

Master of Pharmacy Examination, 2017  
2nd Semester

Pharmaceutical Biotechnology- III

Time: Three Hours

Full Marks: 100

Answer any five questions taking at least one from each group

Group - A

1. (a) Write a note on Personal Dosimeter for radiation unit.  
(b) Briefly discuss the integrity testing of HEPA Filter. Why it is so important?  
(c) Write the name of biological indicator used to validate the porosity of laboratory based membrane filter.  
(d) What is Pasteurized Egg? Write its significance.

4+ (6+2) +2+ (4+2)

2. Define synbiotics. Enlist few prebiotics for energy source of probiotic strains. Why probiotics are recommended during antibiotic therapy? Write the name of opportunist pathogen which causes antibiotic associated diarrhoea. Define dietary xenobiotics.

4+5+5+4+2= 20

Ref No.: Ex/PG/PHAR/T/129F/2017

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Group – B

3. Write about the different methods of isolation of antibiotic producing actinomycetes from soil. How antagonistic activity of microorganisms can be detected in a programme of isolating antibiotic producing organisms from natural sources?

10+10 = 20

4. (a) Write a note on the development of resistance to anti-mycobacterial therapy  
(b) Write about the mechanisms by which organisms become resistant to multiple antibiotics.  
(c) Write about the different approaches for controlling the problems of drug resistance

7+6+7=20

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M. PHARMACY, FIRST YEAR, SECOND SEMESTER 2017

Subject : PHARMACEUTICAL BIOTECHNOLOGY III Time : 3 hrs

Full Marks : 100

Group - C

Use separate answer scripts for each Group / answer any five questions

5. Write notes on 4x5=20
- a) Cytokines
  - b) Leukocytes and their classifications
  - c) Functions of leukocytes
  - d) The role of mast cells in development of allergy
6. Represent JAK-STAT pathway of cytokine function 20
7. Represent medical uses of interferons and their production 10+10=20

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M. PHARMACY FIRST YEAR SECOND SEMESTER – 2017

Subject: PHARMACEUTICAL BIOTECHNOLOGY- III

Time: 3hrs

Full Marks: 100

Group- D

Answer any five questions taking at least one from each group.

8. a) Short answer type questions: (any four)

i. Internal Energy

ii. Enthalpy

iii. ATP

iv. Standard free energy

v. Coupling of reactions

(4X5)

9. a) What is the relation between heat, work and energy in terms of thermodynamics – explain.

b) State the laws of thermodynamics with proper explanation.

c. Write short note on – Cyclic process, Reversible process

(5+8+3+3)