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Rajiv Gandhi University of Health Sciences, Karnataka
III Year Pharm-D Degree Examination – 10-Nov-2021

Time: Three Hours

Max. Marks: 70 Marks

PHARMACOLOGY –II (RS & RS2)

Q.P. CODE: 2861

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (answer any two)

2 x 10 = 20 Marks

1. Classify antimalarials. Describe the mode of action, adverse drug reactions and therapeutic uses of chloroquine and artemisinins.

Explain the principles, concept and applications of gene therapy.

Classify antitubercular and antileprotic agents. Discuss the DOTS therapy for tuberculosis.

SHORT ESSAYS (answer any six)

6 x 5 = 30 Marks

1. Write the mode of action, antibacterial spectrum and uses of penicillin G.
2. Classify immunosuppressant and write the uses of cyclosporine A.
3. Discuss chronic toxicity studies.
4. Classify diuretics. Describe the mode of action of loop diuretics.
5. Write the mode of action and therapeutic uses of heparin.
6. Write the major steps involved in protein biosynthesis.
7. Classify anticancer drugs? Mechanism of action of methotrexate.
8. What is mutation and classify. Write a note on point mutations.

SHORT ANSWERS

10 x 2 = 20 Marks

1. Ligases in rDNA.
2. Therapeutic uses of ofloxacin.
3. Mode of action of Albendazole.
4. Enlist drugs used in protozoal infections.
5. Co-trimoxazole.
6. Genomic complexity.
7. Gene transfer methods.
8. Drugs used in Urinary tract infections.
9. Cell cycle and its phases.
10. Mechanism of action of Tetracyclines.

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Rajiv Gandhi University of Health Sciences, Karnataka

Time: Three Hours

III Year Pharm-D Degree Examination – 15-Mar-2021

Max. Marks: 70 Marks

PHARMACOLOGY –II (RS & RS2)

Q.P. CODE: 2861

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (answer any two)

2 x 10 = 20 Marks

- .. Write in detail about classification of anti-bacterial agents depending on mechanism of action with examples.
- Explain the methods and applications of gene transfer technology.
- a) Write the mechanism of action, adverse effects and uses of vineristine.
- b) Classify antiretroviral agents with examples. Mention their important adverse effects.

SHORT ESSAYS (answer any six)

6 x 5 = 30 Marks

- Write mechanism of action, advantages and uses of Low Molecular Weight Heparins.
- Enlist potassium sparing diuretics. Write their mechanism of action and uses.
- Explain rationale behind co-trimoxazole combination. Write its advantages and uses.
- Write briefly on therapeutic classification of antimalarial agents.
- Draw cell cycle and give brief note on events of each phase.
- Explain the steps involved in translation process of prokaryotes.
- Write mechanism of action and uses of aspirin and dipyridamole combination.
- What are diuretics? Classify them with examples.

SHORT ANSWERS

10 x 2 = 20 Marks

- Mention four oral anticoagulants
- Classify loop diuretic, showing their site of action in nephron with labeled diagram.
- Enlist the drugs causing nephrotoxicity?
- Mention β -lactamase inhibitors. Mention their use.
- Write indications for recombinant interferons.
- How does cyclophosphamide produce immunosuppression?
- Explain the term chronic toxicity.
- What is telophase?
- What is diplotene?
- What are leading and lagging strands of DNA.



Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – 01-Dec-2020

Time: Three Hours

Max. Marks: 70 Marks

PHARMACOLOGY –II (RS & RS2)

Q.P. CODE: 2861

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (answer any two)

2 x 10 = 20 Marks

1. What are macrolide antibiotics? Give examples. Write the antimicrobial spectrum, mechanism of action and therapeutic uses of erythromycin.
2. Differentiate between gene sequencing and mapping. Describe any two methods of gene sequencing.
3. a) Classify anticancer agents with examples.
b) Classify antiretroviral agents with examples? Mention their important adverse effects.

SHORT ESSAYS (answer any six)

6 x 5 = 30 Marks

4. Write mechanism of action, adverse effects and therapeutic uses of warfarin
5. Write mechanism of action, adverse effects and uses of thiazide diuretics
5. Write the mechanism of action and uses of ampicillin.
7. Write briefly on therapeutic classification of antimalarial agents.
1. What is chromosome? Explain the structural aspects of the chromosome in eukaryotes.
1. What is gene therapy? Write strategies and applications of gene therapy.
1. What are biosensors? Write their general mode of action and uses.
- .. What is RNA processing? Write the importance of rRNA, tRNA and mRNA.

