Code No: G-13118/PCI

FACULTY OF PHARMACY

B. Pharmacy (PCI) VIII - Semester (Main & Backlog) Examination, July 2025

Subject: Cosmetic Science (Elective-II)

Time: 3 Hours **Max.Marks:75**

Women's College of Pharmacy LIBRARY ACC No: Dt: RBVRR * HYD-27 *

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Define Cosmetic and Cosmeceuticals.
2. Write a note on cosmetics as Quasi and OTC drugs.
3. Write a note on Hair dyes.
4. Write a note on mouth washes.
5. Write the uses of henna in hair care.
6. Write a note on hair tensile strength.
7. Differentiate between soaps and syndet bars.
8. Write a note on hair combing properties.
9. Write a note on Blemishes and Wrinkles.
10. Write the reasons for bad body odour.

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Draw basic structure of skin and its functions. Write the formulation of Moisturizing cream Cold Cream and Vanishing cream.
12. Write the role of following herbs in cosmetics (i) Aloe (ii) Turmeric (iii) Neem and (iv) Clove.
13. (a) Write a note on oily and dry skin. Write causes and preventions for dry skin.
    (b) Write formulation and mechanism of action of Antiperspirants & deodorants.

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Write the classification of cosmetics and cosmeceuticals with examples.
15. Write a note on evolution of cosmeceuticals from cosmetics.
16. Write a note on basic structure of hair and hair growth cycle.
17. Write a note on conditioning shampoo, antidandruff shampoo in hair care.
18. Write the formulation of toothpaste for bleeding gums and sensitive teeth for oral care.
19. What is SPF? Classify the sunscreen formulations with examples.
20. Write a note on evaluation of Shampoo and Skin cream as per BIS specifications.
21. Write the principles and applications of Sebumeter and Corneometer.
22. Write a note on dandruff and causes for hair fall.

****

RGUHS Women's College of Pharmacy LIBRARY ACC No: DC: HYD-27

Code No: G-13069/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Makeup) Examination, November 2024

Subject: Cosmetic Science (Elective-II)

Max.Marks:75

Time: 3 Hours

PART - A

(10 x 2 = 20 Marks)

Note: Answer all the questions.

1. Write a note on cosmetics as Quasi and OTC drugs.
2. Write a note on hair growth cycle.
3. Write a note on preservatives used in cosmetics.
4. Write a note on hair oils in hair care cosmetics.
5. Write a note on turmeric in skin care.
6. Write a note on mouthwashes.
7. Write the role of clove in oral care.
8. Write a note determination of skin colour.
9. What are the reasons for dry skin and how to prevent it?
10. Write a note on reasons and prevention of hair fall.

PART - B

(2 x 10 = 20 Marks)

Note: Answer any two questions.

11. Write a note on following excipients with examples.
    (i) Surfactants (ii) Humectants (iii) Rheology modifiers (iv) Emollients
12. Write a note on Sebumeter, Corneometer, Tewameter (TEWL) in cosmetic evaluation.
13. Write the causes and prevention of Blemishes, Wrinkles, Acne, Prickly heat and Body Odour.

PART - C

(7 x 5 = 35 Marks)

Note: Answer any seven questions.

14. Classify cosmetics and cosmeceuticals with examples.
15. Write a note on basic structure of skin and formulation of Moisturizing cream.
16. Write the principle involved in formulation of cold cream and vanishing cream.
17. Write the formulation of toothpaste for bleeding gums and sensitive teeth.
18. What is SPF? Classify the sunscreen formulations with examples.
19. Write a note on conditioning shampoo, antidandruff shampoo in hair care.
20. Write a note on Henna and Amla in hair care. Write about soaps and syndet bars.
21. Write formulation and mechanism of action of Antiperspirants & deodorants.
22. Write about soaps and syndet bars.

****

OU - 1701

Code No: F-7275/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Main & Backlog) Examination, July 2024

Subject: Cosmetic Science (Elective-II)

Time: 3 Hours **Max. Marks: 75**

PART-A

Note: Answer all questions. **(10 x 2 = 20 Marks)**

1. Define Cosmetic and Cosmeceuticals.
2. What are the preservatives used in cosmetic products?
3. Write a note on face wash.
4. Write a note on mouth washes.
5. What are the uses of clove in oral care?
6. Write a note on Tewameter (TEWL).
7. Differentiate between soaps and syndet bars.
8. Write a note on hair combing properties.
9. Write a note on comedogenic and dermatitis.
10. What is the reasons for bad body odour.

PART-B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Draw basic structure of skin and write functions of skin. Explain formulation of Moisturizing cream and Cold Cream as skin care products.
12. Write the role of herbs in cosmetics. Write the role of aloe, turmeric and neem in cosmetic formulation.
13. Write about blemishes, wrinkles, acne and prickly heat in skin problems.

PART-C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Write the classification of cosmetics and cosmeceuticals with examples.
15. Write the classification and applications of i) Surfactants ii) Rheology modifiers
16. Write formulation and mechanism of action of Antiperspirants & deodorants.
17. Write the formulation of toothpaste for bleeding gums and sensitive teeth.
18. Classify sunscreen formulations and explain SPF.
19. Write a note on evaluation of Shampoo and skin cream as per BSI.
20. Write the principles and applications of Sebumeter and Corneometer
21. Write a note on oily and dry skin. Write causes for dry skin.
22. Write the hair fall causes and dandruff.

*****

OU - 1706

LIBRARY Acc.No:..... Dt.....

Code No: E-12336/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII- Semester (PCI) (Main & Backlog) Examination, August 2023
Subject: Cosmetic Science (Elective-II)

Time: 3 Hours **Max.Marks:75**

PART-A

Note: Answer all the questions **(10 x 2 = 20 Marks)**

1. Define Cosmetic and Cosmeceuticals.
2. Write a note on Quasi and OTC drugs.
3. Write a note on hair oils.
4. Write the uses of mouth washes.
5. Explain hair growth cycle.
6. Write a note on hair tensile strength study
7. Write a note on hair combing properties.
8. Differentiate between soaps and syndet bars.
9. Write a note on reasons and prevention of dry skin.
10. What is dermatitis?

PART-B

Note: Answer any two questions **(2 x 10 = 20 Marks)**

11. Write basic structure and function of skin. Explain formulation of Moisturizing cream, Cold Cream and Vanishing cream as skin care products.
12. Write the role of herbs in cosmetics. Write a brief note on the following herbs **i)** Aloe & Turmeric in skin care **ii)** Neem & Clove in oral care
13. Write the principles and applications of **a)** Sebumeter and Corneometer b) Tewameter (TEWL) and **c)** Hair tensile strength study

PART-C

Note: Answer any seven questions **(7 x 5 = 35 Marks)**

14. Write briefly on evolution of cosmeceuticals from cosmetics.
15. Write a note on **i)** Surfactants **ii)** Rheology modifiers **iii)** Humectants
16. Write the common problems associated with teeth and gums. Explain formulation of toothpaste for bleeding gums and sensitive teeth as oral care products.
17. Classify sunscreens and explain SPF.
18. Write a note on BIS specifications and Analytical methods for evaluation of Shampoo and Tooth paste
19. Explain the role of Henna and Amla in hair care.
20. Write the cosmetic problems associated with hair and scalp.
21. Write about blemishes, wrinkles and acne in problems associated with skin.
22. Write formulation and mechanism of action of Antiperspirants & deodorants.

******

OU - 1706

RBVRR Women's College of Pharmacy LIBRARY Acc.No:..... DL.....

Code No.E-12070/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII-Semester (PCI) (Makeup) Examination, November 2022

Subject: Cosmetic Science (Elective – II)

Time: 3 Hours **Max. Marks: 75**

PART – A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. What is the difference in conditioning & non-conditioning hair shampoo.
2. Write a note on rheology modifiers.
3. Write a note on face wash.
4. Write a note on role of toothpaste in oral care.
5. Write a note on uses of turmeric in skin care.
6. What is the role of BIS in cosmetics evaluation?
7. Write a note on properties of hair combing.
8. What are meant by soaps and syndet bars.
9. Write a note on hair fall causes and prevention.
10. How can we prevent body odor?

PART – B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Describe basic structure and functions of skin. Explain formulation of Cold Cream and Vanishing cream.
12. Write a note on role of herbs in cosmetic formulations
    (a) Aloe (b) Henna (c) Neem
13. Write the principles and applications of the following
    (a) Sebumeter and Corneometer (b) Tewameter (TEWL).

PART – C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Write the classification of cosmetics and cosmeceuticals with examples.
15. List out excipients used in formulation of cosmetics. Write about usage of surfactants in cosmetics with examples.
16. Explain formulation of toothpaste for bleeding gums and sensitive teeth as oral care products.
17. Write formulation and mechanism of action of antiperspirants & deodorants.
18. Explain the role of herbs in sun protection formulations.
19. Write BIS specification and analytical methods for shampoo.
20. Write evaluation of hair tensile strength.
21. Write about skin problems like blemishes, wrinkles and acne.
22. Write the causes leading to dry skin and its prevention.

* * *

OU - 1706

Code No.D-8113/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII-Semester (PCI) (Main & Backlog) Examination, July 2022

Subject: Cosmetic Science (Elective – II)

Time: 3 Hours Max. Marks: 75

LIBRARY Acc.No:..... Dt.....

PART – A

Note: Answer all the questions. (10 x 2 = 20 Marks)

1. Write the classification of cosmetic.
2. What are meant by cosmetics as Quasi and OTC drugs?
3. Write a note on preservatives used in cosmetic formulations.
4. Write a note on mouth washes.
5. Write a note on role of clove in oral care.
6. Write the uses of clove.
7. Write a note on skin color measurement.
8. Write the uses of syndet bars.
9. Write about causes and prevention of acne.
10. Write a note on hair combing properties.

PART – B

Note: Answer any two questions. (2 x 10 = 20 Marks)

11. Enlist the excipients used in cosmetics formulations. Describe the following excipients with examples (a) Surfactants (b) Emollients and (c) Rheology modifiers.
12. (a) Write the role of Henna and Amla in hair care.
    (b) Write the principles and applications of Sebumeter and Cornemeter.
13. Write the causes and prevention of following problems
    (a) Dry skin (b) Dandruff (c) Hair fall (d) Body odor.

PART – C

Note: Answer any seven questions. (7 x 5 = 35 Marks)

14. Write a note on evolution of cosmeceuticals from cosmetics.
15. Write a note on hair growth cycle.
16. Write formulation and mechanism of action of Antiperspirants & deodrants.
17. Write about toothpaste for bleeding gums and sensitive teeth.
18. Write about sun protection formulations.
19. Write role of Aloe and Turmeric in skin care.
20. Write BIs specifications analytical methods for skin creams.
21. Write a note on measurement of TEWL by Tewameter.
22. Write about causes and prevention of dry skin.

* * *

Code No: 12268/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Main) Examination, July 2021

Subject : Cosmetic Science (Elective-II)

Sri Venkateswara College of Pharmacy LIBRARY Acc.No: DL

Time: 2 Hours **Max. marks: 75**

Note: Answer Seven questions from Part –A, any One question from Part- B and any Five questions from Part- C

Part A (7x3=21 marks)

1. Define and classify cosmetics
2. Write applications of humectants
3. What is Ceramide?
4. What is facewash? Enlist the ingredients used in face wash
5. Define SPF (Sun protection factor)
6. Write role of turmeric in skin care
7. What is the role of Neem & Clove in oral care products
8. Explain hair combing properties
9. Give the symptoms and treatment of dry skin
10. What is prickly heat?

Part B (1x14=14 marks)

11. Explain basic structure of skin with neat labelled diagram. Write in detail functions of skin
12. Discuss the formulation building blocks of i) Hair care product ii) Oral care Product
13. Write a note on : a) Sebumeter b) Melanine pigmentation

Part C (5x8=40 marks)

14. Explain hair growth cycle
15. Write in detail about evolution of cosmeceuticals from cosmetics
16. Discuss various advantages and disadvantages of cold cream
17. Define and classify surfactants with example. Write applications of surfactant
18. Give BIS (Bureau of Indian Standards) specification for tooth paste
19. Explain analytical methods for skin cream
20. Write a note on Syndet bars
21. Explain mechanism of action of antiperspirants and deodorants
22. Explain various elements of healthy scalp

****

RBVRR Women's College of Pharmacy LIBRARY ACC No.

