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SP—04—2024

FACULTY OF SCIENCE AND TECHNOLOGY

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

APRIL/MAY, 2024

BIostatistics AND RESEARCH METHODOLOGY

(Wednesday, 15-05-2024) (BP801T) Time : 2.00 p.m. to 5.00 p.m.

Time—Three Hours

Maximum Marks—75

Note :— (i) All questions are compulsory.

(ii) Figures to the right indicate full marks.

(iii) Write your answers to the point only.

1. Answer the following : 20

(a) Define biostatistics. Write briefly how biostatistics is significant in pharmaceutical research.

(b) Find mode of the following data :

$X = 3, 4, 3, 6, 6, 8, 10, 11, 12, 11.$

(c) Define harmonic mean and give its symbolic expression.

(d) Define the term correlation and regression.

P.T.O.

- (e) What is histogram ?
- (f) Compare Cohort and case control study.
- (g) State the various objectives of research.
- (h) Mention different types of report.
- (i) State the reasons why sampling is used in the context of research studies.
- (j) Calculate Geometric Mean (GM) of the numbers $X = 3, 7$ and 9 .

2. Answer any *two* of the following : 20

- (a) What is sample size ? Explain, how to determine sample size ?
- (b) Explain in brief about sampling.
- (c) Calculate the following :
 - (i) Mean
 - (ii) Median
 - (iii) Standard deviation
 - (iv) Variance
 - (v) Coefficient of variance and
 - (vi) Range

from the following data :

$X = 70, 78, 80, 84, 88, 92, 94$

3. Answer any *seven* of the following :

7×5=35

(a) Summarize the following terms in short :

(i) Cohort study

(ii) Randomized control trial

(iii) ANOVA

(iv) T-test.

(b) Calculate mean, median and mode from the following data :

$$X = 12, 14, 16, 18, 20, 24$$

(c) Elaborate in detail observational studies.

(d) Write a note on research protocol.

(e) Explain in detail the measure of dispersion range, mean deviation and standard deviation variance.

(f) Explain the meaning and significance of research report and narrate the various steps involved in writing such a report.

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

(h) Write about hypothesis testing in simple and multiple regression models.

(i) Elaborate in detail clinical trial design.

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SP—08—2024

FACULTY OF PHARMACY

B.Pharm. (Eighth Semester) EXAMINATION

APRIL/MAY, 2024

SOCIAL AND PREVENTIVE PHARMACY

(Friday, 17-05-2024)

(BP802T)

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

Time—Three Hours

Maximum Marks—75

Note :— (i) All questions are compulsory.

(ii) Draw neat labelled diagram wherever necessary.

(iii) Answer to the point only.

1. Solve the following questions :

10×2=20

(a) Define drug addiction and drug abuse.

(b) Write objectives of national health intervention programme for mother and child.

(c) Write sign and symptoms of Ebola virus diseases.

(d) Write sign and symptoms of diabetes mellitus.

P.T.O.

- (e) Define vitamin. Write about types of vitamins.
- (f) Define the term hygiene and health.
- (g) Enlist the vaccines name for infants.
- (h) Enlist different stages of hypertension.
- (i) What is universal immunization programme ?
- (j) Enlist various health indicators.
2. Answer the following (any two) : 2×10=20
- (a) Explain role of WHO in Indian National Programme.
- (b) Discuss in short about PHC (Primary Health Centre).
- (c) Write about preventive medicine. Discuss national malaria prevention program along with management of malaria patient.
3. Answer the following (any seven) : 7×5=35
- (a) Write about national leprosy control programme.
- (b) Explain the national family welfare programme.
- (c) Explain malnutrition and its preventive measures.
- (d) Explain pulse polio programme.

- (e) Discuss impact of urbanization on health and diseases.
- (f) Discuss about balance diet and its importance.
- (g) Write health promotion and education in school.
- (h) Explain guidelines for cholera control and prevention.
- (i) Explain National Tobacco Control Programme.

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SP—16—2024

FACULTY OF SCIENCE AND TECHNOLOGY

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

APRIL/MAY, 2024

PHARMACEUTICAL REGULATORY SCIENCE

(Wednesday, 22-05-2024) (BP804T) Time : 2.00 p.m. to 5.00 p.m.

Time—Three Hours

Maximum Marks—75

Note :— (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) Discuss difference between innovator and generic product.
- (b) What is objective of post marketing surveillance ?
- (c) What is lead identification ?
- (d) Mention regulatory bodies in Canada and Australia
- (e) Define good clinical practice.

P.T.O.

- (f) Give types of ANDA filing.
- (g) What happens if there are more than one ANDAs for a particular drug ?
- (h) Define independent ethical committee.
- (i) Enlist various types of INDs.
- (j) Give purpose for establishment of ICH.

2. Solve any *two* of the following : 2×10=20

- (a) Give the regulations governing exports of pharmaceuticals from India.
- (b) Write functions of Indian Pharmacopoeia Commission.
- (c) Elaborate the process of filing NDA application.

3. Solve any *seven* of the following : 7×5=35

- (a) Describe approval procedure of new drug application.
- (b) Write importance of drug regulatory affairs.
- (c) What is the difference between drug safety and pharmacovigilance ?
- (d) Write ethic principle of essentiality in clinical research.
- (e) Give functions of state drug control authority in India.

- (f) Write a note on 'ANDA-growth opportunities to generic pharmaceutical companies.
- (g) Give the composition and functions of IRB.
- (h) Write a note on hierarchical structure and functions of CDSCO and USFDA.
- (i) Describe roles and responsibilities of principal investigator in clinical trial.

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SP—22—2024

FACULTY OF SCIENCE AND TECHNOLOGY

B. Pharm. (Final Year) (Eighth Semester) EXAMINATION

APRIL/MAY, 2024

COSMETIC SCIENCE

Paper BP-809-ET

(Tuesday, 28-05-2024)

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

Time—Three Hours

Maximum Marks—75

Note :— (i) All questions are compulsory.

(ii) Answer to the point only.

(iii) Figures to the right indicate full marks.

(iv) Illustrate your answer with neat sketch wherever necessary.

1. Solve the following :

10×2=20

(a) Define cosmetics and enlist any *four* marketed brands.

(b) Define Deodorants and antiperspirants.

(c) What are the causes of dry skin ?

P.T.O.

- (d) Give formula for Toothpaste.
- (e) Mention different excipients used in cosmetics.
- (f) Give ideal properties of shampoos.
- (g) Define the term dermatitis.
- (h) Give the structure of hair.
- (i) Enlist common problems of oral cavity.
- (j) Give structure of skin.

2. Solve any *two* of the following : 2×10=20

- (a) Give formulation, manufacturing and evaluation of soaps and syndet bars.
- (b) Discuss in detail about cosmetic problems associated with skin.
- (c) Explain in detail about formulation, manufacturing and evaluation of shampoos.

3. Solve any *seven* of the following : 7×5=35

- (a) Give classification of sunscreens.
- (b) Give advantages and disadvantages of cold creams.
- (c) Give formula and method of preparation of vanishing creams.

- (d) Discuss in brief hair growth cycle.
- (e) Describe in brief role of Aloe and Turmeric in skin care cosmetics.
- (f) Give principle of sebumeter.
- (g) Discuss in brief about role of neem and clove in oral care cosmetics.
- (h) Discuss in brief evaluation tests for toothpaste.
- (i) Write in brief about para-phenylene diamine based hair dye.