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**PP—04—2023**

**FACULTY OF SCIENCE AND TECHNOLOGY**

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

**NOVEMBER/DECEMBER, 2023**

**BIostatistics AND RESEARCH METHODOLOGY**

**(Wednesday, 27-12-2023) (BP 801T) 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.
  - (iv) Scientific calculators are not allowed.

1. Answer the following : 10×2=20
- (a) Define Biostatistics. Give significance in Pharmaceutical Research.
  - (b) What is degree of freedom ?
  - (c) What are types of observational studies ?
  - (d) Define Research.
  - (e) What are the phases of clinical trial ?
  - (f) Define the term probability.
  - (g) Give characteristics of good research report.

P.T.O.

(h) Calculate mean from the following data :

$$X = 14, 16, 18, 20, 24, 26$$

(i) What is the difference between the dependent variable and the independent variable ?

(j) Define normal distribution.

2. Answer any *two* of the following :

20

(a) Explain in brief about report writing.

(b) Write a note on clinical design.

(c) Explain in detail about plagiarism.

3. Answer any *seven* of the following :

7×5=35

(a) Define graph. Explain various types of graphs in research tools.

(b) Differentiate between parametric and non-parametric tests in detail with example.

(c) Write short notes on :

(a) Cohort study

(b) ANOVA

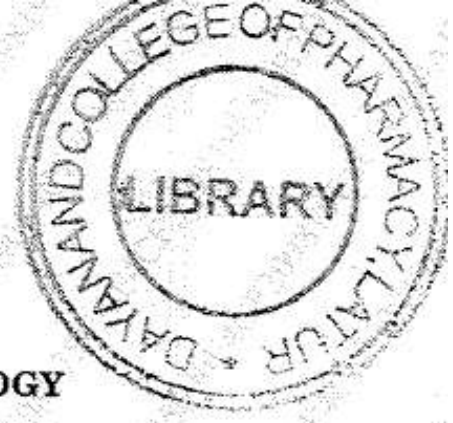
(c) Randomized control trial

(d) Type-I error and type-II error.

- (d) Write a short note on hypothesis and hypothesis testing.
- (e) Describe various types of research.
- (f) What is sample size ? Explain how to determine sample size ?
- (g) What is analysis of variance ? Describe briefly the technique of analysis of variance for one-way and two-way.
- (h) Briefly describe regression analysis.
- (i) Calculate mean, median and mode from the following data :

$$X = 26, 28, 30, 32, 28, 26, 30$$





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**PP—08—2023**

**FACULTY OF SCIENCE AND TECHNOLOGY**

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

**NOVEMBER/DECEMBER, 2023**

**SOCIAL AND PREVENTIVE PHARMACY**

**Paper—(BP-802T)**

**(Friday, 29-12-2023)**

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

**Time—3 Hours**

**Maximum Marks—75**

- N.B. :—**
- (i) All questions are compulsory.
  - (ii) Illustrate your answer with neat sketch wherever necessary.
  - (iii) Figures to the right indicate full marks.

1. Answer the following :

20

- (a) Enlist various health indicators.
- (b) Give different functions of minerals with examples.
- (c) Define drug addiction and drug abuse.
- (d) Write causative agent for Tuberculosis and Leprosy.
- (e) Define Health.
- (f) Give sign and symptoms of Malaria.
- (g) Give objectives of national programme for control of blindness.
- (h) Give objectives of National Family Welfare Programme.
- (i) Define cholera and write its symptoms.
- (j) What is Marasmus ?

P.T.O.

2. Answer any *two* of the following : 2×10=20
- (a) Explain objectives and functions of universal immunization programme.
  - (b) Write a note on national health programme and national AIDS control programme.
  - (c) Give general principles and prevention of diabetes mellitus and malaria.
3. Answer any *seven* of the following : 7×5=35
- (a) Define proteins. Write about protein deficiency disease.
  - (b) Write a note on personal hygiene with its importance.
  - (c) Explain about national tobacco control programme.
  - (d) Explain various socio-culture factors related to health and disease.
  - (e) Write the deficiency disease of the following vitamins :
    - (i) Vitamin C
    - (ii) Vitamin A
    - (iii) Vitamin B<sub>12</sub>
    - (iv) Vitamin B<sub>1</sub>
    - (v) Vitamin B<sub>3</sub>.