Code No: G-13111/PCI

FACULTY OF PHARMACY

B. Pharmacy (PCI) VIII - Semester (Main & Backlog) Examination, July 2025

Subject: Social & Preventive Pharmacy

Time: 3 Hours **Max Marks: 75**

PART – A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Write a note on personal hygiene and avoidable habits?
2. What are the effects of poverty on health?
3. What is the difference between drug abuse and drug addiction?
4. Mention vitamin deficiency disorder/disease.
5. What is balanced diet?
6. What is Malnutrition?
7. What is pulse polio program?
8. Give the importance of maternal and child intervention program?
9. Write a note on school health education program?
10. What do you mean by primary health care center?

PART – B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. (a) Explain about Malnutrition and various methods of its prevention.
    (b) Explain in detail about control and prevention of Malaria.

12. (a) Explain the objectives, functioning and outcomes of national health programme for tuberculosis.
    (b) Write a note on National programme for health care of elderly.

13. (a) Add a note on control and prevention of cancer.
    (b) Write a note on functions of PHC.

PART – C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Explain in detail about universal immunization programme.
15. Explain signs, symptoms, transmission and treatment of dengue.
16. Define health and add a note on evaluation of public health.
17. Write a note on control and prevention of lymphatic filariasis.
18. Write a note on strategies and outcomes of National programme for control of blindness.
19. Write a note on National family welfare programme.
20. What are the functions of WHO in Indian national programs?
21. Write a brief note on improvement in rural sanitation.
22. Explain in detail about the objectives, functioning and outcomes of Pulse polio program.

****

OU - 1706 OU - 1706

Women's College of Pharmacy LIBRARY ACC No: Dt: RBVRR * HYD-27 *

Code No: G-13062/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Make-up) Examination, November 2024
Subject: Social and Preventive Pharmacy

Time: 3 Hours **Max.Marks:75**

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Write a note on concept of public health?
2. What is Balanced diet?
3. What is drug addiction? Give few examples.
4. Write a note on prevention and control of hypertension?
5. What are the functions of PHC?
6. Write the objectives of pulse polio programme?
7. What are the strategies of national tobacco control programme?
8. Write a note on Impact of urbanization on health and disease?
9. Explain different types of diabetes mellitus?
10. Write a note on improvement in rural sanitation?

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. (a) Explain various socio-cultural factors related to health and disease.
    (b) Write a note on personal hygiene and healthcare.

12. (a) Write about the transmission, signs &symptoms, and treatment of Pneumonia.
    (b) Write a note on Universal immunization programme.

13. (a) Write a note on Social health programme.
    (b) Explain about the health promotion schemes in school.

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Write a note on Vitamin deficiencies.
15. Explain malnutrition and its prevention.
16. Write a note on prevention and control of Drug addiction.
17. Describe the various roles of WHO in Indian national programs.
18. Write a note on Integrated Disease Surveillance Project (IDSP).
19. Write a note on National Family welfare programme.
20. Write a note on general principles of prevention and control of Dengue.
21. Write a note on objectives, functions and outcomes of TB control programme.
22. Write the risk factors, diagnosis and treatment of Cancer.

****

OU - 1701

LIBRARY

Code No: F-7268/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Main & Backlog) Examination, July 2024

Subject: Social & Preventive Pharmacy

Time: 3 Hours **Max.Marks:75**

PART-A

Note: Answer all the questions **(10 x 2 = 20 Marks)**

1. Mention the social causes of disease.
2. Define health and hygiene.
3. Write a short note on types of respiratory tract infections.
4. What is the mode of transmission of the Ebola virus?
5. Write the functions of the pulse polio program.
6. What are the objectives and national program for the prevention and control of deafness?
7. Write about the social health program.
8. Write functions of WHO.
9. Write down the objectives of improvement in rural sanitation.
10. What is the importance of health education?

PART-B

Note: Answer any two questions **(2 x 10 = 20 Marks)**

11. (a) Define malnutrition and write about its types and prevention.
    (b) What are different avoidable habits from the health and hygiene point of view?

12. (a) What is SARS. Write its symptoms, prevention, and control.
    (b) Elaborate community services with health promotion activities in school.

13. (a) Write in detail about the Integrated disease surveillance program.
    (b) Explain the national tobacco control program.

PART-C

Note: Answer any seven questions **(7 x 5 = 35 Marks)**

14. Explain the concept of prevention and control of the disease.
15. Explain the prevention and control of diabetes mellitus.
16. Write the mode of transmission, prevention, and control of cholera.
17. Explain national mental health program objectives, functioning, and outcomes.
18. Explain the objectives, functioning and outcomes of the national program for the control of blindness.
19. Explain the national malaria prevention program.
20. Explain in detail the national family welfare program.
21. Write a note on the objectives, functions and staffing pattern of PHC.
22. Define community health. Classify and explain the principles of community health services.

******

OU - 1706 OU - 1706

Women's College of Pharmacy LIBRARY ACC No: DC: RBVRR HYD-27

Code No: F-7196/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Backlog) Examination, March 2024

Subject: Social and Preventive Pharmacy

Time: 3 Hours **Max.Marks:75**

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Write a note on symptoms of vitamin deficiencies?
2. Define balanced diet.
3. What is the difference between drug abuse and drug addiction?
4. Explain the social causes of the disease?
5. Explain different types of diabetes mellitus?
6. Write the various objectives of HIV and AIDS control programme?
7. Write a note on Malaria control strategies?
8. What are the objectives of integration with National urban Health Mission (NUHM)?
9. Write a note on school health promotion program?
10. Write a note on the public health care system in India?

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. (a) Explain about Malnutrition and various methods of its prevention.
    (b) Explain general principles of prevention and control of Malaria.
12. (a) Explain the objectives, functioning and outcomes of national mental health programme.
    (b) Write a note on role of WHO in Indian National programmes.
13. (a) Discuss in detail about National family welfare programme.
    (b) Write a note on functions of PHC.

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Write the various risk factors and diagnosis of Cancer.
15. Explain signs, symptoms, transmission and treatment of SARS.
16. Define health and explain different dimensions of good health.
17. Write a note on objectives and strategies for Leprosy elimination in India.
18. Write a note on pulse polio program.
19. Write a note on national programme for health care of elderly.
20. What are the aims and achievements of National Tobacco Program?
21. Explain about the different levels of Evaluation of public health.
22. How can you improve sanitization in rural area, explain different schemes and programs.

****

Code no: E-12330/PCI

FACULTY OF PHARMACY

B.Pharmacy VIII- Semester (PCI) (Main & Backlog) Examination, July-2023

Subject: Social & Preventive Pharmacy

Time: 3 Hours **Max.Marks:75**

PART-A

(10 x 2= 20 Marks)

Note: Answer all the questions

1. Define a balanced diet. What are micronutrients?
2. Mention any four factors which have an impact on urban health.
3. Define cholera and Write its symptoms.
4. Define drug dependence and drug addiction.
5. What is NACO and mention any two programs of NACO.
6. Write the objectives of the national program for the control of blindness.
7. Mention various mother and child health services
8. Write the objectives of the family welfare program.
9. What are the functions of a primary health center?
10. Write about health promotion

PART-B

(2 x 10= 20 Marks)

Note: Answer any two questions

11. (a) Explain the evaluation of public health in detail.
    (b) Enumerate different socio-cultural factors related to health and disease.

12. (a) Write the mode of transmission, prevention, and control of malaria.
    (b) Write a note on improvement in rural sanitation

13. (a) Explain national leprosy control program objectives, functioning, and outcomes.
    (b) Write about the WHO's role in the Indian national health program.

PART-C

(7 x 5= 35 Marks)

Note: Answer any seven questions

14. Write about types of vitamins and their deficiencies.
15. Explain the prevention and control of HTN.
16. What is influenza? Write its symptoms, prevention, and control.
17. Explain the objectives, functioning, and outcome of the HIV & AIDS control program.
18. Explain the universal immunization program.
19. Explain the national health intervention program for mother and child.
20. Write a note on the national program for the health care of the elderly.
21. Explain the objectives and strategies of the national urban health mission.
22. Explain the methods and principles of health education.

******

Library

Code No. E12063/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII Semester (PCI) (Makeup) (Backlog) Examination, November-2022

KBR Women's College LIBRARY Acc No:..... DL.....

Subject: Social and Preventive Pharmacy

Time: 3 Hours **Max. Marks: 75**

PART - A

Note: Answer all questions. **(10 x 2 = 20 Marks)**

1. Write a note on symptoms of Nutritional deficiencies.
2. Write a note on Impact of urbanization on health and disease.
3. Explain different types of diabetes mellitus.
4. Write a note on remedies or solutions to drug abuse.
5. What are the objectives of National Mental Health Program?
6. Write the objectives of National AIDS control program.
7. What are the strategies of National Program for health care of elderly?
8. Write a note on Swachh Bharath Mission.
9. Write a note on Nirmal Gram Puraskar.
10. Define community service and explain about community health.

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. (a) Explain various evaluation methods of public health system.
    (b) Write a note on social problems of the sick.

12. (a) Write about the transmission, signs & symptoms, treatment of chickunguinea.
    (b) Write a note on National Program for Prevention and control of Deafness.

13. (a) Write a note on National health intervention Program for Mother and Child.
    (b) Explain the role of WHO in Indian National Programs.

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Write a note on objectives and functions of primary health centers (PHC).
15. Explain the strategies given by National Urban Health Mission (NUHM).
16. Write a note on National Tobacco Control programme.
17. Describe the various roles of Government in new Health initiatives and programs in India.
18. Write a note on Integrated Disease surveillance Project (IDSP).
19. Write a note on National Program for Control of Blindness.
20. Write a note on National immunization schedule recommended by IAP.
21. Write a note signs and symptoms, Prevention and control of Cholera.
22. Write the risk factors, diagnosis and treatment of Hypertension.

****

LIBRARY Acc.No:

Code No. D-8106/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII-Semester (PCI) (Main & Backlog) Examination, July 2022

Subject: Social & Preventive Pharmacy

Time: 3 Hours **Max. Marks: 75**

PART – A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Write a note on nutritional deficiencies?
2. Explain different types of diabetes mellitus?
3. What is the difference between drug abuse and drug addiction?
4. Explain the social causes of the diseases?
5. Give the preventive measures for the control of malaria and dengue?
6. Write the objectives of AIDS control programme?
7. Write a note on role of WHO in Indian National programmes?
8. What are the objectives of national family welfare programme?
9. Write a note on school health program?
10. Write a note on functions of PHC?

PART – B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. (a) Explain about Malnutrition and its prevention.
    (b) Explain prevention and control of acute respiratory infections.
12. (a) Explain in detail functioning and outcomes of National mental health program.
    (b) Write about national health intervention programme for mother and child.
13. (a) Discuss the community services available in rural and urban regions.
    (b) Write a note on treatment of TB.

PART – C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Write the socio-cultural factors related to health and disease.
15. Explain signs, symptoms, transmission and treatment of SARS.
16. Write about Universal Immunization programme.
17. Write a note on objectives and strategies of National Leprosy control programme.
18. Write a note on National programme for control of deafness.
19. Write a note on Family welfare program.
20. What are the aims and achievements of National Tobacco Program.
21. Explain about the general prevention, control and treatment of lymphatic filariasis.
22. Write about Health promotion and education in schools.

* * *

OU - 1706

Code No: 122617PCI

LIBRARY
Acc.No:.....
Dt.....
Hyd-27.

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Main) Examination, July 2021

Subject: Social and Preventive Pharmacy

Time: 2 Hours **Max. Marks: 75**

Note: Answer Seven questions from Part -A, any One questions from Part- B and any Five questions from Part- C

Part A (7x3=21 marks)

1. Write about nutritional deficiencies.
2. Define public health.
3. Write about personal hygiene and health care.
4. Write about drug addiction-drug substance abuse.
5. Write a short note on national programme for prevention and control of deafness Objectives and outcome.
6. Write about health promotion.
7. Write about social health programme.
8. Write a note on improvement in rural sanitation.
9. Write a note on integrated disease surveillance program.
10. Write a note on national urban health mission.

Part B (1x14=14 marks)

11. a) Explain about malnutrition and its prevention.
    b) Explain about balanced diet.
12. Explain general principles of prevention and control of cholera, dengue, pneumonia, hypertension and diabetes mellitus.
13. a) Explain national health program, its objectives, functioning and outcome of HIV&AIDS control programme.
    b) Explain about national leprosy control programme.

