14/12/2011. F.N - 01C

Code No.: **6509**

FACULTY OF PHARMACY

B.Pharmacy II Year I Semester (Main) Examination, December 2011

PHARMACEUTICAL ANALYSIS-I

(Chemical Analysis)

Time : 3 Hours]   [Max. Marks : 70

*Answer **all** questions.*
All questions carry equal marks.

1. (a) (i) Discuss about significant figures and rules for computation of analytical
        results.   4+4

    (ii) Explain about methods of expressing concentration.   6

                                    Or

    (b) (i) What is primary standard and secondary standard?

        Write the idea requirements for a primary standard.   2+4

    (ii) Define the terms accuracy and precision. Explain the difference between
        them with the help of suitable example.   8

2. (a) (i) Discuss the theories of neutralization indicators.   7

    (ii) Explain about neutralization curve for a titration between strong acid and
        strong base.   7

                                    Or

    (b) (i) Define buffer solution, buffer action and buffer capacity. Explain the role of
        buffers in pharmaceutical analysis.   (3+5)

    (ii) Discuss Law of mass action and its significance.   6

3. (a) (i) Discuss the principles of oxidation-reduction titration and write a note on
        redox indicators.   4+4

    (ii) Explain the terms co-precipitation and post precipitation. Write the difference
        between them.   6

                                    Or

    (b) (i) Explain Mohr's method for determination of chlorides and write the
        precautions to be taken in the above method.   8

    (ii) Discuss the various filtering media and devices aninmitOmetric analysis.6

                                                                        [P.T.O.

4. (a) (i) Discuss the principle involved in complexometric titration. Explain about masking and demasking agents.   4+6

   (ii) Write a note on solvents used in non-aqueous titration.   4

Or

(b) (i) Explain the principle of non-aqueous titration. How do you estimate a weakly basic substance by non-aqueous method.   4+4

   (ii) Write a note on pM indicators.   6

5. (a) (i) Define the terms empirical and molecular formula. Write the molecular formulae for potassium permanganate, potassium dichromate and write the redox reaction equations of the above two compounds with balancing the equations.   2+2+6

   (ii) Calculate the molarity of sulphuric acid when 25ml of im sulphuric acid neutralized with 50ml of decinormal sodium hydroxide.   4

Or

(b) (i) Calculate number of moles of sodium carbonate in 500ml of 0.2m sodium carbonate.   4

   (ii) Define the terms with equations :   2V2x4=10
      (A) Normality
      (B) Molarity
      (C) Molality
      (D) Theoretical yield. 4

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Code No.: **6508**

FACULTY OF PHARMACY

B.Pharmacy II Year I Semester (Main) Examination, December 2011

PHARMACEUTICAL ENGINEERING-I

Time : 3 Hours]   [Max. Marks : 70

Answer **all** *questions.*
All questions carry equal marks.

1. (a) (i) List various types of corrosion, explain graphite corrosion, dezincification
and biological corrosion.   10

   (ii) Describe two methods to combat corrosion.   4

Or

   (b) (i) Explain the properties, composition, merits and demerits of stainless steel
and its alloys.   7

   (ii) Describe various types of glasses. Give their composition along with merits
and demerits.   7

2. (a) (i) Derive an equation for velocity of flow of fluids by venturi meter .   8

   (ii) Derive an equation for Logarithmic mean temperature difference.   6

Or

   (b) (i) Derive an equation for pressure difference for fluids in static.   9

   (ii) State Fourier's law and define thermal conductivity and its applications. 5

3. (a) (i) Describe the principle, construction and working of a reciprocating pump.7

   (ii) Describe the construction and working of pneumatic conveyor with a labelled
diagram.   7

Or

   (b) (i) Describe the functioning of a diaphragm valve with labelled diagram.   4
   (ii) Explain the construction and working of a centrifugal pump.   7
   (iii) List the differences between compressors and blowers.   3

4. (a) (i) Describe the refrigeration cycle functioning on compression-absorption cycle
with labelled diagram.   10
   (ii) Describe secondary refrigerants and their utility.   4

Or

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(b) (i) Describe the functioning of air conditioning with labelled diagram.   10

    (ii) Describe any two methods of determination of humidity.   4

5. (a) (i) Explain the principle, construction, working of rotary continuous filter with labelled diagram.   8

    (ii) Define filter media and filter aids along with examples.   6

<div align="center">Or</div>

(b) (i) Explain the construction and working of perforated basket centrifuge with labelled diagram.   8

    (ii) Give any two equations to explain the rate of filtration.   6

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Code No.: **6511**

FACULTY OF PHARMACY

B.Pharmacy II Year I Semester (Main) Examination, December 2011

COMMUNICATIVE ENGLISH

Time : 3 Hours]   [Max. Marks : 70

Answer **all** *questions.*
All questions carry equal marks.