SHORT ANSWERS

10 x 2 = 20 Marks

- Mention two adverse effects and two contraindications for anticoagulants.
- What are osmotic diuretics? Write their uses.
- Enlist the drugs causing ototoxicity?
- What is DOTS therapy?
- What are interferons? Give examples.
- Enlist cytokine inhibitors.
- Explain the term subacute toxicity.
- What is anaphase?
- What is zygotene?
- What are OKAZAKI fragments?

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – 02-Jan-2020

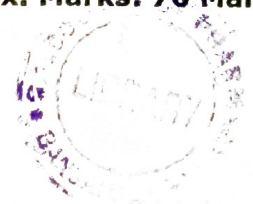
Time: Three Hours

Max. Marks: 70 Marks

PHARMACOLOGY –II (RS & RS2)

Q.P. CODE: 2861

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary



LONG ESSAYS (answer any two)

2 x 10 = 20 Marks

1. What are aminoglycoside antibiotics? Write the mechanism of action, adverse reactions and therapeutic uses of streptomycin. (2+3+3+2)
2. Describe the steps involved in recombinant DNA technology. Add a note on their pharmaceutical applications. (7+3)
3. Classify anti-leprotic drugs with examples. Write the mechanism of action, adverse effects and therapeutic uses of dapson. Add note on different forms of leprosy. (3+4+3)

SHORT ESSAYS (answer any six)

6 x 5 = 30 Marks

1. Write mechanism of action, adverse effects and therapeutic uses of warfarin.
2. Enlist diuretics acting on ascending and descending loop of Henle. Write their adverse effects and therapeutic use.
3. Write the mechanism of action and uses of ampicillin.
4. Write the mechanism of action, adverse effects and uses of vincristine.
5. Describe the signal transduction pathway of MAPK kinases.
6. What is RNA processing? Write the importance of tRNA and mRNA?
7. Explain the process of cell cycle regulation.
8. Write sources, mechanism of action and therapeutic uses streptokinase and urokinase.

SHORT ANSWERS

10 x 2 = 20 Marks

1. Name four fibrinolytic agents.
2. Mention four uses of thiazide diuretics.
3. Mention any four blood schizonticides.
4. What are probiotics? Give examples.
5. Write uses of Glucocorticoids as immunosuppressants.
6. Mode of action of Tetracyclines.
7. Define therapeutic index.
8. Explain the term chronic toxicity.
9. Mention stages of mitosis.
10. Name the types of gene therapies.

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – 02-Jan-2020

Time: Three Hours

Max. Marks: 70 Marks

PHARMACOLOGY –II (RS & RS2)

Q.P. CODE: 2861

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (answer any two)

2 x 10 = 20 Marks

- 1. What are aminoglycoside antibiotics? Write the mechanism of action, adverse reactions and therapeutic uses of streptomycin. (2+3+3+2)
- 2. Describe the steps involved in recombinant DNA technology. Add a note on their pharmaceutical applications. (7+3)
- 3. Classify anti-leprotic drugs with examples. Write the mechanism of action, adverse effects and therapeutic uses of dapsone. Add note on different forms of leprosy. (3+4+3)

SHORT ESSAYS (answer any six)

6 x 5 = 30 Marks

- 1. Write mechanism of action, adverse effects and therapeutic uses of warfarin.
- 2. Enlist diuretics acting on ascending and descending loop of Henle. Write their adverse effects and therapeutic use.
- 3. Write the mechanism of action and uses of ampicillin.
- 4. Write the mechanism of action, adverse effects and uses of vincristine.
- 5. Describe the signal transduction pathway of MAPK kinases.
- 6. What is RNA processing? Write the importance of tRNA and mRNA?
- 7. Explain the process of cell cycle regulation.
- 8. Write sources, mechanism of action and therapeutic uses streptokinase and urokinase.