Part C (5x8=40 marks)

14. Explain universal immunization programme and pulse polio programme.
15. Explain national health intervention programme for mother and child.
16. Explain national tobacco control programme.
17. Explain national malaria prevention program.
18. Write a note on functions of PHC and improvement in rural sanitation.
19. Explain general principles of prevention and control of ebola virus and dengue.
20. Explain national mental health program objectives, functioning and outcomes.
21. Explain national programme for control of blindness objectives, functioning and outcomes.
22. Explain the concept of prevention and control of disease and social causes of diseases

****

OU - 1706

R.B.V.R. Women's College of Pharmacy LIBRARY Acc No. Dt.

Code No: G-13114/PCI

FACULTY OF PHARMACY

B. Pharmacy (PCI) VIII - Semester (Main & Backlog) Examination, July 2025

Subject: Pharmacovigilance (Elective - I)

Time: 3 Hours **Max. Marks: 75**

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Briefly explain pharmacovigilance program of India (PvPI).
2. Give the Types of services provided by CROs.
3. What are the objectives of pharmacovigilance planning?
4. Write about vaccination failure.
5. Define the terms a. cohort study b. cross sectional study.
6. List out factors affecting adverse effects of the vaccine.
7. Discuss the Genomic approaches to serious adverse drug reactions.
8. Mention few examples of predictable ADRs.
9. Define the terms (i) Secondary effects (ii) Abstinence syndrome (iii) Rechallenge.
10. Classify adverse events following immunization.

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Explain the Methods for Causality, Severity and Seriousness Assessment of ADRs.
12. Discuss on differences in Indian and global pharmacovigilance requirements.
13. Explain DSUR and PSUR. Discuss in detail the structure of PSUR.

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Discuss the Rawlin's and Thompson classification of ADRs with suitable examples.
15. Discuss the functions of Contract Research Organization
16. Write a note on vaccination failure.
17. Explain the Drug Safety Crisis management.
18. Write about post approval phase.
19. Write a note on MedDRA
20. What are the prerequisite for setting up pharmacovigilance center in a hospital?
21. Enlist the different volumes of ICD 10, outlining its contents. Write in brief the use of alphabetical index.
22. Discuss drug safety evaluation in elderly population.

******

OU - 1706 OU - 1706

RGUHR Women's College of Pharmacy
LIBRARY
ACC No:
Dt:
HYD-27

Code No: G-13065/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Make-up) Examination, November 2024
Subject: Pharmacovigilance (Elective - I)

Time: 3 Hours **Max. Marks: 75**

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Define the adverse drug reaction.
2. What are CIOMS working groups?
3. What is phase IV of clinical trials?
4. Write a short note on Harmonization.
5. Discuss the PSUR.
6. What is eudravigilance.
7. Explain ICH Steering Committee.
8. What is teratogenicity? Give examples.
9. Illustrate the importance of Pharmacogenomics.
10. Describe common technical document.

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Differentiate between adverse drug reactions and adverse events with suitable examples. Explain the mechanisms of Type-A and Type-B ADRs.

12. (a) Write a note on MedDRA.
    (b) Write a note on Pharmacovigilance program of India (PvPI).

13. Explain the criteria for Drug safety evaluation in Pediatric population.

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Describe in details CDSCO in India.
15. Explain the Schedule Y of Drugs and Cosmetics Act in brief.
16. Write about CROs in pharmacovigilance.
17. Discuss Naranjo's and WHO causality scales.
18. Write a note on post approval expedited reporting.
19. What is CIOMS? Enlist various CIOMS working groups and give their functions.
20. Discuss in brief the objectives of ICH guidelines.
21. Explore the Pre- marketing and Post marketing clinical trials.
22. Explain about eudravigilance medicinal product dictionary.

******

OU - 1701

Code No: F-7271/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Main & Backlog) Examination, July 2024
Subject: Pharmacovigilance (Elective - I)

Time: 3 Hours **Max. Marks: 75**

PART-A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. What is a Good Pharmacovigilance Practice?
2. What is the significance of Vigimed and Vigiflow?
3. Define probabilistic method.
4. Explain adverse events following immunization.
5. Write a detailed note on ICD
6. Describe phase I of clinical trial.
7. Explain WHO scale.
8. Describe the Types of services provided by CROs.
9. Define the terms (a) Case Reports (b) Cohort studies
10. Define WHO drug dictionary.

PART-B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Explain in detail on communication with regulatory agencies, business partners. Describe health care facilities and media.
12. Describe pharmacogenetic variations attributed to CYP450 isoenzymes inhibition and induction.
13. Briefly explain International Non-Proprietary Name(INN) for drugs.

PART-C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Discuss on organization of WHO-DD.
15. Describe the classification and significance of adverse events following immunization programme.
16. Explain individual case safety reports.
17. Discuss on the history of ICD.
18. Write about drug safety evaluation in pediatrics.
19. Write a short note on types of vaccine failure.
20. Write about the Pharmacovigilance program of India.
21. Briefly describe safety evaluation at pre-clinical and clinical trial phase.
22. What is the importance of CIOMS in Pharmacovigilance?

******

OU - 1706 OU - 1706

Women's College of Pharmacy LIBRARY Acc.No. DL RBVRR * Hyd-27 *

Code No: E-12333/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII-Semester (PCI) (Main & Backlog) Examination, July / August 2023

Subject: Pharmacovigilance (Elective –I)

Time: 3 Hours **Max. Marks: 75**

PART-A

Note: Answer all the question. **(10 x 2 = 20 Marks)**

1. Write the steps involved in reporting ADR.
2. List out the genetically determined toxicities.
3. Write the responsibilities of CDSCO.
4. What is phase II of clinical trial?
5. Mention any six drugs contraindicated in pregnant and lactating women.
6. List out the objectives of ICH
7. Write the factors affecting immunization safety.
8. Describe cross sectional studies.
9. What are the factors affecting AEFI surveillance.
10. Mention the ADR following immunization.

PART -- B

Note: Answer any two question. **(2 x 10 = 20 Marks)**

11. Define ADR. Enumerate the different methods of causality and severity assessment of ADR. Explain WHO scale.
12. Define pharmacovigilance. Discuss the role of pharmacist in detection, reporting and management of ADRs.
13. Explain in detail MedDRA. Compare and contrast various observation methods for vaccine safety study.

PART – C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Explain organization and function of ICH.
15. Describe standard MedDRA queries.
16. Discuss about individual case safety reports.
17. Explain CIOMS requirements for ADR reporting.
18. Write about drug event monitoring program.
19. What is Narinjo scale? Explain the importance of communication in pharmacovigilance.
20. Discuss in detail vaccine safety surveillance.
21. Explain in detail about spontaneous case reports and case series.
22. Explain drug safety evaluation in geriatric and pediatric populations.

****

OU - 1706 OU - 1706

Code No: E-12066/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII Semester (PCI) (Make-up) Examination, November 2022

Subject: Pharmacovigilance (Elective-I)

Time: 3 Hours **Max. Marks: 75**

Women's College IBRARY Acc.No: Dt: Hyd-17

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Define the terms a) Pharmacovigilance b) ADR c) ADE
2. Explain daily defined doses.
3. What is vaccine Pharmacovigilance?
4. Explain post approval phase in clinical trails.
5. What is PVPI? What are its objectives?
6. Give the importance of safety monitoring of medicine.
7. What is contract research organization?
8. Explain the importance of communication in Pharmacovigilance.
9. What are individual case safety reports?
10. Write about CIOMS.

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Write about a) genetic related ADR b) Management of ADR.
12. Explain a) Safety data generation in clinical phase b) periodic safety update reports.
13. Write about drug safety evaluation in geriatrics.

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Describe detection and reporting of ADR.
15. List out the information resources in Pharmacovigilance.
16. What is vaccine safety surveillance?
17. Describe the post approval expedited reporting.
18. Explain pharmacogenomics of ADR.
19. Write about the methods in causality assessment.
20. Describe the establishment of Pharmacovigilance in hospital.
21. Explain a) Active surveillance b) Passive surveillance.
22. Write about the differences in Indian and global Pharmacovigilance requirements.

*****

OU - 1706 OU - 1706

Code No. D-8109/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII Semester (PCI) (Main & Backlog) Examination,
June / July 2022
Subject: Pharmacovigilance (Elective-I)

LIBRARY Acc.No: DL: Hyd-27

Time: 3 Hours **Max. Marks: 75**

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Write a note on Naranjo scale in assessing on ADR.
2. What is the causality assessment in ADR monitoring.
3. Write down the purpose of the ATC classification of drugs.
4. What are the basic drug information resources available.
5. Write a short note on method of passive surveillance in pharmacovigilance.
6. What are the principles of good pharmacovigilance communication.
7. What is the pre-clinical phase in clinical trails.
8. Write a short note on periodic safety update reports.
9. What are the differences in Indian and global pharmacovigilance requirements.
10. Write a short note on schedule "Y".

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. (a) Describe the organization and objectives of ICH.
    (b) Write about the WHO international drug monitoring programme.
12. (a) Detailed note on ADR's with suitable examples.
    (b) Write a detailed note on Contrast Research Organizations [CRO].
13. (a) Write a detailed note on communication in Drug Safety crisis Management.
    (b) Detailed note on Drug Therapy for pregnancy and lactation.

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Write a note on CIOMS working groups.
15. Write in detail about clinical phase and post approval phase.
16. Write in detail about international classification of diseases.
17. Write a note on spontaneous reports and cohort study.
18. Write a note on communication with Regulatory Agencies and Healthcare facilities.
19. Write about the predictability and preventability assessment of ADR.
20. Write a detailed note on MedDRA.
21. Discuss regulatory considerations in pharmacovigilance and what are the outcomes pharmacovigilance.
22. Explain in detail about Drug interactions and ADR's.

* * *

OU - 1706

Code No: 12264/PCI

FACULTY OF PHARMACY

Women's College of Pharmacy LIBRARY Acc.No:..... DL..... Hyd-27

B. Pharmacy VIII - Semester (PCI) (Main) Examination, July 2021

Subject : Pharmacovigilance (Elective-I)

Time: 2 Hours **Max. marks: 75**

Note: Answer Seven questions from Part –A, any One questions from Part- B and any Five questions from Part- C

Part A (7x3=21 marks)

1. Write down the WHO definition of "ADR"
2. What is De challenging and Re challenging of drugs in ADR detection
3. Describe the importance of safety monitoring of medicine
4. Write a short note on Daily Defined Dose (DDD)
5. Write the importance of vaccine safety surveillance
6. Write a short note on methods of Stimulating Reports in pharmacovigilance
7. What are the steps involved in the process of communication in pharmacovigilance
8. Describe the objectives of ICH guidelines
9. Write a short note on Schedule "Y"?
10. What are the differences in Indian and Global pharmacovigilance requirements?

Part B (1x14=14 marks)

11. a) Write a note on CIOMS working groups
    b) Write about Drug safety evaluation in Geriatrics population

12. a) Write briefly about safety data generation
    b) Write a note on Adverse events following immunization

13. a) Write a note on History of Pharmacovigilance
    b) Write about the establishment and operation of Drug safety department in industry

Part C (5x8=40 marks)

14. Write a note on Anatomical and therapeutic and chemical classification of drugs
15. Write a detailed note on Pharmacovigilance programme of INDIA (PvIP)
16. Write about comparative observational studies
17. Explain about the management of ADR
18. Write a detailed note on MedDRA
19. Write a note on Periodic safety update reporting
20. Write about the specialization resources for ADR's
21. Write a note on Geriatric related ADR with example focusing on Pharmacokinetic parameters
22. Write a note on Schedule Y of D & C act

****

Code No: 12264/PCI

FACULTY OF PHARMACY

RBVRR Women's College of Pharmacy LIBRARY Acc No:..... Date:...