Part A - (Marks : 4 x 5 = 20)

1.   (a) Role and importance of communication.

Or

(b) Interpersonal communication is an important area of Communication. Explain.

2.   (a) Write about Presentation skills.

Or

(b) Write about Group Discussion.

3.   (a) Write about body language for interviews.

Or

(b) What are the polite expressions of agreeing and disagreeing.

4.   (a) How to use Thesaurus?

Or

(b) Role of Wit and Humour in Communication.

Part B - (Marks : 4 x 5 = 20)

1.   Give the antonyms for the following :
     (a) Cool   (b) Healthy   (c) Rough
     (d) Construction   (e) unrest

2.   Give the synonyms for the following :
     (a) overflow   (b) probability   (c) futile
     (d) bravery   (e) retreat

3.   Explain the following one word *substitutes* in one or two sentences.
     (a) Oases   (b) Burglar   (c) Attic
     (d) Counteract   (e) Subconscious

[P.T.O.

4. Rewrite the following sentences as directed:

   (a) Wisdom is _____ gift of god (A, An and The)

      (Use appropriate article)

   (b) Ravi said, "The horse died in the night".

      (Change into indirect speech)

   (c) By the time I reached the station, the train _____ (leave)

      (Use the correct form of verb)

   (d) A wall is being constructed by my uncle.

      (Change into active voice)

   (e) My uncle lived in America _____ ten years.
      (Use appropriate preposition)

Part C - (Marks : 5 x 6 = 30)

1. (a) Discuss C.E.M. Joad's Our Own Civilization in terms of application today.

Or

    (b) Is there any cut off point for word civilization in view of C.E.M. Joad?

2. (a) What made Carnegie's life always full and interesting?

Or

    (b) How did Carnegie's 'Gospel of Wealth' influence the modern world?

3. (a) Write Swami Vivekananda's philosophy in 'The Secret of work'.

Or

    (b) Will misery come to an end in Swami Vivekananda's 'The Secret of work'.

4. (a) Why does School failure occur? In the opinion of Benjamin Spock?

Or

    (b) Why do some boys turn their irritation towards their mother? In 'The Generation Gap'.

5. (a) Write a Business letter for the placement of an order for the articles, items etc., required.

Or

    (b) Write a letter to your friend describing Osmania University and its academic atmosphere.

Code No.: **6510**

FACULTY OF PHARMACY

B.Pharmacy II Year I Semester (Main) Examination, December 2011

PHARMACEUTICAL MICROBIOLOGY

Time : 3 Hours]   [Max. Marks : 70

Answer **all** *questions.*
All questions carry equal marks.

1. (a) (i) Describe the different techniques used for isolation of pure cultures.   10

   (ii) Define and classify microbes with suitable examples.   4

Or

   (b) (i) Explain the principle and application of electron Microscopy.   8

   (ii) Write about morphological features of fungi.   6

2. (a) (i) Discuss the morphology and reproduction in bacteria.   10

   (ii) Write about 'fermentation of carbohydrates'.   4

Or

   (b) (i) Define staining and discuss about differential staining technique.   6

   (ii) Write about 'starch hydrolysis test'.   4

   (iii) Discuss about pasteurization methods.   4

3. (a) (i) Define sterilization, enlist different methods of sterilization and describe the construction and operation of a 'horizontal autoclave'.   10

   (ii) Write about importance of sterilization indicators.   4

Or

   (b) (i) Define disinfection and discuss the following factors that influence disinfection process.   10

      (A) Concentration of disinfectant

      (B) Time of exposure

      (C) Temperature.

   (ii) Write about evaluation of disinfectants by Rideal Walker coefficient test.   4

[P.T.O.