SHORT ANSWERS

10 x 2 = 20 Marks

- 1. Name four fibrinolytic agents.
- 2. Mention four uses of thiazide diuretics.
- 3. Mention any four blood schizonticides.
- 4. What are probiotics? Give examples.
- 5. Write uses of Glucocorticoids as immunosuppressants.
- 6. Mode of action of Tetracyclines.
- 7. Define therapeutic index.
- 8. Explain the term chronic toxicity.
- 9. Mention stages of mitosis.
- 10. Name the types of gene therapies.

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – MAY-2019

Time: Three Hours

Max. Marks: 70 Marks

PHARMACOLOGY –II (RS & RS2)

Q.P. CODE: 2861

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (answer any two)

2 x 10 = 20 Marks

- Explain the mechanism action of antimicrobial agents acting by inhibiting protein synthesis. (2.5+2.5+2.5+2.5)
- Explain the basic principles and procedures of gene therapy. (3+7)
- a) Name four triazole antifungal agents? Write their merits and mechanism of action.
- b) What is mutation? Add a note on types of mutation. (5+5)

SHORT ESSAYS (answer any six)

6 x 5 = 30 Marks

- Classify antiplatelet agents on the basis of mechanism of action with examples.
- Enlist diuretics acting on ascending and descending loop of Henle. Write their adverse effects and therapeutic uses.
- Write antimicrobial spectrum, mechanism of action and adverse effects of fluoroquinolones.
- Write the pharmacology of mercaptopurine.
- Describe the term genome complexity.
- Write about limitations and applications of gene therapy.
- Write cellular classification along with brief description.
- What are diuretics? Classify them with examples.

SHORT ANSWERS

10 x 2 = 20 Marks

- What are GP IIb/IIIa antagonists? Give examples
- Enlist potassium sparing diuretics.
- What are drugs used in treatment of tapeworm infection? Name any four.
- What is chemoprophylaxis? Give examples.
- Outline mechanism of action of Cyclosporin.
- What is Thymosin? Mention its therapeutic uses.
- Write about duration of study period for acute, subacute and chronic toxicity studies.
- Name cell cycle regulators and modifiers.
- What are Biosensors?
- What is Chargoff's rule?



Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – DEC-2018

Time: Three Hours

Max. Marks: 70 Marks

PHARMACOLOGY –II (RS & RS2)

Q.P. CODE: 2861

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (answer any two)

2 x 10 = 20 Marks

What are aminoglycoside antibiotics? Write the mechanism of action, adverse reactions and therapeutic uses of streptomycin. (2+3+3+2)

Outline the steps involved in the process of gene expression in prokaryote. (5+5)

a) Describe the adverse effects of antineoplastic agents.

b) Explain the rationale behind cotrimoxazole combination. Write its advantages and uses. (5+5)

SHORT ESSAYS (answer any six)

6 x 5 = 30 Marks

What is heparin? Write its mechanism of action and therapeutic uses.

Discuss in detail about the diuretic and non diuretic uses of diuretics.

Write the antimicrobial spectrum and mechanism of action of broad spectrum antibiotic.

Write the pharmacology of taxols.

Write significance of different macromolecular assemblies of cell.

Explain the steps involved in transcription process of prokaryotes.

Write the mechanism of action, adverse effects and therapeutic uses of Warfarin.

Describe the structure of tRNA with schematic diagram.

SHORT ANSWERS

10 x 2 = 20 Marks

Write four therapeutic uses of anticoagulants.

What are carbonic anhydrase inhibitors? Give examples.

What is grey baby syndrome?

Name the causative organisms of malaria and TB.

What are Colony-Stimulating Factors? Write their specific use.

Mention immunosuppressant- monoclonal antibodies.

Explain the term acute toxicity.

What is prometaphase?

Enlist the cell cycle checkpoints.

Mention any four methods of DNA sequencing.

Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – NOV - 2017

Time: Three Hours

Max. Marks: 70 Marks

PHARMACOLOGY –II (RS & RS2)

Q.P. CODE: 2861

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (answer any two)

2 x 10 = 20 Marks

Classify cephalosporins with examples. Highlight on changes in antimicrobial spectrum, adverse reactions and therapeutic uses of each generation of cephalosporins. (4+6)

Discuss about the strategies, limitations and applications of gene therapy. (4+3+3)

Classify anti-retroviral agents with examples. Mention their important adverse effects.