B. Pharmacy VIII - Semester (PCI) (Main) Examination, July 2021

Subject : Pharmacovigilance (Elective-I)

Time: 2 Hours **Max. marks: 75**

Note: Answer Seven questions from Part –A, any One questions from Part- B and any Five questions from Part- C

Part A (7x3=21 marks)

1. Write down the WHO definition of "ADR"
2. What is De challenging and Re challenging of drugs in ADR detection
3. Describe the importance of safety monitoring of medicine
4. Write a short note on Daily Defined Dose (DDD)
5. Write the importance of vaccine safety surveillance
6. Write a short note on methods of Stimulating Reports in pharmacovigilance
7. What are the steps involved in the process of communication in pharmacovigilance
8. Describe the objectives of ICH guidelines
9. Write a short note on Schedule "Y"?
10. What are the differences in Indian and Global pharmacovigilance requirements?

Part B (1x14=14 marks)

11. a) Write a note on CIOMS working groups
    b) Write about Drug safety evaluation in Geriatrics population

12. a) Write briefly about safety data generation
    b) Write a note on Adverse events following immunization

13. a) Write a note on History of Pharmacovigilance
    b) Write about the establishment and operation of Drug safety department in industry

Part C (5x8=40 marks)

14. Write a note on Anatomical and therapeutic and chemical classification of drugs
15. Write a detailed note on Pharmacovigilance programme of INDIA (PvIP)
16. Write about comparative observational studies
17. Explain about the management of ADR
18. Write a detailed note on MedDRA
19. Write a note on Periodic safety update reporting
20. Write about the specialization resources for ADR's
21. Write a note on Geriatric related ADR with example focusing on Pharmacokinetic parameters
22. Write a note on Schedule Y of D & C act

****

Code No. G-13115/PCI

FACULTY OF PHARMACY

B. Pharmacy (PCI) VIII - Semester (Main & Backlog) Examination, July 2025

Subject: Quality Control and Standardization of Herbals (Elective-I)

Time: 3 Hours **Max. Marks: 75**

PART – A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Define Stomata.
2. Difference between TLC & HPTLC.
3. Types of markers with examples.
4. Explain an Extractive value and its significance.
5. Define SOP.
6. Explain the six system inspection model?
7. Explain various examples of herbal drug interaction.
8. What is preliminary carcinogenicity study?
9. Write the WHO guidelines for safety monitoring of herbal medicine.
10. What is quality Audit?

PART – B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Explain the different parameters in the evaluation of crude drugs.
12. Explain the export registration for pharmaceutical requirements. Discuss the role of AYUSH and D&C act provision.
13. How the chemical and biological marker helpful in standardization of herbal products.

PART – C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Write a note on good manufacturing process of herbal drugs.
15. Explain the importance of HPTLC method in the standardization of herbal drugs.
16. Write a note on regulatory requirement for herbal drugs.
17. Describe the guidelines on safety and efficacy of herbal medicine.
18. Explain WHO guidelines on current good manufacturing practices for herbal medicine.
19. Discuss about the assessment of Genotoxicity of herbal preparations.
20. Define and classify markers with examples.
21. Describe the basic test for medicinal plant material.
22. Explain ICH guidelines for the quality control of herbal drugs.

* * *

OU - 1706

Women's College of Pharmacy LIBRARY Acc.No. Hyd-27

Code No: E-12334/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII-Semester (PCI) (Main & Backlog) Examination, July / August 2023

Subject: Quality control and standardization of herbals (Elective-I)

Time: 3 Hours **Max. Marks: 75**

PART-A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. List out the various WHO guidelines for the safety of herbal drugs.
2. List out the contents of a protocol for a clinical trial for the safety of herbal medicines.
3. Define GACP and write its importance.
4. Define standardization and write its importance.
5. Name the various parameters for evaluation of commercial drugs intended for use.
6. Define monographic analysis.
7. How does FDA regulate natural products in the US.
8. What are the differences between HPLC and HPTLC?
9. What is an accelerated stability study?
10. Give the significance of ICH guidelines for the safety of herbal.

PART-B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Explain the advanced analytical methods of evaluation of crude drugs.
12. What are the challenges in the stability testing of herbal products? Explain a suitable protocol for testing the stability of herbal drug
13. What do you understand by 'Quality assurance in herbal Industry'? Explain the importance of GMP in the Herbal Industry.

PART-C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Explain the method to determine the microbial and aflatoxin content in the herbal drugs.
15. Explain the application of HPLC for the standardization of a herbal drug.
16. What are the WHO guidelines for safety monitoring of herbal drugs.
17. Explain briefly the good agriculture practices of herbal drugs.
18. Explain the identification and estimation of pesticide residues in plant products.
19. Give a protocol for clinical trials in herbal medicine.
20. Explain the role of chemical and biolcgical markers in the standardization of herbal products.
21. What is a traditional system of medicine? What are the GLP requirements in the traditional system of medicine?
22. Mention the different types of Herbal Industries. Explain the importance of WHO. Guidelines for quality assurance in these herbal Industries.

******

Code No: G-13119/PCI

FACULTY OF PHARMACY

B. Pharmacy (PCI) VIII - Semester (Main & Backlog) Examination, July 2025

Subject: Dietary Supplements and Nutraceuticals (Elective-II)

Time: 3 Hours **Max. Marks: 75**

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Define flavonoids and polyphenolics.
2. Write the benefits of Public health nutrition.
3. Write short notes on Reactive Oxygen Species.
4. Give the occurrence and medical benefits of Lignans and Rutin.
5. Explain the importance of anti-oxidants.
6. Write about complex carbohydrates as functional food ingredients.
7. Give the source, chemical nature and uses of Tea and coffee.
8. Explain about non-enzymatic antioxidant defence.
9. Name the marker compounds of soyabean and flax seeds.
10. Write about FDA on food safety.

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Explain in detail the effect of processing, storage and interactions of various environmental factors on the potential of neutraceuticals.
12. (a) Explain the role of antioxidants in the treatment of Cancer.
    (b) Write about various nutritional education in a community.
13. (a) Explain various functional foods for chronic disease prevention.
    (b) Explain various mechanisms of free radicals involved in the treatment of disorders.

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Write in detail about dietary fibres.
15. Explain the role of various endogenous anti-oxidants.
16. Explain in role of free radicals in brain metabolism.
17. Explain the effect of environmental factors in the potential of entioxidants.
18. Give the importance of proteins and vitamins as functional foods.
19. Give the occurrence, chemical nature and uses of Ginseng and Spirulina.
20. Explain the regulatory aspects of GMP`s on food safety.
21. Explain the chemical nature and medical benefits of Resvertrol and tocopherols.
22. Define carotenoids and give the source and medicinal benefits of any two carotenoids.

******

Women's College of Pharmacy LIBRARY Acc.No: DL

Code No. E-12337/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII Semester (PCI) (Main & Backlog) Examination, August 2023

Subject: Dietary Supplements & Nutraceuticals (Elective-II)

Time: 3 Hours **Max. Marks: 75**

PART-A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Explain the term 'nutrition education' and its role in promotion of community health.
2. Write about any two nutraceuticals that slow ageing process.
3. Differentiate functional foods and nutraceuticals. Write about omega fatty acids
4. Write source, active constituents and health benefits of broccoli and ginseng.
5. Write source and markers for sulphide compounds in any two foods. How are they beneficial in the prevention or management of chronic diseases.
6. Explain AGMARK
7. How complex carbohydrates differ from simple sugars. What are their sources and health benefits?
8. How does stress impact health. Write interventions to minimize its pathological influence?
9. Write about any two antioxidant enzymes.
10. Write the health benefits of tocopherols.

PART-B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Write a note the detrimental effects of processing, storage and environment on the potential of nutraceuticals.
12. Write about: (i) Probiotics (ii) Nutraceuticals in cancer
13. Write about flavonoids and their Health benefits with examples.

PART-C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Discuss in detail adulteration of any five common foods. Pinpoint the health hazards of the adulterants.
15. Discuss the responsibilities of regulatory body FSSAI in ensuring safety of food.
16. Write in detail the mechanism of free radical induced damage to lipids.
17. Write about polyphenols as potential antioxidants with examples.
18. Write about sources and health benefits of lactobacillus and melatonin.
19. Write a note on exogenous factors influencing the quality of nutraceuticals.
20. Write a note on food supplements that help in the management of diabetes.
21. Write about the importance of nutrition in children, pregnant women.
22. Write about the nutritional value and health benefits of oats, rice bran, wheat bran.

******

OU - 1706

Code No: 12270/PCI

FACULTY OF PHARMACY

Vaagdevi College of Pharmacy LIBRARY Hyd-2

B. Pharmacy VIII - Semester (PCI) (Main.) Examination, July 2021

Subject: Dietary Supplements and Nutraceuticals (Elective-I/II)

Time: 2 Hours **Max. Marks: 75**

Note: Answer Seven questions from Part -A, any One questions from Part- B and any Five questions from Part- C

Part A (7x3=21 marks)

1. Define flavonoids and polyphenolics.
2. Write the benefits of Public health nutrition.
3. What are tocopherols and give examples.
4. Give the occurrence and medical benefits of Lignans and Rutin.
5. Explain the importance of anti-oxidants.
6. Write about complex carbohydrates as functional food ingredients.
7. Give the source, chemical nature and uses of Tea and coffee.
8. Explain about non-enzymatic antioxidant defence.
9. Name the marker compounds of soyabean and flax seeds.
10. Write about FDA on food safety.

Part B (1x14=14 marks)

11. Explain in detail the effect of processing, storage and interactions of various environmental factors on the potential of neutralceuticals.
12. a) Explain the role of antioxidants in the treatment of Cancer.
    b) Write about various nutritional benefits in a community.
13. a) Classify various nutraceuticals with examples.
    b) Explain the role of Reactive Oxygen Species involvement in the treatment of disorders.

Part C (5x8=40 marks)

14. Write in detail about adulteration of foods?
15. Explain the role of various endogenous anti-oxidants.
16. Explain in detail about dietary fibres.
17. Explain the free radicals theory of ageing.
18. Give the importance of proteins and vitamins as functional foods.
19. Give the occurrence, chemical nature and uses of Ginseng, Spirulina.
20. Explain the regulatory aspects of GMP`s on food safety.
21. Explain the role of free radicals in cancer
22. Define carotenoids and give the source and medicinal benefits of any two carotenoids.

****

OU - 1706

Code No: D-8115/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Main & Backlog) Examination, July 2022

Subject: Dietary Supplements and Nutraceuticals (Elective-II)

Time: 3 Hours **Max. Marks: 75**

LIBRARY Hyd-21

PART – A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Define nutraceuticals and dietary supplements.
2. Write short notes on Reactive Oxygen Species.
3. What are probiotics and give examples.
4. Give the occurrence and medical benefits of Lycopene.
5. Explain the importance of synthetic anti-oxidants.
6. Write about dietary fibres as functional food ingredients.
7. Give the source, chemical nature and uses of Oats and Rice bran.
8. Explain about enzymatic antioxidant defence.
9. What are Probiotics and prebiotics.
10. Write about AGMARK on food safety.

PART – B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Explain in detail the effect of processing, storage and interactions of various environmental factors on the potential of neutraceuticals.
12. a) Explain the role of Glutathione peroxidase and Superoxide dismutase.
    b) Write about public health nutritional benefits in a community.
13. Explain various mechanisms of free radicals involved in the treatment of disorders.

PART – C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Explain the role of anti-oxidants in the treatment of kidney damage.
15. Explain in detail about Carotenoids.
16. Explain the free radicals theory of ageing.
17. Give the pharmacopeial specifications for complex carbohydrates.
18. Give the occurrence, chemical nature and uses of Gingko and Ginseng.
19. Explain the regulatory aspects of FSSAI on food safety.
20. Explain the role of free radicals with lipids.
21. Define flavonoids and give the source and medicinal benefits of any two flavonoids.
22. Write in detail about adulteration of foods?

****

OU-1706 OU-1706

Code No: 12270/PCI

FACULTY OF PHARMACY

Raghavendra's College of Pharmacy LIBRARY Acc.No:..... Hyd-27

B. Pharmacy VIII - Semester (PCI) (Main.) Examination, July 2021

Subject: Dietary Supplements and Nutraceuticals (Elective-III)

Time: 2 Hours **Max. Marks: 75**

Note: Answer Seven questions from Part -A, any One questions from Part- B and any Five questions from Part- C

Part A (7x3=21 marks)

1. Define flavonoids and polyphenolics.
2. Write the benefits of Public health nutrition.
3. What are tocopherols and give examples.
4. Give the occurrence and medical benefits of Lignans and Rutin.
5. Explain the importance of anti-oxidants.
6. Write about complex carbohydrates as functional food ingredients.
7. Give the source, chemical nature and uses of Tea and coffee.
8. Explain about non-enzymatic antioxidant defence.
9. Name the marker compounds of soyabean and flax seeds.
10. Write about FDA on food safety.

