Second Year B.Pharm Degree Examinations - October 2013

MATHEMATICS, BIOSTATISTICS & COMPUTER APPLICATIONS

Time: 3 Hours   **Total Marks: 100**

- Answer all Questions.
- Use ordinary calculators.
- Write section A and section B in separate answer books. 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 the mean, median and mode for the following frequency distribution

$C.I$	0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40
F	12	14	11	19	13	12	10	15

Short notes   **(8x5=40)**

2. Evaluate $\int_0^{\frac{\pi}{2}} \frac{a\sin x + b\cos x \, dx}{\sin x + \cos x}$

3. State the properties of normal distribution

4. Find $\frac{dy}{dx}$ if x = $\frac{at}{1+t^2}$, y = $\frac{at^2}{1+t^2}$,

5. Mention the uses of diagrammatic representation of data

6. Solve L(costcos2t)

7. Calculate the co-efficient of variation for the following data
   11,12,15,14,13,14,10,12,13,11.

8. Distinguish between correlation and regression

9. Solve $(D^2 - 2D + 1)y = 3x$

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

Essay   **(2x10=20)**

1. Elucidate various types of softwares

2. Describe the various types of programming languages

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

3. Explain how computer memory works

4. Differentiate internet and intranet

5. Point out the uses of virtual library

6. Search engines and servers

7. Database management system

8. Mention the uses of wide area network (WAN)

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