Code No.: **6510**

FACULTY OF PHARMACY

B.Pharmacy II Year I Semester (Main) Examination, December 2011

PHARMACEUTICAL MICROBIOLOGY

Time : 3 Hours]   [Max. Marks : 70

Answer **all** *questions.*
All questions carry equal marks.

1. (a) (i) Describe the different techniques used for isolation of pure cultures.   10

    (ii) Define and classify microbes with suitable examples.   4

    Or

   (b) (i) Explain the principle and application of electron Microscopy.   8

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2. (a) (i) Discuss the morphology and reproduction in bacteria.   10

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3. (a) (i) Define sterilization, enlist different methods of sterilization and describe the construction and operation of a 'horizontal autoclave'.   10

    (ii) Write about importance of sterilization indicators.   4

    Or

   (b) (i) Define disinfection and discuss the following factors that influence disinfection process.   10

    (A) Concentration of disinfectant

    (B) Time of exposure

    (C) Temperature.

    (ii) Write about evaluation of disinfectants by Rideal Walker coefficient test. 4

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2   **6510**

4. (a) (i) Discuss about different antigen-antibody reactions and their applications. 10

    (ii) Write a note on `phagocytosis'.   4

                                     Or

    (b) (i) Define immunity and describe various types of immunity with suitable
        examples.   10

    (ii) Write a note on 'Hypersensitivity'.   4

5. (a) (i) Write about source, mode of transmission, diagnosis and treatment of the
        following:

        (A) Diphtheria   (B) Filariasis   8

    (ii) Write about detection of coliform bacteria in water sample.   6

                                     Or

    (b) (i) Write about source, mode of transmission, diagnosis and treatment of the
        following:

        (A) Influenza   (B) Poliomyelitis   8

    (ii) Describe the systematic study of streptomyces species.   6

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Code No.: **6507**

FACULTY OF PHARMACY

B.Pharmacy II Year I Semester (Main) Examination, December 2011

PHARMACEUTICAL ORGANIC CHEMISTRY-I

Time : 3 Hours]   [Max. Marks : 70

*Answer **all** questions.*
All questions carry equal marks.

1. (a) (i) Write about the hybrid orbitals.   4

    (ii) Give a note on activation energy.   5

    (iii) Discuss the effect of inter molecular forces.   5

<div align="center">Or</div>

  (b) (i) Explain the energy diagrams of reactants and products.   9

    (ii) Explain :

      (i) Inductive effect   (ii) Resonances (iii) Isomerism with examples.

2. (a) (i) Write the mechanism of free radical reactions.   7

    (ii) Write the synthesis of the following compounds.

      (A) n-Hexane   (B) Propene   (C) Acetylene   6

<div align="center">Or</div>

  (b) Write the reaction and mechanisms for following reactions :   4x3.5=14

    (i) Halogenation of alkanes   (ii) Catalytic cracking

    (iii) Anti-Markovnikov's addition (iv) Allylic substitution

3. (a) (i) Explain in detail of SN^1 reaction.   7

    (ii) Write a note on Williamson's synthesis and Ziesel's method.   7

<div align="center">Or</div>

  (b) (i) Write any three methods to prepare alcohols.   5

    (ii) Give the reasons for following statements.   3x3=9

      (A) Allyl chloride is more reactive than vinyl chloride.

      (B) Alcohols have higher boiling points than alkanes.

      (C) Lower alcohols are soluble in water.

<div align="right">[P.T.O.</div>

2   **6507**

4. (a) (i) How will you distinguish between acetaldehyde and acetone (with chemical reactions)   6

 (ii) Write a note on effect of electron with-drawing groups on acidity of carboxylic acids.   8

Or

(b) Write the reaction and mechanism for following: 4x3.5=14

   (i)   Aldol condensation

   (ii) Cannizzaro reaction

   (iii) Reformatsky reaction

   (iv) Wittig reaction

5. (a) (i) How do you differentiate between primary, secondary and tertiary amines with chemical reactions.   8

 (ii) Write a note on basicity of amines.   6

Or

(b) (p/ Write any four methods for synthesis of nitro alkanes.   6

   (ii) Give the synthesis and applications of aryl diazonium salts.   8

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Code No.: **4410**

FACULTY : ACY

B.Pharmacy II Year I Semester (Supplementary) EXamination, April/May 2011
PHARMACEUTICAL

Time : 3 Hours]   [Max. Marks : 70

*Answer **all** questions.*
All questions carry equal marks.