Part B (1x14=14 marks)

11. Explain in detail the effect of processing, storage and interactions of various environmental factors on the potential of neutralceuticals.
12. a) Explain the role of antioxidants in the treatment of Cancer.
    b) Write about various nutritional benefits in a community.
13. a) Classify various nutraceuticals with examples.
    b) Explain the role of Reactive Oxygen Species involvement in the treatment of disorders.

Part C (5x8=40 marks)

14. Write in detail about adulteration of foods?
15. Explain the role of various endogenous anti-oxidants.
16. Explain in detail about dietary fibres.
17. Explain the free radicals theory of ageing.
18. Give the importance of proteins and vitamins as functional foods.
19. Give the occurrence, chemical nature and uses of Ginseng, Spirulina.
20. Explain the regulatory aspects of GMP`s on food safety.
21. Explain the role of free radicals in cancer
22. Define carotenoids and give the source and medicinal benefits of any two carotenoids.

****

OU - 1706 OU - 1706

Code No: G-13112/PCI

FACULTY OF PHARMACY

B. Pharmacy (PCI) VIII – Semester (Main & Backlog) Examination, July 2025
Subject: Pharmaceutical Marketing Management (Elective-I)

Time: 3 Hours **Max. Marks: 75**

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Differentiate between marketing and selling
2. Mention the parameters to be considered for competitive analysis.
3. What is product mix and mention its importance.
4. Mention the benefits and limitations of medical exhibition in promotion.
5. Write the role of journals in product promotion.
6. Write advantages and disadvantages of wholesalers.
7. Mention the future roles of professional sales representatives.
8. What is vertical marketing?
9. Write the differences in advertising and publicity.
10. Write the objectives of pricing.

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Describe the qualifications and duties of professional sales representative.
12. Write the overview of DPCO and its importance in pharmaceutical marketing management.
13. Explain the stages of product life cycle and mention their impact on branding and product decisions.

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Describe the qualitative and quantitative aspects of pharmaceutical marketing.
15. Describe the factors influencing the motivation and prescribing habits of physician.
16. What is market research and describe its role in pharmaceutical marketing management.
17. Explain factors affecting new product decisions and product positioning.
18. Write the online promotional techniques for OTC products and mention the regulations applicable to them.
19. Describe the strategic importance of pharmaceutical marketing channels.
20. Write the approaches of motivation and compensation planning for professional sales representative.
21. Write factors to be considered for fixation of price.
22. Compare and contrast rural marketing and industrial marketing.

******

OU - 1706

Code No: E-12331/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII- Semester (PCI) (Main & Backlog) Examination, July / August 2023
Subject: Pharmaceutical Marketing Management (Elective-I)

Time: 3 Hours **Max.Marks:75**

PART-A

Note: Answer all the questions **(10 x 2 = 20 Marks)**

1. Define marketing and mention its scope.
2. Write the elements of the product mix.
3. Define advertisement.
4. Classify products in pharmaceutical marketing.
5. Write objectives of medical exhibition.
6. Differentiate between consumer and buyer.
7. Write evaluation criteria for professional sales representatives.
8. Write the benefits and drawbacks of direct mailing.
9. What is industrial marketing?
10. What is the role of retailing in promotion?

PART-B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Explain various approaches to analyze the consumer behavior in pharmaceuticals.
12. Write in detail the steps involved in personal selling.
13. Describe the role of channels in physical distribution management and mention their merits and demerits.

PART-C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. What is the consumer profile? Mention the approaches for consumer profiling.
15. Explain the factors and methods applicable to product portfolio management.
16. Differentiate between marketing and selling.
17. Describe different elements of the marketing environment.
18. Explain the role of marketing research on sales of pharmaceuticals.
19. Explain the motivational factors that influence the prescribing habit of physicians.
20. What is product portfolio analysis and mention its role in product positioning.
21. Write the salient features of DPCO and its significance in pharmaceutical business.
22. What is consumerism? Write the roles of pharmacist and physician in consumerism.

******

Code No: E-12064/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII Semester (PCI) (Make-up) Examination, November 2022

Subject: Pharma Marketing Management (Elective-I)

Time: 3 Hours **Max. Marks: 75**

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Write about the general concepts of marketing.
2. What is consumer profile?
3. What is market segmentation and targeting?
4. Write about product life cycle.
5. What is sampling in promotion?
6. What is NPPA?
7. Give a note on promotional budget.
8. Define consumerism.
9. What are the future prospects of Professional sales representative?
10. What are the objectives of Pricing?

RBVRR Women's College of Pharmacy LIBRARY Acc.No:..... Dt..... Hyd-27

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. (a) Write about industrial and global marketing.
    (b) Give the importance of pricing and write its objectives.

12. (a) What are the online promotional techniques for OTC products.
    (b) Write a note on Product decision.

13. Write about the quantitative and qualitative aspects of Pharmaceutical market.

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Write about the methods of promotion.
15. What are the duties of Professional sales representative (PSR)?
16. Discuss about packaging and labeling decisions.
17. Explain how the market segmentation and targeting is done.
18. Write about emerging concepts in marketing.
19. Give an overview of personal selling and advertising.
20. What are the tasks in Physical distribution management?
21. Write about global marketing.
22. Write about determinants of promotional mix.

*****

OU - 1706

Code No. D-8107/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII Semester (PCI) (Main & Backlog) Examination, July 2022

Subject: Pharma Marketing Management (Elective-I)

Time: 3 Hours **Max. Marks: 75**

Nirmala College of Pharmacy LIBRARY Acc.No: Hyd-27

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Define Marketing.
2. Distinguish between marketing and selling.
3. Write in brief about product decision.
4. Give the importance of product management in Pharmaceutical industry.
5. Write the objectives of Drug Price Control Order.
6. What is Physical distribution management?
7. What is product branding?
8. Define advertising.
9. Write about the role of market research.
10. What is Pricing and give its importance?

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11(a) Describe various methodologies of promotion.
(b) Explain about product life cycle.
12(a) Describe in detail pricing methods and strategies.
(b) Explain the issues in price management in pharmaceutical industry.
13. Write about Pharmaceutical marketing channels.

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Write about marketing environment.
15. Discuss about the National Pharmaceutical Pricing Authority.
16. Explain various theories of motivation.
17. Write about global marketing.
18. Write about medical exhibition and public relations.
19. Write about new product decisions.
20. Write a note on product positioning.
21. Write the future prospects of the Professional sales representative (PSR).
22. What are tasks in physical distribution management?

*****

OU - 1706 OU - 1706

Code No. 12005 / CBCS

FACULTY OF PHARMACY

B. Pharmacy VIII-Semester (Backlog) Examination, July 2021

VRR Women's College of Pharmacy LIBRARY Acc.No: Dt. Hyd-21

Subject : Current Good Manufacturing Practice (Open Elective)

Time: 2 Hours Max. Marks: 70

Note: Answer any four questions. (4 x 17 ½ = 70 Marks)

1 Write the USFDA guidelines applicable for manufacturing of pharmaceuticals.

2 Explain the evolution and principles of cGMP.

3 Write Labelling requirements of liquid orals and parenterals.

4 Describe the procedures for maintenance of pharmaceutical equipment.

5 Describe various elements of Total Quality Management.

6 Describe the procedures and role of ISO 14000 in environmental management systems.

7 Explain the general principles of analytical method validation.

8 Define and write general principles of Qualification, Calibration and Validation.

9 a) Explain the procedures for handling of market complaints.
b) Explain the critical parameters for validation of water systems.

10 Write the significance and modules of Common Technical Documentation.

*****

OU - coe OU - coe

Kakatiya University College of Pharmaceutical Sciences LIBRARY Acc.No: Dt. Hyd-27

Code No: E–12338/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII-Semester (PCI) (Main & Backlog) Examination, August 2023
Paper: Cell and Molecular Biology (Elective–II)

Time: 3 Hours **Max. Marks: 75**

PART-A

Note: Answer all the question. **(10 x 2 = 20 Marks)**

1. Differentiate between Mitosis and Meiosis
2. Define genetic code
3. Enlist the functions of Okasaki fragments
4. What are SSB proteins?
5. Enlist the properties of the cells
6. Differentiate between prokaryotes and eukaryotes
7. Differentiate between DNA and RNA
8. Enlist the components of Lac –operon
9. Enlist any two concern branches of cell biology
10. What are spindle fibres?

PART-B

Note: Answer any two question. **(2 x 10 = 20 Marks)**

11. Write in details about definition, theory, basics and applications of cell and molecular Biology.
12. Describe in detail about the enzymes involved in DNA replication.
13. Write in detail about cell signaling pathways and its misregulation.

PART-C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Explain the mechanism of cell cycle.
15. Explain in detail the significance of protein synthesis.
16. Explain in detail functioning of protein kinases.
17. Explain the gene structure of prokaryotic cell.
18. Explain in detail the protein structure.
19. Explain Chargaff's law.
20. Write a short note on classification of cell types.
21. Explain the DNA replication mechanism in eukaryotes.
22. Explain in detail significance of protein synthesis.

****

OU - 1706 OU - 1706

Code No. D-8112/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII Semester (PCI) (Main & Backlog) Examination, July 2022

Subject: Cell & Molecular Biology (Elective-II)

Time: 3 Hours **Max. Marks: 75**

Vaagdevi College of Pharmacy LIBRARY Acc.No: DL Hyd-27

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. What is the function of Restriction endonucleases?
2. Differentiate microtubules and microfilaments.
3. Define chromatin.
4. What is osmosis and diffusion?
5. Differentiate SER and RER.
6. Discuss the role of the enzyme DNA ligase plays during DNA replication.
7. Mention different sub-stages of prophase-2 of meiotic cell division.
8. Write any two differences between Meiosis-1 and meiosis-2.
9. Give the sequence of events occurring during prophase of mitosis.
10. Write the characteristic feature of telophase M phase?

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. What are chromosomes? Write a detailed account on discovery, structure, number and significance of chromosomes in prokaryotic and eukaryotic cells. Draw labelled diagrams wherever necessary.
12. What are the structural and regulatory genes? Explain genetic control of protein synthesis.
13. Briefly describe about giant chromosomes. Explain the structure and functions of nucleus and its components.

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Write an account on the types of RNA. Discuss their functions.
15. (i) Construct a complete transcription unit with promnoter and terminator on the basis A T G C A T G C A T A C
    (ii) Write the RNA strand transcribed from the above transcription unit along with its polarity.
16. Explain the role of DNA-dependent RNA polymerse in transcription.
17. What is Bacterial Transduction? Explain the process of Tansduction in Bacteria.
18. Distinguish between mitosis and meiosis with appropriate diagrams.
19. Describe the stages of prophase-1 of meiosis.
20. Describe the stages of mitosis.
21. Describe the Watson and Crick model of DNA structure with labelled diagram.
22. Define Cell cycle. Explain the sequence of events in cell cycle with the aid of a labelled diagram.

* * *

Code No: 12267/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Main) Examination, July 2021

Subject : Cell and Molecular Biology (Elective-II)

Time: 2 Hours **Max. marks: 75**

RBVRR Women's College of Pharmacy LIBRARY Acc.No:..... Dt.....

Note: Answer Seven questions from Part –A, any One questions from Part- B and any Five questions from Part- C

Part A (7x3=21 marks)

1. Name the Cell organelle responsible for
   a) Electron Transport Chain b) Autolysis
2. Name the two scientists who proposed the Cell theory
3. What is RNA polymerase?
4. Define phagocytosis
5. Write any two functions of nucleosomes
6. Write the major difference between transduction and translation
7. Write any two differences between prokaryoteic and eukaryotic cells
8. What are the functions of protien kinases
9. What is denaturation?
10. What is the role of Primer in DNA replication?

