

M. Pharm 1st Year 2nd Semester Examination 2019

Subject: Pharmaceutical Biotechnology – III

Time : 3 hrs

Full Marks : 100

Answer any five questions taking at least one from each group

Group – A

1. Write the significance of sterility testing. Briefly discuss the sterility testing procedure as per official monograph. 5+15=20

2. What is depyrogenation ? Write in short about the different methods of depyrogenation from pharmaceuticals. What is the permissible limit of endotoxin in parenterals as per FDA? Write the scientific name of the species used in LAL test. 4+12+2+2=20

3. Write short notes on **any four** of the following. 4×5=20
 - a. Resveratrol and its pharmaceutical importance
 - b. Industrial applications of Yeast
 - c. Probiotics and its health benefits
 - d. Gut-Brain microbiota signaling in relation to the psychobiotics
 - e. Skatole (3-methyl indole) in cosmeceuticals
 - f. Validation of HEPA filter

Ref. no. EX/PG/PHAR/T/129 F/2019

MASTER OF PHARMACY EXAMINATION, 2019

1st year, 2nd Semester

Pharmaceutical Biotechnology -III

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Group –A

- 4 . Write an account on leukocytes and their functions. 20
- 5 . Write an account on cytokines as biopharmaceuticals and JAK-STAT pathway. 10+10=20

Group- B

1. Write down the synthesis of purine nucleotide. How to regulate the metabolism of purine nucleotide? What is disorder of abnormal metabolism of purine. How to management of purine metabolism disorders. 8+5+4+3=20
2. What is cytokine? How to act the cytokine in the body? What are the structural families of cytokine? Write down the activity of cytokine. 2+5+3+10=20
3. How to assay the cytokine? Write a short note on cytokine receptor. Describe the urea cycle and discuss the metabolic disorder of urea cycle. 4+6+5+5=20