

Pharm - D
IV
2017

MANIKGAD - IV: SUMMER- 2017
SUBJECT : PHARMACOTHERAPEUTICS - III

Day : Friday
Date : 07/04/2017

Time : 02.00 P.M. TO 05.00 P.M.
Max. Marks : 70

N.B.:

- 1) **Q.No.1 and Q.No.5 are COMPULSORY.** Out of the remaining attempt **ANY TWO** questions from each section.
- 2) Answers to both the sections should be written in **SEPARATE** answer books.
- 3) Draw neat labeled diagram **WHEREVER** necessary.
- 4) Figures to the right indicate **FULL** marks.

SECTION - I

- Q.1 A) Attempt ANY FOUR of the following:** [08]
- i) Mention the clinical symptoms of Hepatitis-B.
 - ii) Mention four drugs that induce thrombocytopenia and brief possible mechanism of any one.
 - iii) What is the treatment goal for neuralgia due to herpes infection?
 - iv) What is the role of iron and ascorbic acid in anemia?
 - v) What is the role of heparin in ischemic stroke?
 - vi) Explain schilling test.
- B) Explain the drug regimen in H. Pylori infection.** [03]
- Q.2** Discuss the pathophysiology, clinical manifestation, neurochemical basis and management of Parkinsonism. [12]
- Q.3 a)** Explain the complications and treatment aspect related to peptic ulcer. [07]
b) Differentiate between typical and atypical antipsychotics. [05]
- Q.4** Write short notes on **ANY THREE** of the following: [12]
- a) Aplastic anemia and its management
 - b) NSAID induced ulcers
 - c) Parenteral iron therapy
 - d) Antacids in dyspepsia

SECTION - II

- Q.5 A) Attempt ANY FOUR of the following:** [08]
- i) Name any two tricyclic antidepressants (TCA) and mention their few side effects.
 - ii) What is the role of lithium in Acute Mania?
 - iii) What do you understand by drug induced agranulocytosis?
 - iv) Diagnostic test for GERD.
 - v) What are the symptoms and sign of depression?
 - vi) Mention drug of choice for tonic-clonic seizure and myoclonic seizure.
- B) Describe the management of anemia in chronic renal failure.** [03]
- Q.6** Explain clinical symptoms and pharmacotherapy of acute mania. [12]
- Q.7 a)** Mention the etiology for megaloblastic anemia and explain its management. [07]
b) Explain the pharmacotherapy of partial seizure. [05]
- Q.8** Write short notes on **ANY THREE** of the following: [12]
- a) Complications of alcoholic liver diseases
 - b) Gabapentine in neuropathy
 - c) Aminosalicylates in IBD
 - d) SSRI's in depression

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MANIKGAD – IV: SUMMER- 2017
SUBJECT : HOSPITAL PHARMACY

Day : Monday
Date : 10/04/2017

Time : 02.00 P.M. TO 05.00 P.M.
Max. Marks : 70

N. B. :

- 1) **Q. No. 1 and Q. No. 5 are COMPULSORY.** Out of the remaining attempt **ANY TWO** questions from each section.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in the **SEPARATE** answer books.
- 4) Draw neat and labeled diagram **WHEREVER** necessary.

SECTION - I

- Q. 1 A)** Answer **ANY FOUR** of the following: (08)
- i) What is a drug formulary?
 - ii) State the composition of research and ethics committee.
 - iii) What do you mean by automatic stop order system?
 - iv) Discuss role of hospital pharmacist in relationship to other hospital departments and staffs.
 - v) What do you mean by Standard Therapeutic Guidelines?
 - vi) State importance of news letter in hospital pharmacy communication.
- B)** Organization chart of hospital pharmacy. (03)
- Q. 2** What is an infection control program? Briefly explain the organization and functions of infection control committee. (12)
- Q. 3 a)** Discuss about organization pattern and functions of hospital. (07)
- b)** Role and responsibilities of hospital pharmacist. (05)
- Q. 4** Write short notes on **ANY THREE** of the following: (12)
- a) Professional skills required for hospital pharmacist
 - b) Role and responsibilities of PTC
 - c) Expenses account
 - d) Hospital formulary

P. T. O.

SECTION - II

- Q. 5 A)** Answer **ANY FOUR** of the following: (08)
- i) What is ABC analysis?
 - ii) Handling of radiopharmaceuticals.
 - iii) Write the formula for calculating EOQ.
 - iv) What is envelop method of drug distribution?
 - v) What is floor stock method of drug distribution?
 - vi) Sterilization Cycle.
- B)** Role of pharmacist in education and research. (03)
- Q. 6** Define drug distribution system. Explain in detail about individual prescription method with its advantages and disadvantages. (12)
- Q. 7 a)** What is central sterile supply service and explain role of pharmacist in it. (07)
- b)** Explain the manufacturing of large volume parenterals. (05)
- Q. 8** Write short notes on **ANY THREE** of the following: (12)
- a) VED inventory control
 - b) Warehousing of drugs and pharmaceuticals
 - c) Small volume parenterals
 - d) Role of pharmacist in distribution of narcotic and other controlled substances

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MANIKGAD-IV: SUMMER- 2017
SUBJECT: CLINICAL PHARMACY

Day: Wednesday
Date: 12/04/2017

Time: 02.00 P.M. TO 05.00 P.M.
Max. Marks: 70

N.B:

- 1) **Q. NO.1 and Q.NO.5 are COMPULSORY.** Out of remaining answer **ANY TWO.**
- 2) Figures to the right indicate **FULL** marks.
- 3) Answer to the both sections should be written in **SEPARATE** answer books.
- 4) Draw neat and labeled diagrams **WHEREVER** necessary.

