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**AM—04—2024**

**FACULTY OF SCIENCE AND TECHNOLOGY**

**B.Pharm. (Fourth Year) (Eighth Semester) EXAMINATION**

**NOVEMBER/DECEMBER, 2024**

**BIostatistics AND RESEARCH METHODOLOGY**

**BP-801T**

**(Tuesday, 17-12-2024)**

**Time : 2.00 p.m. to 5.00 p.m.**

**Time—3 Hours**

**Maximum Marks—75**

**N.B. :— (i) All questions are compulsory.**

**(ii) Answer to the point only.**

**(iii) Figures to the right indicate full marks.**

**1. Answer the following :**

**2×10=20**

**(a) Define research and biostatistics.**

**(b) Enlist various phases of clinical trials.**

**(c) Compare T-test and ANOVA.**

**(d) List characteristics of good research report.**

**(e) Distinguish between independent and dependent variable.**

**(f) Calculate Mean from the following data :**

**X = 22, 24, 26, 28, 30, 32.**

**(g) Enlist types of graphs.**

**(h) Calculate Median from the following data :**

**X = 26, 27, 29, 32, 34.**

**P.T.O.**

- (i) What is SPSS and Minitab ? Write its importance  
(j) Compare Null hypothesis and Alternate hypothesis.

2. Answer any *two* of the following :

20

- (a) Discuss in brief about report writing.  
(b) Elaborate in detail clinical trial design.  
(c) Explain plagiarism. Write its application and mention measures to avoid plagiarism.

3. Answer any *seven* of the following :

7×5=35

- (a) Explain various types of research.  
(b) Distinguish between parametric and non-parametric tests in detail with example.  
(c) Calculate Mean, Median and Mode from the following data :  
 $X = 10, 12, 14, 16, 18, 20.$   
(d) Elaborate Hypothesis and hypothesis testing.  
(e) Discuss in detail regression analysis.  
(f) Define sample size. Write methods to determine sample size.  
(g) Calculate variance and standard deviation from the following data :

C.I	1—10	11—20	21—30	31—40	41—50
F	2	7	10	3	1

- (h) Compare advantages and disadvantages of randomized control design.  
(i) Define graph. Explain various types of graphs in research tools.

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**AM—08—2024**

**FACULTY OF PHARMACEUTICAL SCIENCE AND TECHNOLOGY**

**B.Pharm. (Eighth Semester) EXAMINATION**

**NOVEMBER/DECEMBER, 2024**

**SOCIAL AND PREVENTIVE PHARMACY**

**BP-802-T**

**(Thursday, 19-12-2024)**

**Time : 2.00 P.m. to 5.00 p.m.**

*Time—3 Hours*

*Maximum Marks—75*

- N.B. :—** (i) All questions are compulsory.  
(ii) Answer to the point only.  
(iii) Figures to the right indicate full marks.

1. Answer the following : 10×2=20
- (a) Define health as per WHO.
  - (b) What is mode of transmission of Ebola infection ?
  - (c) Enlist vaccine name for infants.
  - (d) Which vitamin deficiency causes Beriberi ?
  - (e) Give sign and symptoms of Malaria.
  - (f) Write objectives of national mental health programme.
  - (g) Define drug abuse and drug addiction.
  - (h) Enlist school health related problems.
  - (i) What do you mean by Marasmus ?
  - (j) What are the rich sources of vitamin A ?

P.T.O.

2. Solve any *two* of the following :

2×10

- (a) Write in detail about national health programme and national AIDS control programme.
- (b) Explain role of WHO in Indian national Programme.
- (c) Write notes on :
  - (i) Balanced diet
  - (ii) Nutrition and food.

3. Solve any *seven* of the following :

7×5=35

- (a) Write impact of urbanization on health and diseases.
- (b) Explain national tobacco control programme.
- (c) Write the deficiency disease of the following vitamins :
  - (a) Vitamin C
  - (b) Vitamin A
  - (c) Vitamin B<sub>12</sub>
  - (d) Vitamin B<sub>1</sub>
  - (e) Vitamin B<sub>3</sub>.
- (d) Give objectives, functioning and outcome of national leprosy control programme.
- (e) What is malnutrition ? How can it be prevented ?
- (f) Write functions of PHC.
- (g) Explain universal immunization programme.
- (h) Explain various socio-culture factors related to health and disease.
- (i) Discuss in short pulse polio programme.