Part B (1x14=14 marks)

11. Define Genetic code. Write the characteristics of Genetic code and explain the Lac operon hypothesis
12. Give an account of double stranded DNA with respect to its structure, function and replication.
13. Write an essay on interphase nucleus with the help of labelled diagram

Part C (5x8=40 marks)

14. Define plasma memberane. Explain the singer and Nicholson's membrane model of plasma membrane structure
15. Explain the functions of Golgi bodies, Ribosomes with labelled diagrams
16. What is Central Dogma of Molecular Biology? Enumerate the process of Protein synthesis with appropriate diagrams
17 Give an account on the structure and functions of the RNA and DNA molecules
18. Describe the structure and functions of tRNA. How does it differ from mRNA?
19. Describe the Watson and Crick model of DNA structure with labelled diagram
20. Briefly explain the process of meiosis with emphasis on Anaphase stage
21. What is Bacterial Transduction? Explain the process of Transduction in Bacteria
22. Distinguish between metaphase of mitosis and metaphase-1 of meiosis.

****

PCI – Only Elective Subjects

Code No: G-13121/PCI

FACULTY OF PHARMACY

B. Pharmacy (PCI) VIII - Semester (Main & Backlog) Examination, July 2025
Subject: Experimental Pharmacology (Elective-II)
(Pharmacological Screening Methods)

Time: 3 Hours **Max. Marks: 75**

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. What are common laboratory animals?
2. Write the composition of IAEC.
3. Enlist various techniques of blood collection in common laboratory animals
4. What is one way ANOVA?
5. List out screening methods for drugs acting on eye.
6. Write about Mutant animals.
7. What are nootropics?
8. What is the importance of sham negative and positive control groups?
9. Write about Euthanasia?
10. What are parametric and non-parametric tests?

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Write a note on CPCSEA guidelines for performing experiments on animals. Describe in detail about requirement for IAEC permission on animal studies.
12. Describe the screening models for evaluation of a compound for Antihypertensive drugs.
13. Write in detail about the methods of screening for antihypertensive and anti arrhythmias.

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Write a note on *in vivo* methods for screening of antiepileptic drugs.
15. What is Research? Mention the significance of selection of research topic.
16. Describe various routes of drug administration in animals with advantages and disadvantages.
17. Write a brief note on screening methods of analgesic drugs.
18. Explain the applications of transgenic animals in pharmacological research.
19. Write any two preclinical screening methods for antidepressant activity.
20. Explain the screening methods for diuretics.
21. Explain the criteria of dose selection and calculations of dose for animals.
22. Explain the interpretation of results using Students-t test?

******

Women's College of Pharmacy LIBRARY Acc.No: DL Hyd-27

Code No: E-12340/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII-Semester (PCI) (Main & Backlog) Examination, August 2023
Subject: (Pharmacological Screening Methods) Experimental Pharmacology (Elective-II)

Time: 3 Hours **Max. Marks: 75**

PART-A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Write the composition of IAEC.
2. Write applications of Mutant animals.
3. Enlist preclinical screening methods for diuretics.
4. Define hypothesis with examples.
5. Enlist various techniques for collection of blood sample.
6. What are different techniques of Euthanasia.
7. List out screening methods for drugs acting on eye.
8. Enlist pre clinical screening methods for anti-inflammatory actvity.
9. What are parametric and non parametric tests.
10. Name different methods used for screening parasympatholytics.

PART-B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Write a note on CPCSEA guidelines for performing experiments on animals. Describe in detail about requirement for IAEC permission on animal studies.
12. Explain various methods to evaluate a compound for antidiabetic activity by invivo, invitro methods.
13. Give methods of screening for antihypertensives and anti arrhythmics.

PART-C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Explain different methods for collection of blood in laboratory animals.
15. Describe anyone preclinical screening method for diuretic activity.
16. Describe different routes of drug administration in laboratory animals.
17. Discuss one screening method for anticoagulant.
18. Write any two preclinical screening methods for antidepressant activity.
19. Explain the applications of transgenic animals in pharmacological research.
20. Explain significance of statistical analysis of student t-test.
21. Enumerate any two preclinical screening methods for local aneasthetics.
22. Discuss one screening method for antidiabetic activity.

******

OU - 1706

Code No: 12271/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Main) Examination, July 2021

Experimental Pharma Cology

Subject : (Pharmacological Screening Methods) (Elective-II)

RBVR Women's College of Pharmacy LIBRARY Acc.No: DL Hyd-27

Time: 2 Hours **Max. marks: 75**

Note: Answer Seven questions from Part –A, any One questions from Part- B and any Five questions from Part- C

Part A (7x3=21 marks)

1. List the different species of animals used in laboratory
2. What are transgenic animals and mutant animals?
3. List the common routes of drug administration in animals
4. What is study design?
5. List various agents which cause inflammation
6. What are coagulants and anticoagulants?
7. What is Euthanasia and list the techniques of euthanasia
8. What is Students t test and where is it used?
9. How is does selected in preclinical screening methods?
10. What is preclinical data analysis?

Part B (1x14=14 marks)

11. Describe the preclinical screening procedures for antidiabetic drugs
12. Define inflammation. List out the methods available to induce inflammation and describe on acute and one chronic model in the screening of anti-inflammatory agents.
13. Discuss the *in vitro* and *in vivo* techniques for screening of anticancer agents

Part C (5x8=40 marks)

14. Write a brief note on screening methods of antinflammatory drugs.
15. Explain the screening methods for diuretics
16. What is Research? Mention the significance of selection of research topic
17. What are the OECD guidelines for maintenance and breeding of laboratory animals?
18. Explain the techniques of blood collection from animals
19. Write a note on methods involved in the screening of nootropics
20. What are antiasthamatic agents? Discuss the methods involved in their screening
21. Write the preclinical screening methods of sympathmimetics
22. Describe the preclinical screening methods of antihyperlipidemic drugs.

****

LIBRARY
Acc.No:
Dt.

Code No: E-12335/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII-Semester (PCI) (Main & Backlog) Examination, July / August 2023

Subject: Computer Aided Drug Design (Elective-I)

Time: 3 Hours **Max. Marks: 75**

PART-A

Note: Answer all the question. **(10 x 2 = 20 Marks)**

1. Define the term energy minimization.
2. Explain the significance of partition coefficient.
3. Differentiate between lead and drug.
4. What is the serendipitous drug discovery? Give an example.
5. Explain the significance of Taft's steric constant.
6. Differentiate between rigid and flexible docking studies.
7. Write about *de novo* drug design.
8. What are pharmaceutical databases? Give examples.
9. Give examples for ADME databases.
10. What is global conformational minima?

PART – B

Note: Answer any two question. **(2 x 10 = 20 Marks)**

11. Explain in detail about various physicochemical parameters used in QSAR analysis.
12. Describe the concept of pharmacophore-based virtual screening in drug design.
13. Explain the significance of bioisosterism in drug design and development with a specific example.

PART – C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Explain drug metabolism based lead discovery with examples.
15. Differentiate between classical and non-classical bioisosteres.
16. Highlight the significance of Hammet's substituent constant in QSAR analysis and Write its determination.
17. Differentiate between Hansch & Free-Wilson QSAR analysis.
18. Write in detail about drug-likeness screening.
19. Explain any one cheminformatics tool used in drug design.
20. What is PDB? Explain its features and applications in drug design.
21. Explain the role of molecular mechanics in drug design.
22. Write briefly about conformational analysis.

****

Code No: E-12068/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII Semester (PCI) (Make-up) Examination, November 2022
Subject: Computer Aided Drug Design (Elective-I)

Women's Co-Op. LIBRARY Acc.No: DL Hyd-31

Time: 3 Hours **Max. Marks: 75**

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. What is 3D QSAR?
2. What is serendipitous drug discovery?
3. Explain the role of bioinformatics in drug design?
4. Define quantum mechanics?
5. What is virtual screening?
6. Discuss about druglikeness screening?
7. What is conformational analysis in molecular modelling?
8. What is Taft steric constant?
9. What is similarity searching?
10. Write the examples for Chemical Databases?

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Discuss about Lipophilic and electronic parameters used in QSAR and give a hypothetical Hansch equation for predicting biological activity?
12. What is known as pharmacophore? Discuss the concepts of Pharmacophore based virtual screening?
13. What is molecular docking? Write a note on Scoring techniques in Molecular docking?

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Explain in detail about bioisosterism?
15. Explain briefly about the Stages of drug discovery and development?
16. Discuss various models for predicting ADMET properties?
17. Write a note on chemoinformatics?
18. Write a note on applications of Free Wilson analysis in drug design?
19. Discuss about molecular mechanics in drug design and write the applications of molecular mechanics?
20. Discuss about Random screening?
21. Write about COMFA and COMSIA?
22. Explain about Hansch and Freewilsm Analysis.

* * *

OU - 1706 OU - 1706

Code No. D-8111/PCI

FACULTY OF PHARMACY

Raghavendra's College of Pharmacy
LIBRARY
Acc.No:
Hyd-21

B. Pharmacy VIII Semester (PCI) (Main & Backlog) Examination, July 2022

Subject: Computer Aided Drug Design (Elective-I)

Time: 3 Hours **Max. Marks: 75**

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Write about free Wilson analysis?
2. Write the applications of chemoinformatics in drug design?
3. What is virtual screening?
4. Write the Describe the steps involved in Homology modeling of a protein?
5. Define QSAR?
6. Explain the Lipinski's rule of five?
7. Write the examples for protein database?
8. Define Bioisosterism?
9. What is Tafts steric constant?
10. What is flexible docking?

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Write a note on molecular mechanics and Discuss about the importance of energy minimization in molecular modelling?
12. Discuss about the in silico ADMET analysis in drug design?
13. What is 3D-QSAR and write about COMFA and COMSIA methods in 3D QSAR?

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Explain about various steps in molecular docking?
15. Explain the physicochemical properties which influence biological activity?
16. Write about Bioisosteric replacement with the help of case studies?
17. Write a short note on de novo drug design?
18. Explain lead discovery in drug design?
19. Discuss about druglikeness screening?
20. Write about different methods used to determine potential energy surface(PES) of a molecule?
21. Discuss the role of bioinformatics in drug design?
22. Explain about various parameters in druglikeness screening.

*****

OU - 1706

Code No: 12266/PCI

FACULTY OF PHARMACY

SVR Women's College of Pharmacy LIBRARY Acc.No: DL Hyd-27

B. Pharmacy VIII - Semester (PCI) (Main) Examination, July 2021

Subject : Computer Aided Drug Design (Elective-I/II)

Time: 2 Hours **Max. marks: 75**

Note: Answer Seven questions from Part –A, any One questions from Part- B and any Five questions from Part- C

Part A (7x3=21 marks)

1. Define 'Bioisosterism', Explain its significance
2. What are independent and dependent variables in QSAR analysis? Provide a model QSAR equation
3. Explain the significance of partition coefficient
4. Write briefly about de novo drug design
5. Differentiate between lead and drug
6. What is a database? Give its advantages
7. Define the terms 'bioactive conformer' and 'energy minimization'.
8. Explain briefly about global conformational minima in molecular modeling
9. What is a pharmacophore? How its determination is useful in drug design.
10. What are pharmaceutical databases? Give examples

Part B (1x14=14 marks)

11. Define 'Virtual screening'. Write in detail about drug-likeness screening
12. Explain Hansch analysis and its role in predicting biological activity. Write its advantages & Disadvantages
13. Describe various stages involved in drug discovery and development.

Part C (5x8=40 marks)

14. Explain about lead discovery based on traditional medicine
15. Classify bioisosteres with examples
16. What is bioinformatics? Explain various bioinformatics tools used in drug design
17. Describe Free-Wilson QSAR analysis
18. Explain the significance and determination of Hammet's substituent constant in QSAR analysis
19. Explain molecular docking process and its significance in drug design
20. Explain drug metabolism based lead discovery with examples
21. List out various cheminformatics tools used in drug design. Explain any one
22. What is molecular mechanics? Explain its role in molecular modeling

****

Acc.No:
DL
Hyd-27.

Code No: E-12339/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII-Semester (PCI) (Main & Backlog) Examination, August 2023
Sub: Advanced instrumentation techniques (Elective – II)

Time: 3 Hours **Max. Marks: 75**

PART-A

Note: Answer all the question. **(10 x 2 = 20 Marks)**

1. List the different ionisation techniques in MS.
2. Explain the principle of Mass spectroscopy.
3. Define chemical shift.
4. What are the applications of DSC?
5. What is meant by thermal analysis? Name some techniques that are useful in drug Analysis.
6. Briefly explain the production of X-rays.
7. What are the calibration standards used in spectrofluorimeter and IR spectrophotometer?
8. List the parameters for HPLC calibration.
9. Briefly explain DTA.
10. List the important steps in solid phase extraction.

