

M.Pharm. 1st Sem (ASTU) - Reg. 29/11/14

Total No. of printed pages = 4

PY 134103

Roll No. of candidate

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M. Pharm 1st Semester End-Term Examination

**PHARMACEUTICAL PROJECT
METHODOLOGY AND BIO-STATISTICS**

Full Marks – 100 Pass Marks – 35 Time – Three hours

The figures in the margin indicate full marks for the questions.

Question Nos. 1 and 6 are compulsory.

Answer *eight* questions taking *four* from each section.

SECTION – A

1. Short questions : 2×7=14

(a) What is the purpose and objective of Research ?

(b) Why literature survey is essential in Research ?

[Turn over

- (c) What are the major sources used for literature survey ?
- (d) Define the term Skewness and Kurtosis.
- (e) Differentiate between Survey and Experiment.
- (f) What are the techniques of documentation?
- (g) Explain the importance of documentation.
2. (a) Write a brief note on industry-institute interaction.
- (b) What are the different parts of a Research paper ? $7+5=12$
3. (a) What do you mean by 'clinical trial' ? Describe different phases of clinical trial.
- (b) Explain the working schedule of Contract Research Organization while performing clinical trial. $6+6=12$
4. Explain in detail the various methods of data collection. What are the characteristics and major phases involved in case study method. Write in brief the advantages of case study method. $5+4+3=12$

5. What do you mean by Research ? What is the purpose and types of Research ? How to prepare a Research Proposal for historical research ? Write in detail. $2+6+4=12$

SECTION - B

6. Short questions : $2 \times 7 = 14$

(a) What do you mean by cost-benefit analysis?

(b) What is regression coefficient ?

(c) Importance of I.I.P.C.

(d) What is standard deviation ?

(e) Benefits of visual aid and poster presentation.

(f) Why references are given in the research thesis ?

(g) What do you mean by Keywords of a research paper writing ?

7. (a) Define mean, median and mode.

(b) Write in detail about Students' t-test ?

$$4\frac{1}{2} + 7\frac{1}{2} = 12$$

8. Write notes on any *two* : $6 \times 2 = 12$

- (i) Chi-square test.
- (ii) Analysis of variance (ANOVA).
- (iii) Concept of probability distribution.

9. Discuss in brief the types of different skills possesses by a presenter to deliver an oral presentation. 12

10. (a) The following table gives the number of accidents that took place in Delhi Road during various days of the week.

Apply Chi-square test if the accidents are uniformly distributed over the week.

Days	Mon	Tues	Wed	Thr	Fri	Sat
No. of accidents	12	14	16	10	18	11

(b) The scores of two batsman A and B in 10 matches are given below :

A \rightarrow 38, 32, 40, 15, 35, 42, 48, 50, 30, 45

B \rightarrow 30, 34, 10, 20, 36, 12, 15, 40, 45, 50

Determine who is more consistent ?

$6 + 6 = 12$