1. (a) (i) Write a note on bacterial taxonomy.

     (ii) Classify viruses. Explain the methods of viral replication.   9

                              Or

   (b) (i) Classify Bacteria based on their nutritional requirements.   7

       (ii) Explain in detail about the cultivation of anaerobic bacteria.

2.. (a) (i) Describe the structure of bacteria with necessary diagrams.   6

      (ii) Explain the identification of bacteria by staining.

                              Or

   (b) (i) Define mutation and variation with examples. Write a detailed note on
           different types of mutation.   7

       (ii) Explain the various methods of gene transfer in bacteria.   7

3. (a) (i) Write about the factors influencing disinfectants.   7

        (ii) Write the mode of action for various groups of disinfectants.   7

                              Or

    (b) (i) Classify sterilization. Explain mechanical sterilization and its types. 6

        (ii) What are sterilization indicators? Explain the types of sterilization indicators.
                                                                                8

4. (a) (i) What is immune response . Explain primary and secondary immune
            response.   6

        (ii) Write the different antigen - antibody reactions. Explain the applications of
             antigen - antibody reactions.   8

                              Or

                                                                          [P.T.O.

2   **4410**

(b) (i) Define hypersensitivity. Detail the types of hypersensitivity reactions.   8

(ii) Compare and contrast between endotoxins and exotoxins.   6

5. (a) (i) Write about the general modes of transmission of diseases. Write the causative organism, mode of transmission, and symptoms of the following diseases.   7

(A) Tuberculosis   (B) Poliomyelitis

(ii) Write a detailed account on the pharmaceutical importance of Penicillium and Streptomyces species.   7

Or

(b) (i) Explain the steps involved in the waste water (sewage) treatment. Write the microbial tests for potable water.   7

(ii) Write the methods of pasteurization if milk. Write the qualitative tests and grading of milk.

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Code No.: **4411**

FACULTY OF PHARMACY

B Pharmacy **H Year I Semester (Suppleme4ary) Exam , tion, April/May 2011**

COMMUNICAT

Time : 3 Hours]   [Max. Marks : 70

Answer **all** *questions.*
All questions cam) equal marks.

Part A _ (Marks : 4 x 5 = 20)

1.   (a) What are the patterns in verbal and non-verbal 'communication?

Or

(b) Explain the problems you face in communicating your ideas in English?

2.   (a) Language and personality go together. Discuss?

Or

(b) Explain Master Tips for attending interviews and use of the Body language for Interviews?

3 (a) Explain the importance of listening skills?

Or

(b) Ways to improve vocabulary?

4.   (a) What are the uses of a dictionary?

Or

(b) What is the group communication? And illustrate with the programmes of Seminars, Conferences etc.

Part B _ (Marks : 4 x 5 = 20)

Rewrite the correct answers of the following:

(I) Osmania is an university.

(2) He is our cheap guest.

(3) Man is superior than animals.

(4) Birds cannot fly high.

(5) He is superior than me.

[P.T.O.

2. Give the antonyms for the following:

    (1) Impossible

    (2) Advancq

    (3) Unfair

    (4) Civilized

    (5) Appear.

3. Explain the following one word **substitutes in** one or two sentences.

    (1) anaesthetics

    (2) grocer

    (3) Order

    (4) Endow

    (5) Charitable.

4. Rewrite the following sentences as directed.

    (1) _____glass is broken (A, An and The)
        (Use appropriate article)

    (2) He said, "I any ill".
        (Change into indirect speech)

    (3) By the time I reached the station, the train _____ (leave)
        (Use the correct form of verb)

    (4) Sita loves Savitri
        (Change into passive voice)

    (5) Rama Rao is involved of difficulties
        (Use appropriate preposition)

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Part C - (Marks : 5 x

1. (a) How important are order and safety? Explain with examples in Our Own Civilization?

                              Or

    (b) What are the defects of Our Own Civilization?

2. (a) What did Andrew Carnegie learn from his parents?