PART – B

Note: Answer any two question. **(2 x 10 = 20 Marks)**

11. Explain the principle of NMR spectroscopy. Add a note on chemical shift and spin-spin coupling.
12. Explain the principle of GC/MS/MS.
13. List and explain the thermal techniques. Explain the principle and instrumentation of DSC.

PART – C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Explain the principle and applications of RIA.
15. Explain the fragmentation rules in MS.
16. Explain the principle of X-ray crystallography.
17. Explain the calibration of HPLC.
18. Explain FAB and MALDI in MS
19. Explain the principle of solid phase extraction.
20. Explain the parts of NMR instrumentation with a diagram
21. What is the difference between calibration and validation? List the validation parameters as per ICH guidelines and explain any two.
22. With a neat labelled diagram explain the instrumentation and application of DSC.

****

OU - 1706

LIBRARY
Acc.No:
Dt.

Code No: E-12072/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII Semester (PCI) (Makeup) Examination, December 2022
Subject: Advanced Instrumentation Techniques (Elective - II)

Time: 3 Hours **Max. Marks: 75**

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Define Chemical shift?
2. Write the principle involved DSC?
3. Write the importance of X-ray crystallography?
4. List out various Validation parameters?
5. Discuss the principle involved in Solid-liquid extraction technique?
6. Discuss the principle involved in DTA?
7. Write the principle involved in NMR?
8. List out various Ionization techniques of Radio immune Assay?
9. Write about various components of Radio immune Assay?
10. Write about basic aspects of crystals?

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. (a) Explain spin-spin coupling and write the Instrumentation of NMR in detail.
    (b) Write about Coupling constant?

12. (a) Explain about MALDI and FAB analyzers.
    (b) Write about Chemical Ionization in detail?

13. Discuss the following hyphenated techniques: A) HPTLC-MS B) LC-MS/MS

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Explain the calibration procedure of HPLC in detail.
15. Write the instrumentation and applications DSC.
16. Write about Radio Immuno assay in detail?
17. Explain Mc-Lafferty Rearrangement in detail?
18. Explain about C-NMR?
19. Write the calibration of GC?
20. Write the instrumentation and applications TGA?
21. Explain about GC-MS/MS?
22. Write about various X-ray diffraction methods?

* * *

OU - 1706 OU - 1706

Code No. D-8114/PCI

Nizam College of Pharmacy LIBRARY Acc.No:..... Dt:..... Hyd-21

FACULTY OF PHARMACY

B. Pharmacy VIII Semester (PCI) (Main & Backlog) Examination, July 2022

Subject: Advanced Instrumentation Techniques (Elective-II)

Time: 3 Hours **Max. Marks: 75**

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Define coupling constant.
2. Explain FAB technique?
3. Write the principle involved in DSC.
4. Define accuracy and precision.
5. Write any two differences between H-NMR and C^{13} NMR.
6. Explain the principle involved in RIA.
7. Mention any four ICH guidelines?
8. Mention the advantages of LC-MS/MS.
9. Explain Chemical ionization technique.
10. Define LOD and LOQ.

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. (a) Write in detail about USFDA guidelines for validation.
    (b) Write the instrumentation and applications of DSC.
12. Define chemical shift and explain about various factors affecting it. Draw a neat sketch of NMR with explanation.
13. Explain the working principle and instrumentation of GC-MS/MS.

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Explain fragmentation in mass spectroscopy.
15. Write the principle and procedure involved in SPE?
16. Write the importance and applications of HPTLC-MS.
17. Explain any three calibration parameters for UV VIS Spectroscopy?
18. Write the calibration procedure for fluorimeter?
19. Explain the importance and components of RIA.
20. Draw a neat sketch and explain X-Ray powder diffraction technique.
21. Write the instrumentation and applications of TGA?
22. Write the calibration procedure for HPLC.

* * *

OU - 1706 OU - 1706

Code No: 12269/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Main) Examination, July 2021

Subject : Advanced Instrumentation Techniques (Elective-II)

RBVR Women's College of Pharmacy LIBRARY Acc.No: Dt:

Time: 2 Hours **Max. marks: 75**

Note: Answer Seven questions from Part –A, any One questions from Part- B and any Five questions from Part- C

Part A (7x3=21 marks)

1. Define calibration?
2. Write the principle involved in differential thermal analysis
3. Write the importance of Radio Immunoassay?
4. Define Validation?
5. Discuss the principle involved in Liquid – liquid extraction technique?
6. Discuss the calibration procedure for electronic balance?
7. Write the principle involved in Mass spectrometry?
8. Write the principle involved in H-NMR?
9. Write about powder diffraction method?
10. Mention hyphenated Techniques and their advantages

Part B (1x14=14 marks)

11. a) What do you mean by chemical shift? Explain the various factors influencing it?
    b) Write about Spin-Spin Coupling and Coupling Constant?

12. a) Draw a sketch diagram and Explain the instrumentation of mass spectrometer
    b) Write about different Fragmentation techniques in mass spectrometry

13. a) Discuss the following hyphenated techniques

    a) $\frac{C}{LC}$ - MS/MS b) GC-MS/MS

Part C (5x8=40 marks)

14. Explain the calibration procedure of a) UV spectrophotometer
    b) IR Spectrophotometer
15. Write the instrumentation and applications TGA
16. Write about X-ray crystallography?
17. Explain MALDI & FAB ionization techniques in Mass Spectrometry
18. Explain Spin - Spin Coupling in NMR?
19. Write the calibration of fluorimeter & flame photometer?
20. Write the instrumentation and applications DSC?
21. Explain about HPTLC/MS?
22. Write about applications and limitations of Radio immunoassay?

****

LIBRARY

Code No: F-7270/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Main & Backlog) Examination, July 2024
Subject: Pharmaceutical Regulatory Science (Elective - I)

Time: 3 Hours **Max. Marks: 75**

PART-A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Discuss briefly about Purple Book
2. Define the terms (a) WHO (b) CDSCO (c) EMA
3. What is a generic product?
4. What is meant by 'double blind trial'?
5. Give a note on Investigational new drug.
6. What is Phase 3 clinical trial?
7. Define ASEAN common technical documents (ACTD).
8. Mention the different types of DMFs.
9. What are the functions of CDSCO?
10. What is good clinical practice

PART-B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Write a detailed on the following.
    (a) Timeline and types of IND.
    (b) Institutional review board.
12. How to manage and monitor clinical trials.
13. Write about common Technical Document.

PART-C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Compare the documentation requirements of ANDA and NDA submissions.
15. Discuss about various Stages of drug discovery
16. Describe general check list for 21CFR part 11.
17. What is the general procedure for export of pharmaceutical product?
18. Explain the GCP obligations of investigators and sponsers
19. Describe in detail new drug approval process along with its documentation requirements as per USFDA.
20. How innovator drug are different from generics drugs?
21. What is the constitution and purpose of Ethics Committee?
22. Explain the Orange Book features.

******

OU - 1706 OU - 1706

LIBRARY

Code No: E-12332/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII-Semester (PCI) (Main & Backlog) Examination, July / August 2023

Subject: Pharmaceutical regulatory science (Elective-I)

Time: 3 Hours **Max. Marks: 75**

PART-A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. List out the different applications used for approval in EU.
2. Write a note on orange book.
3. Define preclinical study.
4. Write a note on IND.
5. Explain the objectives of regulatory affairs department in pharma industry.
6. What is the importance of DMF?
7. Explain the functions of Japan drug regulatory authority.
8. What are the inclusion criteria for clinical trials?
9. Define a. TGA b. EMEA.
10. Define regulatory affairs.

PART-B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. What are CTD and eCTD? Explain the different modules of CTD in detail.
12. Describe the contents of investigator brochure used in clinical studies.
13. Discuss various stages of drug discovery and drug development process.

PART-C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Discuss the criteria for human volunteer selection in clinical trial.
15. Explain organization and functions of CDSCO.
16. Describe good clinical practice.
17. Explain the changes made to approve NDA.
18. What are the steps involved in application and approval of ANDA?
19. Explain constitution and function of institutional review board.
20. What is independent ethics committee?
21. Explain the management of clinical trials.
22. What is the difference between innovator and generic product?

******

Code No: E-12065/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII Semester (PCI) (Makeup) Examination, November 2022

Subject: Pharmaceutical Regulatory Science (Elective-I)

Time: 3 Hours **Max. Marks: 75**

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. What are the stages of drug discovery and development process?
2. Define : a) Bioequivalence b) Bioavailability
3. Explain the need of non-clinical drug development.
4. Discuss about the supplements to approved NDA/ANDA.
5. Enlist the pharmaceutical products eligible for NDA filing.
6. What are the benefits of CTD?
7. List down the types of DMF.
8. What are the different phases involved in clinical trials?
9. Explain the term "Informed consent".
10. Justify the need of regulations for drug products.

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Discuss the NDA approval process in detail, illustrate with the help of flow diagram.
12. Describe in detail the content of clinical trial protocol.
13. a) Explain the concept of innovator and generic products.
    b) Write a short note on orange book and purple book

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Discuss the different approaches for new drug discovery.
15. Discuss generic drug product development.
16. Describe the organizational structure, working and functions of CDSCO.
17. Explain the modules of common technical document.
18. Elucidate the functions of IRB.
19. Discuss the importance of Good clinical practices
20. Explain the procedure for export of pharmaceutical product.
21. Discuss in detail about the CFR.
22. Elaborate the content of new drug application.

******

Code No. D-8108/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII Semester (PCI) (Main & Backlog) Examination, July 2022

Subject: Pharmaceutical Regulatory Science (Elective-I)

Time: 3 Hours **Max. Marks: 75**

Vaagdevi College of Pharmacy LIBRARY Acc.No: DL

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. What are the stages in the drug development process.
2. Write down the difference between innovator and generics.
3. Name the regulatory authority of India, USA, European Union, Australia.
4. What is the difference between CTD & DMF.
5. What is the importance of the informed consent.
6. Write down the importance of the purple book.
7. Enlist the various guidelines under ICH.
8. Define Pharmacovigilance.
9. Write a note on Code of federal regulation.
10. What are the responsibilities of Institutional review board.

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Explain in detail about NDA approval process.
12. Explain the procedure for the export of pharmaceutical product.
13. Write in detail about the common technical document.

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Describe the purpose of IND and what are the types of IND.
15. Write about the different phases in clinical trials.
16. Define DMF and write down the types of DMF.
17. Give a brief note on pharmacovigilance and safety monitoring in clinical trials.
18. Explain the term organge book and what information does it provide.
19. Explain the regulatory requirement for ANDA approval process.
20. Discuss about the generic drug development.
21. Discuss about the differences between NDA & ANDA data submission.
22. Discuss the elements of clinical trial protocol.

*****

OU - 1706 OU - 1706

Code No: G-13110/PCI

FACULTY OF PHARMACY

B. Pharmacy (PCI) VIII - Semester (Main & Backlog) Examination, July 2025

Subject: Biostatistics & Research Methodology

Time: 3 Hours **Max. Marks: 75**

PART - A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Define the terms Biostatistics& Research.
2. Mention different measures of dispersion.
3. Age of 10 patients from a population of 169 patients is 42,28,28,61,31,23,50,34,32 and 37. Calculate the range.
4. What is meant by hypothesis?
5. Mention different non-parametric tests.
6. What is the need for Research?
7. Mention different phases of clinical trials.
8. What is power of study?
9. What is SEM? Write its importance.
10. What are the advantages of factorial design?

PART - B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Discuss on report writing in research methodology.
12. What is correlation? Write about different types of correlation.
13. Explain the features of SPSS in detail

PART - C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. The relative humidity values in a tablet production department of a pharmaceutical company from Monday to Saturday were recorded as 60,62,65,69,75 and 65. Calculate standard deviation.
15. Explain different types of probability distributions.
16. Write about t-Test with an example.
17. Discuss on design of experiments.
18. Explain the features of MINITAB in brief.

..2

OU - 1706

19. The following figures shows disease count from a region over a span of 6 months. Represent the data by a pie-diagram.

Disease	Disease Count
HIV	17
Malaria	28
Diarrhoea	30
Tuberculosis	25
Influenza	20

20. Write Wilcoxon- Rank Sum Test with an example.
21. Explain 2^2 factorial design.
22. Give informative notes on response surface methodology.

