Registration No : | | | | | | | | | | |

Total Number of Pages : 01 **M.Pharm**
M.PH2C.4

2nd Semester Regular / Back Examination 2018-19
ADVANCED PHARMACEUTICAL ANALYSIS-II
BRANCH : ANALYSIS & QUALITY ASSURANCE
Time : 3 Hours
Max Marks : 70
Q.CODE : F140

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 :** **(2 x 10)**

a) How the drugs containing primary aromatic amines can be analysed?
b) Why IR spectroscopy is also called as finger print analyzer of pharmaceuticals?
c) State the Bragg's Law.
d) Write the instrumental components of ESR spectrometer.
e) Determine the content of Metformin in tablets as per I.P. using a suitable analytical technique.
f) How can you analyze tetracycline as per I.P.?
g) State the full name of PDAB.
h) How Vit-A can be analyzed as per I.P.?
i) Write the chemical name of Folin's reagent.
j) State the benefits of using MS in structural elucidation of phytopharmaceuticals.

Q2 **a)** Illustrate the typical chemical reactions of some drugs utilizing MBTH reagent. **(5)**
b) Explain the principle and procedure involved in analysis of drugs using Gibb's reagent. **(5)**

Q3 **a)** Illustrate the various steps involved in interpretation of IR spectra of pharmaceuticals. **(5)**
b) Analyze the samples of any two CVS drugs as per I.P. **(5)**

Q4 **a)** What are the various similarities and differences between PDAB & PDAC? **(5)**
b) Design and illustrate the typical workflow for analysis of drugs using oxidation followed by complexation. **(5)**

Q5 **a)** Illustrate the mechanism of reaction involved in diazotization followed by coupling of drugs. **(5)**
b) Explain the principle and instrumentation of scintillation counter. **(5)**

Q6 Discuss the interpretation of spectral data of H1 NMR and C13 NMR. **(10)**

Q7 Describe the principle, instrumentation and applications of Inductively coupled plasma atomic emission spectroscopy **(10)**

Q8 **Write short answer on any TWO :** **(5 x 2)**

a) Compare the principles of X-ray diffraction and X-ray fluorescence spectroscopy.
b) Examine the applicability of FC reagent for various pharmaceuticals.
c) Discuss the principle of ESR spectroscopy.