for a sensational medical story overshadowed the fact that there was very little scientific evidence behind Wakefield’s claim. Although Wakefield is certainly not the first person to publish fraudulent scientific findings in a respected medical journal, the magnitude of this event was anomalous, as most medical hoaxes are discredited before they can reach the popular media. While The Lancet should not have published Wakefield’s article without checking it thoroughly, the popular media should not have blown the study out of proportion without fully considering the consequences.

Questions :

- a) What is the primary purpose of the passage?
 - b) As used in paragraph 1, which is the best antonym for “spurious” and which is the best synonym for “anomalous”, as used in paragraph 6?
 - c) Summarize the author’s explanation for “the increase in reported cases of ASD over the past 25 years” in a single sentence.
 - d) Which of the following pieces of evidence from paragraphs 2 and 3 support(s) the author’s claim that popular media is partially responsible for creating unnecessary panic?
 - i) “An article published in The Lancet, a respected British medical journal, reported on eight cases of autism that could possibly be traced back to the administration of an MMR vaccine.”
 - ii) “In 2002, over 1200 articles were written about the link between MMR vaccines and ASD. Less than 30% of these articles mentioned that an overwhelming amount of scientific evidence suggested that these vaccinations were completely safe.”
 - iii) “Parents appeared on television sharing anecdotal evidence regarding the links between their child’s inoculation and the onset of ASD.”
 - e) As based on its use in paragraph 4, the phrase “conflicts of interest” means situations in which people
 - i) unethically accept large sums of money
 - ii) have interests that fail to accord with those of the mainstream media
 - iii) falsify data and manipulate test results
 - iv) have personal interests that threaten their official objectivity
- b) Make notes on the passage cited above. (5)**

- Q7 a) As a Head of the R & D Department of a Pharmaceutical company, prepare a report on the different aspects of “Acetaminophen” which is to be submitted before the Managing Director. (10)**
- b) Due to the impact of globalisation, the business organisations have developed informal-external channel of communication. Discuss with example. (5)**

- Q8** a) Prepare a letter of application of your own for the position of Research Analyst addressing to the HR manager of Indo-American Pharmaceuticals for its South Zone, as per the advertisement published in the Eastern Times on dt. 30.04.2018. **(10)**
- b) Differentiate between Soft skill and Communication skill. **(5)**
- Q9** a) Imagine that you are the Chief Manager (Sales) of a Pharmaceutical company. Your company has launched a new drug. Deliver a detailing of the product to a group of physicians. **(10)**
- b) What do you mean by sentence linkers? Explain its various aspects. **(5)**

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B.Pharm
15PH202

2nd Semester Back Examination 2017-18

HAP - II

BRANCH : B.Pharma

Time : 3 Hours

Max Marks : 100

Q.CODE : C1120

Answer part A which is compulsory and any four from the Part –B

The figures in the right hand margin indicate marks.

Answer all parts of a question at a place.

Part-A (Answer all the questions)

Q1 Answer the following : (2 x 10)

- a) Write any two functions of Oxytocin.
- b) Write the Names of fibers present in Dermis of skin.
- c) What do you mean by IRV and ERV
- d) Write the location and functions of medulla oblongata.
- e) Enumerate any two parathyroid hormones.

Fill in the blanks :

- f) ----- And ----- are supporting cells that helps neurons to function and thrive.
- g) Aldosterone increases -----of Na⁺ in kidney and which in turns causes-----.
- h) Together the ----- and -----regulates the secretion of virtually every hormone in the body.
- i) Prolactin produced by----- and helps in -----
- j) Spermatozoa head and middle piece contains ----- and -----

Answer the following

Q2. a) Write any two diseases of Gastrointestinal tract. (2 x 10)

- b) Write the different subdivisions of PNS.
- c) High frequency and Low frequency sounds are detected near which parts of cochlea.
- d) Write the names of bones present in Middle ear.
- e) Enumerate the 10th and 11th cranial nerves.
- f) What are the functions of Cowper's Gland?
- g) Define Hypothyroidism and hyperthyroidism.
- h) Write the main functions of hepatic Portal vein.
- i) Enumerates any two hormones of posterior pituitary write their functions.
- j) What are the different parts of midbrain?

