

**Second Year B.Pharm Degree Supplementary Examinations**  
**December 2018**

**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 (10)**

1. Calculate the mean, median and mode for the following frequency distribution

CI	15 – 25	25 – 35	35 – 45	45 – 55	55 – 65	65-75	75 – 85
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f	14	11	19	14	16	11	13
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**Short notes (8x5=40)**

2. Pie diagram with an example
3. Cumulative frequency curves with respective diagrams

4. Differentiate  $y = \frac{x^2 + 1}{x^2 - 1}$

5. Integrate  $\int xe^{2x} dx$

6. Evaluate  $\int_0^{\frac{\pi}{2}} \frac{\sqrt{\sin x}}{\sqrt{\sin x} + \sqrt{\cos x}} dx$

7. Solve  $(D^2 + 3D + 2) y = e^{4x}$

8. Find the Laplace transform of  $L \left( e^t + \frac{1}{e^t} \right)^2$

9. Find the Laplace transform of  $L [tsin3t]$

**QP CODE: 208006 Section B –Computer Applications** **Marks: 50**

**Essay** **(2x10=20)**

1. Describe the various types of input and output devices
2. Explain the types of modern computing devices and its advantages

**Short notes** **(6x5=30)**

3. Assembly language
4. Advantages of internet usage in pharmacy field
5. RDBMS
6. Brief about any two secondary storage devices
7. Office software
8. Brief computer network

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