Course: B. Pharmacy   Semester: VIII
Subject Name: Biostatistics and Research Methodology   Subject Code: BP801T
Max Marks: 75   Date: 25-06-2024   Duration: 3 Hr.

Instructions to the Students:
1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

Q.1.	Objective Type Questions (Answer All the Questions)	(10 X 2) = 20

i) Define Biostatistics & give its application in medical science.

ii) Enlist different Parametric & Non parametric test used for hypothesis testing in research.

iii) Differentiate between Central Composite Design (CCD) & Box-Behnken Design (BBD) in Design of Experiment.

iv) Define Range & Standard Deviation.

v) Write different properties of Normal Distribution Curve.

vi) Explain Type I & Type II errors in Hypothesis testing.

vii) Mention different values of correlation coefficient (r) to be interpreted as Very high, High, Moderate and Slight correlation.

viii) What is Simple Random Sampling? Give examples.

ix) Find the Median from data of tablet weights in mg as 110, 95, 102, 111, 99, 100.

x) Give differences between Null Hypothesis and Alternative hypothesis

Q.2.	Long Answers (Answer 2 out of 3)	(10 X 2) = 20

i) Discuss about structure & content of research report. Describe different techniques used for presentation of data in research report.

ii) What is Discrete Probability Distribution? Explain in brief about Binomial Distribution & Poisson Distribution.

iii) Explain Karl Pearson Coefficient Correlation. Calculate the coefficient of correlation between sale of two competitive pharmaceutical products.

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Product A (Lakh)	65	40	35	75	63	80	35	20	85	65	55	33
Product B (Lakh)	30	55	68	28	76	25	80	85	20	35	45	65

Q.3.	Short Answers (Answer 7 out of 9)	(5 X 7) = 35

i) What is Historical Research Design? Describe its different steps.

ii) How Clinical research can be classified? Explain with examples

iii) Why research design is needed? Comment on various stages of research design.

iv) Describe in detail about Non-parametric Kruskal-Walli's test & Wilcoxon Rank Sum test.

v) Determine Mode of following data by algebric formula & represent it on graph.

Profit (Lakh)	5-10	10-15	15-20	20-25	25-30	30-35
No. of days	8	18	27	21	15	11

vi) What is Plagiarism? Write about its different types.

vii) Discuss the importance of SPSS, MINITAB and R-Software used for statistical analysis in research.

viii) What is Ogive? Determine less than & more than Ogive of following data & represent graphically.

Marks	0-10	10-20	20-30	30-40	40-50	50-60
Students	4	7	9	10	15	22

ix) Write in brief about Graphical presentation of data as Histogram, Pie chart and Response surface plot.

*** END OF THE PAPER ***

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE
Regular/Supplementary Summer Examination – 2024

Course: B. Pharmacy

Subject Name: Social And Preventive Pharmacy   Semester: VIII

Max Marks: 75   Subject Code: BP802T

Date: 27-06-2024   Duration: 3 Hr.

Instructions to the Students:
1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

Q.1.	Objective Type Questions (Answer All the Questions)	(10 X 2) = 20
i)	Define the term Nutrition and Health	
ii)	Explain Balanced diet.	
iii)	Write Functions of PHC.	
iv)	What is Health promotion?	
v)	Enlist the characteristics of good mental wellbeing.	
vi)	Write full form of SARS & RNTCP.	
vii)	Define the term Prevention and Preventive medicine.	
viii)	Name the causative agent of SARS.	
ix)	Write general principle for control and prevention of cholera.	
x)	Enlist socio-cultural factors related to health & disease.	

Q.2.	Long Answers (Answer 2 out of 3)	(10 X 2) = 20
i)	What are vitamins? Classify vitamins. Write importance, RDA and source of its.	
ii)	Define communicable and non-communicable disease with examples. Explain any one disease from each category.	
iii)	Explain objective functioning, strategy, outcome & role of pharmacist for Pulse polio programme.	