Part - B (Answer any Four)

Q.3 a) Draw the structure of different parts of human brain with neat labeled diagramme and write their important functions. (10)

b) Write the difference between Sympathetic and Parasympathetic nervous system. (5)

Q.4 a) Describe briefly about the different parts of Outer, Middle and Inner ear with diagramme. (10)

b) Explain the Physiology of hearing. (5)

- Q.5** a) Draw the structure of Human digestive Tract with neat labeled diagramme and write the functions of Liver and pancreas. **(8+2)**
b) Describe the process of digestion of foods in upper GIT. **(5)**
- Q.6** a) Write the structure and functions of human kidney with neat labelled diagramme. **(10)**
b) Write a note on acid base balance in nephron. **(5)**
- Q.7** a) What are the different organs involved in human respiration. Write detail physiology of gaseous exchange between lungs and tissue. **(10)**
b) Write the functions of Diaphragm and Rib cage in process of Respiration. **(5)**
- Q.8** a) Enumerates the different hormones in Testes and ovary. Draw the structure of female reproductive parts with neat labeled diagram. Write the functions of Fallopian tube and ovary. **(8+2)**
b) Write the physiological roles of LH and progesterone in Menstrual cycle. **(5)**
- Q.9** **Write notes on any THREE :** **(5 x 3)**
a) Reflex action.
b) Gastro esophageal reflux disorder(GERD)
c) Electroencephalogram
d) Gluconeogenesis.

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Total Number of Pages : 02

B.Pharm
15PH206

**2nd Semester Back Examination 2017-18
HOSPITAL AND COMMUNITY PHARMACY**

BRANCH : B.Pharma

Time : 3 Hours

Max Marks : 100

Q.CODE : C917

Answer Section 'A' which is compulsory and any Four from Section 'B'.

The figures in the right hand margin indicate marks.

Answer all parts of a question at a place.

SECTION-A

Q1 Answer the following :

(2 x 10)

- In inventory control ABC stands for _____.
- Objectives of Pharmacy and Therapeutic Committee are _____ and _____.
- Terminal method of family planning for male is _____ and for female is _____.
- _____ method is used for distribution of non-charged floor stock drugs.
- _____ numbers of pharmacists are required for a 500 bedded hospital.
- Temperature ranges for cold and cool storage conditions are _____ to _____ and _____ to _____ respectively.
- _____ is used for barrier method of family planning.
- Small Hospitals have bed strength of _____.
- Large volume paranterals are multidose preparations. True / False
- _____ is used for Dry heat sterilization .

Q2 Answer the following questions :

(2 x 10)

- Give examples of the products sterilized by using Gaseous sterilization method.
- In inventory control what do you mean by lead time?
- Composition of Universal antidote.
- What do you mean by Master formula card.
- Mention the advantages of Unit dose dispensing system.
- What are adhesive tapes?
- Classify hospitals according to size.
- Composition of Ethics committee.
- Advantages and disadvantages of safe period method of family planning.
- What do you mean by OTC drugs?

SECTION-B

- Q3**
- Describe the contents, distribution and revision of Hospital formulary system. **(10)**
 - Write about Infection control committee. **(5)**
- Q4**
- Describe the techniques of Inventory control. **(10)**
 - Write notes on Purchase procedure of drugs. **(5)**
- Q5**
- Define Family Planning. Describe the methods of family planning with suitable examples. **(10)**
 - Write notes on different fibers used as surgical dressings. **(5)**

- Q6** a) Mention and describe the different methods of drug distribution to in-patients. **(10)**
b) Write about the emergency treatment of snake bite. **(5)**
- Q7** a) Describe the different methods of sterilization with suitable examples of products sterilized. **(10)**
b) Write about the role of pharmacist in community health care and education. **(5)**
- Q8** a) Describe elaborately Pharmacy and Therapeutic committee. **(10)**
b) Define and write the functions of Hospital pharmacy. **(5)**
- Q9** a) Define and classify Hospital. Write down the functions of Hospitals. **(10)**
b) Describe the responsibilities of Hospital pharmacist. **(5)**

- Q2 Answer the following questions: Short answer type: (2 x 10)**
- a) Why carbon is tetravalent?
 - b) Why chloroacetic acid is more acidic than acetic acid ?
 - c) What is rectified spirit?
 - d) Write the structure of Ehtanal and 1,1 dichloro Methane.
 - e) Write the IUPAC Name of $\text{CH}_3\text{COOCH}_3$ & CH_3COCH_3 .
 - f) What Is Lucas Reagent?
 - g) What is inductive effect ?
 - h) What is neucleophile ?
 - i) Explain Ozonolysis Reaction ?
 - j) What is wurtz Reaction ?