Write a note on modes of cell communication. (5+5)

SHORT ESSAYS (answer any six)

6 x 5 = 30 Marks

What are GP IIb/IIIa antagonists? Give examples. Write their mechanism of action and uses.

What are anti-diuretics? Give examples. Add a note on mechanism of action and uses of ADH.

Classify the anticancer agents with examples.

Write the pharmacology of 5-fluorouracil.

Describe signal transduction pathway of MAPK kinases.

Write a note on viral and non-viral approaches of gene therapy.

Enlist antiplatelet agents. Write the mechanism of action and therapeutic uses of aspirin as an antiplatelet agent.

Describe the term genome complexity.

10 x 2 = 20 Marks

SHORT ANSWERS

- What is grey baby syndrome?
- Explain pharmacology of furosemide.
- What are triazoles? Write their merits and mechanism of action.
- What are drugs used in treatment of round worm infestation?
- Mention calcineurin inhibitors. Write their uses.
- What are mTOR inhibitors? Give examples.
- What is therapeutic index?
- Outline the principle of biosensors.
- Differentiate between DNA and RNA.
- What are oncogenes? Give examples.



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12 May 2017

Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination - May 2017

Time: Three Hours

Max. Marks: 70 Marks

PHARMACOLOGY -II (RS & RS2)

Q.P. CODE: 2861

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS (answer any two)

2 x 10 = 20 Marks

- What are penicillins? Write antimicrobial spectrum, adverse effects, preparations and uses of natural penicillins. (2+2+2+2+2)
- Discuss about the protein synthesis in eukaryotes? (3+4+3)
- a) Write the pharmacology of taxols.
- b) Write a note on steps involved in eukaryotic DNA replication. (5+5)

SHORT ESSAYS (answer any six)

6 x 5 = 30 Marks

- Write mechanism of action and uses of aspirin and clopidogrel combination.
- Write mechanism of action, adverse effects and therapeutic uses of frusemide.
- Write the mechanism of action, adverse effects and uses of albendazole.
- Differentiate between paucibacillary and multibacillary leprosy. Add a note on their treatment.
- Describe signal transduction pathway of p38 kinases.
- Write a note on structure and features of mRNA.
- Classify anticancer agents with examples.
- Explain salient features of B-form of DNA with a neat labeled diagram.

SHORT ANSWERS

10 x 2 = 20 Marks

- Write any four prophylactic uses of clopidogrel.
- Write pharmacology of spiranolactone.
- Write the pharmacology of drugs used in the treatment of giardiasis.
- What are the drugs used in filariasis?
- What are cytotoxic agents? Write their significance in immunology.
- What are TNF- α inhibitors? Give examples.
- Write briefly comparison between acute and chronic toxicity studies with examples.
- Define genome.
- Draw a diagram of cell cycle.
- What is meant by Genome and Genomics?



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Rajiv Gandhi University of Health Sciences, Karnataka

III Year Pharm-D Degree Examination – NOV 2016

Time: Three Hours

Max. Marks: 70 Marks

PHARMACOLOGY –II

Q.P. CODE: 2861

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any two)

2 x 10 = 20 Marks

1. Classify anti- malarial drugs with examples. Add a note on mefloquine and artemisinin derivatives
2. Explain RNA processing in detail
3. Classify diuretics with examples. Explain the pharmacology of loop diuretics

SHORT ESSAYS (Answer any six)

6 x 5 = 30 Marks

4. Write a note on 'lac operon'
5. Explain briefly about the various 'altered gene functions'
6. Explain 'flow of genetic information'
7. Adverse effects and uses of aminoglycosides
8. Write a note on 'Biosensors'
9. Explain the pharmacology of Vinca alkaloids
10. Write a note on chronic toxicity studies
11. Write the pharmacology of acyclovir

SHORT ANSWERS

10 x 2 = 20 Marks

12. Gene sequencing
13. Adverse effects of warfarin
14. Therapeutic uses of clopidogrel
15. JNK pathway of signal transduction
16. Structure of chromosome
17. Tazobactam
18. Name four immunostimulants
19. Name four macrolide antibiotics
20. Mechanism of action of methotrexate
21. Distinguish between thrombolytics and anticoagulants
