Subject Code: B13102/R13

I B. Pharmacy I Semester Supplementary Examinations August - 2015

REMEDIAL MATHEMATICS-I

Time: 3 hours **Max. Marks: 70**

Question Paper Consists of **Part-A** and **Part-B**
Answering the question in **Part-A** is Compulsory,
Three Questions should be answered from **Part-B**

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PART-A

1.(a) Define matrix?
(b) Define continuity?
(c) Write the formula for area of triangle?
(d) Find the derivative of y^2 w.r.to x?
(e) Define the order and degree of the differential equation?
(f) Define permutation and combination?

[4+4+3+3+4+4]

PART – B

2.(a) Find how many elements of the G.P 1, 3, 9. . . . . will be 9841?
(b) Solve the differential equation (1+x) y dx + (1+y) x dy = 0?

[8+8]

3.(a) If tan A= $\frac{3}{5}$ find the values of sin2A, cos2A, tan2A.
(b) Derive the derivative of $\cos hx$

[8+8]

4.(a) Evaluate $\int xe^{2x}dx$
(b) Solve the system of equations $x - 10y = 4;\quad 2x + y = 8$ by using Crammer's rule?

[8+8]

5.(a) Find the derivative of $\log x$
(b) A flagstaff stands upon the top of a building. At a distance of 40m, the angles of elevation of the tops of the flagstaff and building are 60^0 and 30^0. Find the length of the flagstaff.

[8+8]

6.(a) Reslove $\frac{2x+3}{(x+3)(x+1)}$ into partial fractions.
(b) Evaluate $\int \sin ax\ dx$

[8+8]

7.(a) Form the differential equation to represent the family of curves
y = A cos x + B sin x?
(b) Find the value of k for which the equation $12x^2-10xy+2y^2+14x-5y+k=0$ represents two straight lines. Find the point of intersection and an angle between them.

[8+8]

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