

(OLD SCHEME)

Reg. No:

Second Year B.Pharm Degree Supplementary Examinations July 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. Find standard deviation and coefficient of standard deviation for the given data

Class Interval	1-10	11-20	21-30	31-40	41-50	51-60
Frequency	3	16	26	31	16	8

Short notes

(8x5=40)

2. Find $\frac{dy}{dx}$ if $2x^2 - 3xy + 4y^2 = 1$
3. Differentiate the following w.r.t. x • $\sin^2 x$ • $\cos(4x^2)$
4. Evaluate $\int x^2 \cos 2x dx$
5. Solve the equation : $(e^y + 1)\cos x dx + e^y \sin x dy = 0$
6. Solve the equation : $x \frac{dy}{dx} + \frac{y^2}{x} = y$
7. Find the value of $L\{\cos 3t \sin 2t\}$
8. Find Quartile deviation and coefficient of quartile deviation for the given data and also compute the middle quartile:

Class Interval	1-10	11-20	21-30	31-40	41-50	51-60
Frequency	3	16	26	31	16	8

9. The incidence of an occupational disease in an industry is such that the workers have 25% chances of suffering from it. What is the probability that out of 5 workers, at the most two contract that disease.

P.T.O

QP CODE: 208006

Section B –Computer Applications

Marks: **50**

Essay

(2x10=20)

1. Describe in detail the drug design and development.
2. Discuss the development of modern computing devices and their use.

Short notes

(6x5=30)

3. What are the uses of plotters.
4. Email and newsgroups
5. Types of operating systems.
6. Why are compilers and interpreters are used in computer programming.
7. RDBMS.
8. Community and clinical pharmacy.
