Registration no: [   ]

MPHARM
M.PH2A.1

2nd Sem Back Examination – 2015-16
ADVANCED PHYSICAL PHARMACEUTICS
Q.CODE:W984x
Time: 3 Hours
Max marks: 70

Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1   Answer the following questions: (2x10)
a)   What do you mean by solid state manipulation?

b)   What do you mean by cosolvency?

c)   For any chemical reaction, the order is always higher than molecularity. True or False, explain

d)   Define Fick's second law of diffusion.

e)   What is Centrifugal method for stability testing?

f)   Name the different types of dissolution models.

g)   What do you mean by micellar solubilisation?

h)   Explain the method of stabilisation for drug degradation by hydrolysis.

i)   What do you mean by expiration date?

j)   What is DSC (Differential scanning calorimeter) and its use?

Q2   Explain the prediction of shelf life by accelerated stability testing with its limitation.   (10)

Q3   Explain the methods of improving the solubility of drug by using surfactants and inclusion compounds citing suitable example.   (10)

Q4   Describe in details about the different properties of polymers and write the various types of polymer used in pharmaceutical formulation.   (10)

Q5   What are the techniques for measurement of IVIVC? Explain various level of IVIVC.   (10)

Q6   Describe in detail about stability testing protocol and its application in pharmacy.   (10)

Q7   Write briefly   (5×2)
   (a) Polymorphism
   (b) Flow properties of powders

Q8   Discuss about   (5x2)
   a) Freeze thaw method of stability testing
   b) In vitro sink condition