Part – B (Answer any four questions)

- Q3** a) Define the terms 'Hybridization'. Discuss Sp^3 hybridizations with suitable examples. (10)
b) Write a short note on hydrogen bonding. (5)
- Q4** a) Mention the general method of preparation and chemical reaction of alkanes. (10)
b) Write notes on Bohr's atomic model. (5)
- Q5** a) Outline the general methods of preparation & Chemical Reaction of alcohol. (10)
b) How you distinguish $1^\circ, 2^\circ$, & 3° Alcohol? (5)
- Q6** a) Explain different Quantum numbers. (10)
b) Write a brief note on Free radical substitution reactions. (5)
- Q7** a) Write a short note on Nucleophilic Substitution reactions. (10)
b) Explain markovnikove rule with suitable examples. (5)
- Q8** a) Discuss Bayer's strain theory with suitable examples. (10)
b) Explain the conformational analysis of cyclohexane. (5)
- Q9** a) Mention the general method of preparation and chemical reaction of carboxylic acid. (10)
b) Explain Aldol Condensation reaction. (5)

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Total Number of Pages : 02

B.Pharm
15PH203

2nd Semester Back Examination 2017-18

PHARMACOGNOSY- I

BRANCH : B.Pharma

Time: 3 Hours

Max Marks : 100

Q.CODE : C796

Answer Part-A which is compulsory and any four from Part-B.

The figures in the right hand margin indicate marks.

Answer all parts of a question at a place.

Part – A (Answer all the questions)

Q1 Answer the following questions : (2 x 10)

- a) Cork cells are present in root (True/False)
- b) Family of Ginger (Gingiberaceae/Rubiaceae)
- c) Curcumin can be isolated from _____. (Termeric/Ginger)
- d) The major pungent constituent of capsicum _____.
(Capsaicin/Carotenoid)
- e) Kokum butter is obtained from _____.
(Garciniaindica/Saracaindica)
- f) Family of Gambir (Leguminosae/Rubiaceae).
- g) Triphalachurna contain equal parts of three _____.
(Myrobalans/Sarivas)
- h) Sensory evaluations is also called (Microscopy/Macroscopy)
- i) Ethylene is a _____. (Plant hormone/Micronutrient)
- j) Cannabinoid is obtained from _____. (Colophony/Cannabis)

Q2 Answer the following questions (2 x 10)

- a) What is the significance of stomatal index?
- b) Set forth examples of some plant growth regulators.
- c) Difference between sexual & asexual propagation.
- d) What do you mean by polyploidy?
- e) Who is C.A. Seydler?
- f) Difference between primary metabolite & secondary metabolite
- g) Chemical constituent and uses of asafoetida.
- h) What is Hybridization?
- i) What is plant mutant?
- j) Biological source and uses of wool fat.

Part- B (Answer any four questions)

Q3 a) What is crude drug? Classify them with suitable example. (10)
b) The herbal medicine is as old as human civilization. Enumerate in brief. (5)

Q4 a) Detail pharmacognostic study of Acacia. (10)
b) How you point wise differentiate between organised and unorganised drug? (5)

Q5 a) What is pest? Describe the methods of pest control management. (10)
b) Enumerate in brief about different class of plant hormones. (5)

Q6 a) What is Resin? Write about the biological source, chemical constituent & uses of podoplyllum and myrobalan. (10)
b) Why the secondary metabolites are useful for us then the plant itself? (5)

- Q7** a) Adulteration is a common phenomenon in each and every field. How the crude drugs it can be substituted and what are the procedure to detect them? **(10)**
b) What steps we can take for the quality control of crude drugs? **(5)**
- Q8** a) Discuss in detail about the factors that affect the yield & percentage of secondary metabolite during the cultivation of medicinal plant. **(10)**
b) Why Goldbeater skin test is performed? Describe the detail procedure. **(5)**
- Q9** **Write short note on (any THREE) :** **(5 x 3)**
- a) Marine drug
 - b) Types of soil
 - c) Cod-liver oil
 - d) Myrrh
 - e) Benzoin

Registration No :

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Total Number of Pages : 03

B.Pharm
15PH201

2nd Semester Back Examination 2017-18

PHARM ANALYSIS - I

BRANCH : B.Pharma

Time : 3 Hours

Max Marks : 100

Q.CODE : C700

Answer Part-A which is compulsory and any four from the Part-B.

The figures in the right hand margin indicate marks.

Answer all parts of a question at a place.

Part-A

1. **Answer the Followings :** (2 x 10)
- a) Differentiate reproducibility and repeatability.
 - b) Define acid and base according to Lewis concept. Give examples.
 - c) What is significant digit? How many digits are significant in 0.00050kg?
 - d) What is a mixed indicator? Give example.
 - e) What is the role of nitrobenzene in precipitation titration?
 - f) Name two indicators used in non-aqueous method of titration.
 - g) Differentiate positive electrode potential and negative electrode potential.
 - h) Classify redox indicators with suitable examples.
 - i) Write the structure and use of EDTA.
 - j) What is titration error?
2. **Choose the correct answer :** (2 x 10)
- a) Give the formula for finding equivalent weight for acid:
 - (a) Mol. Wt./Acidity
 - (b) Mol. Wt./Basicity
 - (c) Mol. Wt./ Valency
 - (d) None of the above
 - b) The substance which can be directly weighed and diluted to a definite volume to get a definite strength is called:
 - (a) Primary Standard
 - (b) Secondary standard
 - (c) Tertiary standard
 - (d) Perfect standard
 - c) Which of the following is a self indicator?
 - (a) Pot. Dichromate
 - (b) Pot. Permanganate
 - (c) Ferric cyanide
 - (d) All of the above
 - d) Which alkali methoxide is mostly preferred for non-aqueous titrations?
 - (a) Pot. Methoxide
 - (b) Lithium methoxide
 - (c) Sod. Methoxide
 - (d) None of these