Q.3.	Short Answers (Answer 7 out of 9)	(5 X 7) = 35
i)	What are the social causes of diseases and social problems of the sick?	
ii)	Explain impact of poverty on health.	
iii)	Brief on National tobacco control programme	
iv)	How can be rural sanitation improved?	
v)	Describe Universal immunization programme	
vi)	Write note on drug addiction and drug substance abuse.	
vii)	Explain National mental health program.	
viii)	What is personal hygiene? How to maintain personal hygiene?	
ix)	What are the impact of urbanization on health and disease,	

*** END OF THE PAPER ***

The grid and the borders of the table will be hidden before final printing.

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE
Regular/Supplementary Summer Examination – 2024

Course: B. Pharmacy
Subject Name: Pharma Marketing Management
Max Marks: 75
Date:19-06-2024

Semester:VIII
Subject Code: BP803ET
Duration: 3 Hr.

Instructions to the Students:
1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

Q.1.	Objective Type Questions (Answer All the Questions)	(10 X 2) = 20
i)	Define Marketing and Writes its importance.	
ii)	What are the advantages of market segmentation?	
iii)	Define product with example	
iv)	List out function of wholesaler.	
v)	Define advertisement & writes its objectives.	
vi)	Differentiate between marketing and selling.	
vii)	Define OTC Concept.	
viii)	Write an advantages of hospital pharmacy as a retail outlet.	
ix)	Write the concept of generic and branded pharma product.	
x)	Write the importance of industrial marketing.	

Q.2.	Long Answers (Answer 2 out of 3)	(10 X 2) = 20
i)	Write a note on product branding .Explain the concept of product management in Pharmaceutical industry.	
ii)	What is pharmaceutical marketing Channels? explain various channels	
iii)	Write a note on motivation and prescribing habit of the physician.	

Q.3.	Short Answers (Answer 7 out of 9)	(5 X 7) = 35
i)	What are the different online promotional technique for OTC product?	
ii)	Write a short note on DPCO.	
iii)	Explain the function of advertisement.	
iv)	Write a note on medical exhibition.	
v)	Write a note on various factors of marketing environment.	
vi)	Explain PLC	
vii)	Write a note PSR.	
viii)	Explain new product decision with its importance.	
ix)	Write a note on vertical and horizontal marketing.	

*** END OF THE PAPER ***

The grid and the borders of the table will be hidden before final printing.

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE
Regular/Supplementary Summer Examination – 2024

Semester: VIII

Course: B. Pharmacy

Subject Name: Pharmaceutical Regulatory Science

Subject Code: BP804ET

Date: 21-06-2024

Duration: 3 Hr.

Max Marks: 75

Instructions to the Students:
1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

Q.1. Objective Type Questions (Answer All the Questions) (10 X 2) = 20

i) State the role of US-FDA

ii) Name the regulatory authorities of UK, South Africa, EU and Australia.

iii) Write down the objectives of CDSCO.

iv) Enlist modules of CTD.

v) Give Constitution of IRB.

vi) Give examples for brand and the respective generic products.

vii) Briefly elaborate process of DMF review.

viii) Enlist the benefits of eCTD.

ix) Write responsibilities of investigator in clinical trials in brief.

x) Difference between NDA and ANDA.

Q.2. Long Answers (Answer 2 out of 3) (10 X 2) = 20

i) Describe in drug discovery process.

ii) Explain the organization and functions of CDSCO.

iii) How will you export pharmaceuticals & what are the required technical documents?

Q.3. Short Answers (Answer 7 out of 9) (5 X 7) = 35

i) Describe various steps involve in generic product development.

ii) Write the importance of 21 CFR.

iii) What are the salient features of purple book?

iv) Define clinical trial and explain role of Sponsor.

v) What is ethics behind informed consent process?

vi) Explain orange book.

vii) Write different modules of ACTD.

viii) Elaborate various phases of clinical testing.

ix) Describe stages in development of generic formulations.

*** END OF THE PAPER ***