******

OU - 1706 OU - 1706 OU - 1706

Code No: F-7267/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Main & Backlog) Examination, July 2024

Subject: Biostatistics & Research Methodology

Time: 3 Hours **Max. Marks: 75**

PART-A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Define the terms Biostatistics & Research.
2. The absorbance values of aspirin solution obtained by UV- Visible spectrophotometer as 0.273, 0.275, 0.271, 0.274, 0.275, 0.279, 0.278 and 0.281. Calculate the mean absorbance value.
3. Mention applications of regression in Pharmacy.
4. Write the properties of normal distribution.
5. Give different non-parametric tests.
6. What is the need for Research?
7. List out MS EXCEL statistical functions.
8. Write features of SPSS.
9. Mention advantages of factorial design.
10. Give different phase of clinical trials.

PART-B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Explain about report writing in research methodology.
12. Discuss in detail about one way ANOVA with one example.
13. Write the details of response surface methodology.

PART-C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Define sampling. Explain different sampling techniques.
15. The relative humidity in tablet production department of a pharmaceutical manufacturing unit is given below. Calculate the standard deviation in percent relative humidity.

DAY	1	2	3	4	5	6
X	60	62	65	69	75	65

16. Explain the theory of probability.
17. The following figure shows disease count from a region over a period of 1 year. Represent the data by a pie diagram.

DISEASE	COUNT
Jaundice	22
Tuberculosis	18
Typhoid	32
Malaria	15
Dengue	26

..2

OU - 1706

18. What is experimental design? Write its principles.

19. Write notes on MINITAB.

20. Define Plagiarism. Write the types of it.

21. Discuss student t-test in brief.

22. Explain 2^2 factorial design with an example.

****

OU - 1706 OU - 1706 OU - 1706

9/7/24

Women's College of Pharmacy LIBRARY ACC No: Dt:

Code No: F-7195/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Backlog) Examination, March 2024

Subject: Biostatistics & Research Methodology

Time: 3 Hours **Max. Marks: 75**

PART-A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Find the median of the disintegration times of tablets for a data set 1, 4, 8, 3, 5, 7, 2, 10 and 6.
2. Calculate the range for individual series-X: 120,170,240,100, 105, 205, 300, 160, 150, 180.
3. Define the term Probability.
4. What is meant by population?
5. Give different non-parametric tests.
6. What is the need for design of experiments?
7. Mention different types of graphs.
8. Write statistical features of EXCEL.
9. Mention advantages of factorial design.
10. Give different phase of clinical trials.

PART-B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Explain about report writing in research methodology.
12. Write informative notes on (a) Plagiarism (b) Types of sampling.
13. What is SPSS? Write about its models.

PART-C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Discuss about Karl Pearson's coefficient of correlation.
15. Find the standard deviation of incubation period of small pox in 9 patients where it was found to be 15,12,10,15,11,7,9,17 and 14.
16. What is normal distribution? Explain the properties with a suitable example.
17. Write short notes on ANOVA.
18. A quality control analyst finds that on the average the sample passes the test 4 times out of 5. If the sample is tested 4 times, what is the probability of
    (a) Sample passing more than 2 times (b) At least 3 failures
19. Write notes on any one non-parametric test.
20. Discuss about statistical features of MINITAB.
21. Explain designing of a clinical trial.
22. Explain 2^2 factorial design with an example.

OU - 1701

Library

Code No: F-7205/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Backlog) Examination, March 2024
Subject: Advanced instrumentation techniques (Elective-II)

Time: 3 Hours **Max. Marks: 75**

PART-A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. What are the important steps in MS?
2. List the different ionisation techniques in MS.
3. Explain Base peak and molecular ion in MS.
4. Define chemical shift. List the factors affecting chemical shift
5. What is the internal standard in NMR spectroscopy? Justify its selection.
6. What is the principle of TGA?
7. List the important steps in solid phase extraction.
8. Give suitable applications of radioimmunoassay.
9. List the parameters for the calibration of UV Visible spectrophotometer.
10. What is the difference between calibration and validation?

PART-B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Explain the principle of Mass spectrometry. With a labelled diagram, explain MS instrumentation.
12. Explain HPLC calibration process.
13. Explain the principle of LC/MS/MS.

PART-C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. With a neat labelled diagram explain the instrumentation and application of DTA.
15. Classify the ionisation techniques in MS. Explain any two methods in detail.
16. Explain Time of flight and quadrupole mass analysers in MS.
17. What are the difference s between C^{13} and H^{1} NMR spectroscopy?
18. Explain the origin of X-rays. Derive Bragg's equation
19. Explain the phenomena of spin – spin coupling with a suitable example.
20. Explain the principle and procedure involved in liquid-liquid extraction.
21. Write a note on hyphenated techniques. Give suitable examples. What are their advantages? Add a note on interfaces.
22. Explain the principle advantages and applications of RIA.

******

Library

Code No: E-12329/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII-Semester (PCI) (Main & Backlog) Examination, July 2023

Subject: Biostatistics and Research Methodology

Time: 3 Hours Max. Marks: 75

PART-A

Note: Answer all the questions. (10 x 2 = 20 Marks)

RBVRR Women's College of Pharmacy LIBRARY Acc.No: Dt. Hyd-27.

1. Define Null and Alternative hypotheses.
2. Define response surface plot.
3. Write the assumption of the t-test.
4. Explain one-tailed and two-tailed tests.
5. What is the Power of study?
6. Explain α and β errors.
7. Write the application of range. Calculate the range from the data given below:
   15, 18, 12, 16, 27, 19, 10
8. Write the importance of the Standard error of the mean (SEM).
9. What are the advantages of factorial design?
10. Write the applications of the Mann-Whitney U test.

PART-B

Note: Answer any two questions. (2 x 10 = 20 Marks)

11. Write the properties of the binomial distribution. If the 10 coins are tossed 100 times, how many times would you expect 6 coins to fall tail upward?
12. Write the short notes on- (2.5+2.5+3+2M)
    a. Plagiarism
    b. Standard error of regression
    c. Karl Pearson's coefficient of correlation
    d. MINITABS
13. Explain two-way ANOVA with an example.

PART-C

Note: Answer any seven questions. (7 x 5 = 35 Marks)

14. Calculate the mean and standard deviation from the following data of the presence of urea in the blood sample of 105 patients in a hospital.

Range of urea (mg/dl)	0-22	3-25	6-28	9-31	2-34	5-37
No. of patients	8	15	22	9	20	22

15. Explain in detail about observational studies in clinical study design.

...2

16. Write a note on report writing and presentation of data in research methodology.
17. Explain in detail about unpaired t-test with example.
18. Define sampling. Explain different types of sampling techniques.
19. Explain the Kruskal-Walls test with a suitable example
20. Explain the Software used for the clinical trial approach.
21. Explain 2^2 factorial design and write its importance.
22. In a study of diabetic patients, the following readings of fasting blood sugar levels of 130 patients were obtained. Construct a histogram of the following data.

Fasting blood sugar level(mg/dl)	No. of persons
80-85	2
85-90	8
90-95	11
95-100	14
100-105	18
105-110	21
110-115	23
115-120	20
120-125	8
125-130	5

******

LIBRARY Acc.No. Hyd-27

Code No. D-8105/PCI

FACULTY OF PHARMACY

B. Pharmacy VIII - Semester (PCI) (Main & Backlog) Examination, July 2022

Subject: Biostatistics and Research Methodology

Time: 3 Hours **Max. Marks: 75**

PART – A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. Define type-I error.
2. Explain power of study.
3. Write the difference between histogram and bar diagram.
4. Define the term multiple regression.
5. Find the range of the data 9, 7, 21, 32, 18, 24, 26, 29, 39, 25.
6. Find the median of following data: 21, 36, 44, 23, 32, 52, 16.
7. Explain Null hypothesis and Alternative hypothesis.
8. Explain critical value.
9. Write the advantages of Minitab.
10. Write the significance of standard error of mean.

PART – B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. (a) Explain in detail about observational studies in clinical study design.
    (b) Explain in detail about report writing in research methodology.

12. Two groups of rats were injected 0.5 and 1.0 mg of a tranquilizer respectively and the following are the number of seconds it took them to fall asleep.

0.5 mg dose (X)	1.0 mg dose (Y)
8	5
10	8
12	7
14	6
16	5

Use the Mann Whitney's U test at 0.01 level of significance to test the null hypothesis that the difference in dosage have no effect on the length of time it takes to fall asleep.

(Tabulated value at 0.01% is 2.33)

13. Explain in detail about one-way ANOVA with one example.

..2

OU - 1706

PART – C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Define Sampling? Explain sampling techniques.
15. Explain paired t-test in detail.
16. Define Normal distribution and state its properties.
17. Find the standard deviation of incubation period of smallpox in 9 patients where it was found to be 15, 12, 10, 15, 11, 7, 9, 17 and 14.
18. Explain in detail about theory of probability.
19. The following figure shows disease count from a region over a span of 6 months. Represent the data by a pie-diagram.

Disease	Disease Count
HIV	17
Malaria	28
Diarrhoea	30
Tuberculosis	25
Influenza	20

20. Find the coefficient of correlation between the variable X and Y using Karl Pearson's method.
21. Explain 2^2 Factorial Design and write its advantages.
22. Explain optimization techniques in response surface methodology.

* * *

Women's College of Pharmacy LIBRARY Acc.No:..... Dt..... Hyd-27

Code No: 12260/PCI

FACULTY OF PHARMACY

B. Pharmacy - VIII - Semester (PCI) (Main.) Examination, July 2021

Subject: Biostatistics and Research Methodology

Time: 2 Hours **Max. Marks: 75**

Note: Answer Seven questions from Part -A, any One questions from Part- B and any Five questions from Part- C

Part - A (7x3=21 marks)

1. What do you mean by biostatistics? Give its importance in pharmacy
2. Describe the types of dispersion
3. Calculate range for individual series – X : 120 170 240 100 105 205 300 160 150 180
4. What is the significance of probability?
5. Describe the properties of normal distribution
6. What is factorial design?
7. Name the open source graphical user interfaces supported by R.
8. What is observational study? Give an example.
9. What are the various statistical methods used in excel?
10. A random sample of size 100 is taken from the population with standard difference
    5.1 Calculate the standard error of mean

Part - B (1x14=14 marks)

11.a) Explain the applications, merits and demerits of correlation

b) Calculate the Karl person's coefficient of correlation for the following data:

X	7	6	5	4	3	2	1
Y	18	16	14	12	10	6	8

12.a) What is SPSS? Explain the important SPSS models

b) Explain 'Two Tailed test of hypotheses?

13. Two independent samples of 7 and 8 items respectively had the following readings. State, if the two estimates of population variance differ significantly?
(Given the tabulated value = 4.21)

Sample A	10	8	9	13	11	12	9	
Sample B	15	13	14	11	12	10	8	6

Part - C (5x8=40 marks)

14. Discuss the procedure for wilcoxon – signal rank test for one sample
15. What is experimental design? Explain its principles
16. Write short notes on different types of ANOVA
17. What is population? Explain the difference between small sample test and large sample test.

..2

18. Obtain a line of regression of Y on X for the following data

Age in Yrs (X)	66	38	56	42	72	36	63	47	55	45
Blood pressure (Y)	145	124	147	125	160	118	149	128	150	124

19. The average number of phone calls per minute coming between 2pm-4pm is 2.5 Determine the probability that during one particular minute there will be i) 4 or less ii) more than 6 calls.

20. The Height of 10 males of a given locality found to be 70, 67, 62, 68 61, 68, 70, 69, 64, 66 inches. Is it reasonable to believe that the average height is 64 inches? Test at 5% significance level for 9 degree of freedom. (Give t0.05 = 1.83 for 9 d.f)

21. The following figures shows disease count from a region over a span of 1 year. Represent the data by a pie diagram.

DISEASE	COUNT
Jaundice	22
Tuberculosis	18
Typhoid	32
Malaria	15
Dengue	26

22. An average of 5 cars arrives per hour at a restaurant. Assume that the number of cars arriving per hour follows Poisson distribution.
    i) What is the probability that exactly 5 cars will arrive in a given hour?
    ii) What is the probability that at least 3 cars arrive in a given hour?

****