                              Or

    (b) How do you analyse Andrew Carnegie's personality?

3. (a) What was the teaching. of. Swami Vivekananda regarding 'work'?

                              Or

    (b) How can one not be touched by sin in The Secrete Of Work?

4. (a) What are the aspects of the rebelliousness of adolescence in Benjamin Spock's The Generation Gap'.?

                              Or

    (b) Why does the 'School failure' occur in The Generation Gap'?

5. (a) Write a letter to your friend describing your college natural beauty and academic atmosphere.

                              Or

    (b) How do you conduct a meeting? Write down a model agenda and minutes.

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Code No.: **4408**

FACULTY 0

B.Pharmacy II Year I Semester (Suppleme   nation, April/May 2011

PHARMACEUTICAL ENGINEERING-I

Time : 3 Hours]   [Max. Marks : 70

Answer **all** *questions.*
All questions carry equal marks.

1. (a) (i) Discuss in detail the factors affecting the material selection for pharmaceutical industries?   (10)

    (ii) Write a note on unit operations?   (4)

                              Or

    (b) (i) Discuss in detail about factors influencing corrosion?   (10)

    (ii) Write a note on dimensionless equations?   (4)

2. (a) (i) Enumerate the differences between orifice meter and venturimeter? **(4)**

    (ii) Explain the principle, construction and working of multipass heat exchanger?   (10)

                              Or

    (b) (i) Define Fouriers law? Derive an equation for compound resistance in series?   (6)

    (ii) Derive an equation for inclined manometer?   (4)

    (iii) Write a note on fin tubes?   (4)

3. (a) (i) Discuss the principle, construction and working of any one reciprocating pump with neat diagram?   (10)

    (ii) Write the principle and working of screw conveyor?   (4)

                              Or

    (b) (i) Suggest a conveyor which can be used for hazardous chemicals? Write the principle, construction, working, advantages and disadvantages of that conveyor?   (10)

    (ii) Write a note on blowers?   (4)

4. (a) (1) Discuss the principle, construction and working of Air conditioner? **(10)**

    (ii) Write the applications of Refrigeration in Pharmacy?   (4)

                              Or

                                                                        [P.T.O.

(b) (i) Write a note on adiabatic saturation temperature and wet bulb temperature? (7)

(ii) Write a short note on humidity chart? (7)

5. (a) (i) Suggest a filtration equipment for separation of 5-10 % solids? Write the principle, construction, working and advantages of that equipment? (10)

(ii) Write a note on perforated basket centrifuge? (4)

Or

(b) Write short notes on :

(i) Kozeny equation (4)

(ii) Mechanisms of filtration (4)

(iii) Vertical solid bowl centrifuge (6)

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Code No   **4409**

FAC   t OF fIllARMA

B.Pharmacy II Year I Semester (Supplementary   mination, April/May 2011

PHARMAC   IS - I

(Chernic   is)

Time : 3 Hours)   [Max. Marks : 70

Answer **all** *questions.*
All questions carry equal marks.

1. (a) (i) Briefly explain systemic errors? How to reduce it?   (6)

(ii) How do you calibrate the apparatus useful in volumetric analysis.   (8)

Or

(b) (i) Define & Explain :

(a) Linerity   (b) Significant figures   (4)

(ii) Explain the concept of error, precision & accuracy in pharmaceutical analysis with examples.   (10)

2. (a) (i) Calculate the pH of A 0.01m solution of ethanolic acid in which the degree of dissociation is 12.5%.   (4)

(ii) Write a note on the following :

(A) Law of mass. action   (B) Salt Hydrolysis   (6)

(iii) Solubility of AgCl is 0.0015 gldm^3. Calculate the solubility product.   (4)

Or

(b) (i) Define a Buffer. Give two examples for buffers. How does a buffer resist change in pH.   (6)

(ii) What is Solubility product? What is its significance & uses?   (4)

(iii) Write briefly how 0.1N H_2SO_4 is prepared & standardised.   (4)

3. (a) (i) Explain the principles of gravimetric analysis with examples. Add a note on application of gravimetric analysis.   (5)

(ii) What are the various methods employed to minimize co-precipitation. (5)

(iii) How do you prepare & standardise 0.1N sodium thio sulphate?   (4)

Or

[P.T.O.