- e) Iodometry titration quantifies:
 - (a) Acidifying agent
 - (b) Oxidizing agent
 - (c) Reducing agent
 - (d) Both b & c
- f) Which of the following error cannot be rectified?
 - (a) Personal
 - (b) Random
 - (c) Reagent
 - (d) Error of method
- g) Which of the following is true?
 - (a) All chelates are complex
 - (b) All complex are chelates
 - (c) Chelates are Ligands
 - (d) All of these
- h) Which of the following is a method of precipitation titration?
 - (a) Mohr's method
 - (b) Fajan's method
 - (c) Volhard's method
 - (d) All of these
- i) Which of the following is not an indicator?
 - (a) Methyl red
 - (b) Methyl orange
 - (c) Methyl pink
 - (d) Methyl yellow
- j) The titration in which silver nitrate is used as a titrant is called:
 - (a) Mercurometric titration
 - (b) Limit test
 - (c) Argentometric titration
 - (d) None of these

Part-B

- 3. a) With the help of representative graph, explain the titration curve of a strong acid titrated with a strong base. What idea is gathered from such graphs? (10)
b) Describe rules for retaining significant digits with suitable examples (5)
- 4. a) Name two theories of indicators. With the help of these theories, explain the concept of colour change of acid-base indicators. (10)
b) Add a note on Ideal characteristics of primary standard. (5)
- 5. **Write notes on :**
 - a) Solvents used in non-aqueous titration (5)
 - b) Preparation and standardization of 0.1N TBAH (5)
 - c) Estimation of Adrenaline (5)
- 6. a) Describe the principle behind Mohr's method and Volhard's method of titration. (10)
b) Give the procedure for assay of NaCl. (5)

7. a) Write a note on types of complexometric titrations. How can you estimate two metal ions present in a mixture? (10)
b) Describe the method of estimation of calcium by EDTA. (5)
8. a) Write the theory of redox titrations. How will you calculate strength and equivalent weights of oxidizing and reducing agents? Explain with suitable examples. (3 + 7)
b) Write a note on preparation and standardization of 0.1N KMnO_4 solution. (5)
9. **Write short note on :**
- a) Handerson-Hasselbalch's equation and its application. (5)
b) Types of errors (5)
c) Amino acid titrations (5)

Registration No :

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Total Number of Pages : 01

B.Pharm.
PH.2.10

2nd Semester Back Examination 2017-18
PHARM CHEMISTRY- II (ORG. CHEM-I)
BRANCH : B.Pharma
Time : 3 Hours
Max Marks : 70
Q.CODE : C1034

Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.
Answer all parts of a question at a place.

- Q1** Answer the following questions: (2 x 10)
- a) What are nucleophiles? Give examples.
 - b) Explain Diel's Alder Reaction.
 - c) Write Wurtz Reaction.
 - d) Define Markonikov's rule with example.
 - e) Define carbocation. How it is formed?
 - f) Write the structure and give the IUPAC name of chloroform.
 - g) Define Saytzeff rule.
 - h) Explain the basicity of amines.
 - i) Write Williamson's synthesis.
 - j) What are conjugate dienes? Give example.
- Q2** a) Write any five methods of preparation of Alkanes. (5)
b) Write any five chemical properties of Alkanes. (5)
- Q3** a) Write a note on Quantum numbers. (5)
b) Define chemical bonding and explain electrovalent bond with examples. (5)
- Q4** a) Define Alkenes and write any four methods of preparation of Alkenes. (5)
b) Explain Hydrogen Bonding. (5)
- Q5** a) Differentiate between orbitals and orbitals. (5)
b) Explain Baeyer strain theory. (5)
- Q6** a) Write any five methods of preparation of Alcohols. (5)
b) How you can distinguish primary, secondary and tertiary alcohol. (5)
- Q7** Explain the Bohr's Atomic theory and its limitations. (10)
- Q8** Write short answer on any TWO: (5 x 2)
- a) Explain SN² reaction mechanism with suitable examples.
 - b) Tetra co-valency of Carbon.
 - c) Inductive & Electrometric effect.
 - d) Hybridization