- (f) Write a note on National Leprosy Control Programme.
- (g) Write about functions of primary healthcare centres.
- (h) Write on management of hypertension.
- (i) Explain malnutrition and its preventive measures.







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**PP—16—2023**

**FACULTY OF PHARMACEUTICAL SCIENCE AND TECHNOLOGY**

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

**JANUARY, 2024**

**PHARMACEUTICAL REGULATORY SCIENCE**

**Paper—(BP-804ET)**

**(Wednesday, 03-01-2024)**

**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. Solve the following : 2×10=20
- (a) What is purple and orange book ?
  - (b) If inventor invents new dosage form for existing (old) drug, then which kind of application is to be filed to get approval ? Why ?
  - (c) Mention regulatory bodies in India and Japan.
  - (d) Discuss difference between innovator and generic product.
  - (e) What is objective of post marketing surveillance ?
  - (f) Enlist various types of INDs.
  - (g) Give purpose for establishment of ICH.
  - (h) Give importance of drug regulatory affairs in pharmaceutical industry.
  - (i) Write in short about CFR.
  - (j) What is exemption period for orphan drug ?

P.T.O.

2. Solve any *two* of the following :

10×2=20

- (a) Elaborate process of drug discovery and development.
- (b) Give the importance and procedure to obtain informed consent in clinical trials.
- (c) Give the regulations governing exports of pharmaceuticals from India.

3. Solve any *seven* of the following :

5×7=35

- (a) What is DMF ? Add a note on its types.
- (b) Write a note on constitution and functions of WHO.
- (c) Describe in brief about CTD.
- (d) How is a proper clinical trial protocol developed ?
- (e) What is Hatch Waxman Act ? Give the process of filing ANDA.
- (f) Give the composition and functions of IRB.
- (g) Write a note on hierarchical structure and functions of CDSCO and USFDA.
- (h) Describe roles and responsibilities of principal investigator in clinical trial.
- (i) Elaborate various phases in clinical trials.



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**PP—22—2023**

**FACULTY OF SCIENCE AND TECHNOLOGY**

**B.Pharm. (Final Year) (VIII Semester) EXAMINATION**

**JANUARY, 2024**

**COSMETIC SCIENCE**

**Paper BP809ET**

**(Monday, 8-1-2024)**

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

*Time—Three 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.*

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

1. Solve the following :

10×2=20

- (a) Define Cosmetics.
- (b) Draw well labelled diagram of structure of skin.
- (c) Give structure of hair.
- (d) Give functions of skin.
- (e) Define Deodorants and Anti-perspirants.
- (f) Define the term "Comedogenic".
- (g) What are ideal properties of vanishing creams ?
- (h) Enlist different excipients used in cosmetics.
- (i) Mention common problems of oral cavity.
- (j) Give ideal properties of shampoos.

P.T.O.

2. Solve any *two* of the following : 2×10=20
- (a) Give formulation, manufacturing and evaluation of Soap and Syndet bars.
  - (b) Discuss in detail common problems associated with hair and scalp.
  - (c) Describe in detail formulation, manufacturing and evaluation of shampoos.
3. Solve any *seven* of the following : 7×5=35
- (a) Describe in brief formulation of Para-phenylene diamine based hair dye.
  - (b) Give classification of sunscreens.
  - (c) Describe in brief role of aloe and turmeric in skin care cosmetics.
  - (d) Give advantages and disadvantages of cold cream.
  - (e) Give principles of sebumeter.
  - (f) Discuss role of Amla and Heena in hair care cosmetics.
  - (g) Give formulation and manufacturing of mouthwashes.
  - (h) Describe common problems associated with skin.
  - (i) Give classification of cosmetics along with marketed brands.