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**AM—16—2024**

**FACULTY OF SCIENCE & TECHNOLOGY**

**B.Pharma. (Fourth Year) (Eighth Semester) EXAMINATION**

**NOVEMBER/DECEMBER, 2024**

**PHARMACEUTICAL REGULATORY SCIENCE**

**(Tuesday, 24-12-2024) (BPS04T) Time : 2.00 p.m. to 5.00 p.m.**

**Time—3 Hours**

**Maximum Marks—75**

**N.B. :— (1) All questions are compulsory.**

**(2) Answer to the point only.**

**(3) Figures to the right indicate full marks.**

1. Solve the following : 10×2=20
- (a) What happens if there are more than one ANDAs for a particular drug ?
  - (b) What is therapeutic good ?
  - (c) Give purpose for establishment of ICH.
  - (d) What is common technical document ?
  - (e) Give importance of drug regulatory affairs in pharmaceutical industry.
  - (f) Write in short about CFR.
  - (g) What is exemption period for orphan drug ?
  - (h) Which information is provided by Waxman Hatch Act ?
  - (i) Write two basic principles of ICH.
  - (j) Give objectives of World Health Organisation.

**P.T.O.**

2. Solve any *two* of the following :

2×10=20

- (a) Write ethical considerations in clinical research as per Belmont report.
- (b) Write submission procedure of drug master file.
- (c) Elaborate process of drug discovery and development.

3. Solve any *seven* of the following :

7×5=35

- (a) Elaborate various phases in clinical trials.
- (b) Write a note on 'types of submission subject to eCTD requirement'.
- (c) Write a note on Investigational New Drug.
- (d) What is the purpose of ethical aspects of clinical research ?
- (e) Describe new drug application.
- (f) Write a note on 'Therapeutic Goods Administration'.
- (g) Write functions of drug regulatory affairs department.
- (h) What is DMF ? Add a note on its types.
- (i) Write a note on constitution and functions of WHO.

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**AM—22—2024**

**FACULTY OF SCIENCE & TECHNOLOGY**

**B.Pharma. (Final Year) (Eighth Semester) EXAMINATION**

**NOVEMBER/DECEMBER, 2024**

**COSMETIC SCIENCE**

**(BP-809ET)**

**(Monday, 30-12-2024)** 04/01/2025

**Time : 2.00 p.m. to 5.00 p.m.**

*Time—3 Hours*

*Maximum Marks—75*

*N.B. :—* (1) *All questions are compulsory.*

(2) *Answer to the point only.*

(3) *Figures to the right indicate full marks.*

(4) *Illustrate your answers with neat sketch wherever necessary.*

1. Solve the following :

10×2=20

(a) Give formula for Shampoo.

(b) Enlist common problems associated with teeth and gums.

(c) Define vanishing cream.

(d) What are the causes of Hair fall ?

(e) Define the term 'comedogenic'.

(f) Give ideal characteristics of Shampoos.

(g) Enlist common problems associated with skin.

(h) Draw well labelled diagram of structure of skin.

(i) Define and classify surfactants used in cosmetics.

(j) Give advantages of cold cream.

P.T.O.

2. Solve any *two* of the following : 2×10=20
- (a) Discuss in detail common problems associated with hair and scalp.
  - (b) Explain in detail Deodorants and Antiperspirants.
  - (c) Explain in detail formulation, manufacturing and evaluation of Tooth Paste.
3. Solve any *seven* of the following : 7×5=35
- (a) What are the causes of dry skin ?
  - (b) Give advantages and disadvantages of moisturising creams.
  - (c) Define and classify cosmetics.
  - (d) Give formulation and manufacturing of soaps and syndet bars.
  - (e) Discuss in brief hair growth cycle.
  - (f) Write a note on role of Herbs in cosmetics.
  - (g) Give formula and method of preparation of cold cream.
  - (h) Give principle of corneometer.
  - (i) Discuss in brief excipients used in cosmetics.