

MASTER OF PHARMACY EXAMINATION, 2017  
Ref. No. EX/PG/PHAR/T/112C/29/2017 Dt:25/10/2016  
(1st year, 1<sup>st</sup> sem)  
Pharmacology - I

Time: Three Hours

Full Marks: 100

Answer all parts of a question and group in one place.  
Answer any five questions taking at least one from each group.

GROUP - A

1) (i) Clearly mention the purpose of the following components of Flow Cytometry:

(a) Dichoric Mirror, (b) Forward Scattering and Side Scattering Detectors,

(c) Fluorescence detector, (d) Use of sheath fluid.

(ii) With the help of a schematic diagram explain the working principle for FACS.

(iii) Comment on Asymmetric and Symmetric cell division in context to Stem Cell study.

(4X3)+4+4

2) (i) Comment on the following keeping in view developmental Regenerative medicine:

(a) Importance of Oocyte, (b) Embryonic and Resident stem cells, (c) Issues related to incidence of Teratoma, (d) Clinical approaches for management of Parkinsonism.

(ii) Explain the graphical interpretation of a standard RT-PCR result.

(iii) Comment on the suitability of Base pair length and Nature of Reporter Dye in the design of Probe in RT-PCR.

(4X3)+4+4

**M.PHARM 1<sup>st</sup> YEAR 1<sup>st</sup> SEMESTER EXAMINATION, 2017**  
(1<sup>st</sup>/2<sup>nd</sup> Semester/Repeat/Supplementary/ Spl. Supplementary/old/Annual/Bi - Annual)

**SUBJECT : PHARMACOLOGY-I**

Full marks: 100

Time: Three hours

Use separate answer – script for each part

No of questions	Part 1/4	GROUP - B	Marks
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3 Describe in brief the Preclinical Support for Phase I Clinical Trials. What do you mean by Mouse Lymphoma Assay? 12+8=20

4. Write short notes:- 4X5=20

- a) NCC MERP Index for Categorizing Medication Errors
- b) Classification of ADRs
- c) The Principles of Addiction Management
- d) Beginnings of Drug Abuse Management.

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**Dated: 25.10.2016**

**M. Pharm. 1<sup>st</sup> Semester Examinations 2017.**

**Time: 3 hours**

**Subject: Pharmacology-I**

**Full Marks: 100**

(Answer any *five* questions taking at least *one* from each group)

**GROUP - C**

5. Describe the different process through which water is reabsorbed by Nephron. Define positive and negative free water clearance. With proper diagram discussed about carbonic anhydrase inhibitor and potassium sparing diuretics.
  
6. Write in details about the different carcinogen that responsible for cancer. What are changes occurs during apoptosis. Write in details about the different pathway of apoptosis.

Ref. No. EX/PG/PHAR/T/112C/29/2017

Master of Pharmacy First Semester Exam. - 2017

Subject : ( PHARMACOLOGY- I )

GROUP - D

7. Discuss the intracellular signalling involved in the Ras - Raf pathway. Give some examples of drugs that may interfere with such signalling system. **12**
- Briefly discuss the role of ion channel receptor in the process of insulin release and cellular glucose uptake. **8**
8. Discuss the functioning of a nuclear receptor. How can you experimentally demonstrate upregulation / downregulation of a gene following administration of a PPAR agonist. **12+8=20**
9. Using suitable examples, discuss the functional classification of protein therapeutics. Mention some advantages and limitations of protein based therapeutic agents. **15+5=20**