

(OLD SCHEME)

Reg. No:

**Second Year B.Pharm Degree Supplementary Examinations
December 2017
Mathematics, Biostatistics & Computer Applications
(2010 SCHEME)**

Time: 3 Hours

Total Marks: 100

- Answer all Questions.
- Use ordinary calculators.
- Write section A and section B in separate answer books(32 Pages).
Do not mix up questions from section A and section B.

QP CODE: 205006 **Section A** –Mathematics & Biostatistics Marks: **50**

Essay

(1x10=10)

1. Calculate mean, median and mode of the following data:

Age	0-6	6-12	12-18	18-24	24-30	30-36	36-42
Frequency	6	11	25	20	15	18	5

Short notes

(8x5=40)

2. Find the derivative with respect to x of the following: $x^2 \sin^{-1}x$

3. Differentiate $\frac{1-x^2}{1+x^2}$ with respect to x

4. Evaluate $\int x^3 e^{x^2} dx$

5. Solve: $x \frac{dy}{dx} = y(\log y - \log x + 1)$

6. Solve the equation $\frac{dy}{dx} + y \cot x = \cos x$

7. Find the Laplace transform of $L[t^2 e^{-2t}]$

8. The mean of two samples of sizes 50 and 100 respectively are 54.1 and 50.3 and their standard deviations are 8 and 7 respectively. Obtain the standard deviation for the combined group.

9. The merits and limitations of measures of central tendency.

P.T.O

QP CODE: 208006 **Section B** –Computer Applications

Marks: **50**

Essay

(2x10=20)

1. Discuss on computer software with examples.
2. Explain the different types of programming languages.

Short notes

(6x5=30)

3. System software
4. What are the advantages of assembly language.
5. Computer memory
6. What are wireless networks.
7. Storage and retrieval of medication history.
8. What are the services offered by drug and poison information services.