SECTION-I

- Q.1 a)** Answer **ANY FOUR** of the following: (08)
- i) What is medication order review?
 - ii) Explain briefly role of pharmacist in ward rounds.
 - iii) Expand following abbreviations – SHPA, DPIC
 - iv) Give significance of BUN.
 - v) How will you diagnose myocardial infarction considering cardiac enzymes?
 - vi) Give significance of Sr. Potassium.
- b)** What are the indications of therapeutic drug monitoring? (03)
- Q.2** What is DUE? Write its types and explain the DUE cycle in detail. (12)
- Q.3 a)** Discuss quality assurance in clinical pharmacy services. (07)
- b)** Discuss the role of Pharmacist in conducting medication history interview. (05)
- Q.4** Write short notes on **ANY THREE:** (12)
- a) Thyroid functions tests
 - b) Hypocalcemia
 - c) Pharmacist intervention
 - d) Assessment of severity of ADRs

SECTION-II

- Q.5 a)** Answer **ANY FOUR** of the following: (08)
- i) Expand following abbreviations – CBC, ALP
 - ii) Define drug information service.
 - iii) Name resources for poison information service.
 - iv) Give significance of Haemoglobin and Hematocrit.
 - v) Mention any four categories of medication errors.
 - vi) Define Pharmacovigilance.
- b)** Briefly explain requirements for drug information centre. (03)
- Q.6** Define and classify ADRs with examples. Explain predisposing factors for ADRs and write a note of ADR reporting. (12)
- Q.7 a)** Define medication errors and methods to prevent them. (07)
- b)** Discuss various methods used for pharmacovigilance (05)
- Q.8** Write short notes on **ANY THREE:** (12)
- a) Tests defining liver injury
 - b) RBC Indices
 - c) Management of ADRs
 - d) Clinical review

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MANIKGAD -IV : SUMMER- 2017
SUBJECT :BIOSTATISTICS AND RESEARCH METHODOLOGY

Day : Saturday
Date : 15/04/2017

Time : 02.00 P.M.TO 05.00 P.M.
Max. Marks : 70

N. B. :

- 1) **Q.No.1 and Q. No.5 are COMPULSORY.** Out of the remaining questions attempt **Any TWO** from each section.
- 2) Answers to both the sections should be written in **SEPARATE** answer books.
- 3) Use of non-programmable electronic pocket calculator is **ALLOWED**.
- 4) Statistical tables and graph papers will be supplied at the examination centre.
- 5) Figures to the right indicate **FULL** marks.

SECTION - I

- Q.1 a) Solve Any FOUR of the following :** (08)
- i) Mention two uses of computer in community pharmacy
 - ii) How do you store information in computers?
 - iii) How do you retrieve information from computers?
 - iv) What is LD₅₀?
 - v) Define confidence interval
 - vi) What is sample size?
- b) What are limitations to use of placebo?** (03)
- Q.2** What are different types of designs in clinical trials? Compare and contrast them. (12)
- Q.3** What are the components of clinical trial? Write responsibilities of any two stakeholders. (12)
- Q.4** Write short notes on **Any THREE** of the following : (12)
- a) Chronic toxicity
 - b) Phases of clinical trials
 - c) Power of study
 - d) Adverse drug reactions

SECTION - II

- Q.5 a) Solve Any FOUR of the following :** (08)
- i) Give one example each of positive and negative correlation.
 - ii) Find the mean and the median for the following :
39, 38, 47, 43, 52, 56, 32
 - iii) When two dice are tossed what is the probability of getting the addition of the face values as 11?
 - iv) Define Median.
 - v) Explain the term 'Attributed Risk'.
 - vi) Draw a diagram representing a good degree of positive correlation.

P.T.O.

- b) Using the following data decide whether the drug is effective (Use 5% /L.O.S.) (03)

	Drug given	Drug not given
Cured	140	75
Not cured	30	65

- Q.6 a) Compute the standard Deviation (S.D.) for the following data : (06)

Age of the patient	20-30	30-40	40-50	50-60	60-70
No. of patients	16	24	27	23	18

- b) Draw the 'Greater than Ogive' for the following data in respect of the body temperature of the patients. (06)

Temp. in °F	90-92	92-94	94-96	96-98	98-100	100-102	102-104
No. of Patients	11	17	22	28	16	13	9

- Q.7 a) On the average; in a certain quantity of blood of a healthy individual 4 RBC are found. Compute the probability of getting at least 3 RBC for a randomly selected healthy individual in the same quantity of blood. (06)

- b) Following is the data in respect of the weight of the patients and their pulse rate. (06)

Weight in Kgs	65	68	71	74	77	80	83	86
Pulse Rate	70	72	75	74	77	78	82	85

Computing the Karl Pearson's correlation coefficient for the above data.

- Q.8 a) The No. of accidents occurred on a highway during a week are as below. (06)

Day	Mon	Tue	Wed	Thu	Fri	Sat	Sun
No. of Accidents	8	3	4	7	2	13	17

Test whether the occurrence of the accidents is uniform over the week (use 5 % L.O.S.)

- b) Following is the data in respect of the reduction in weights (in Kgs) after one month for some patients using (06)

- i) different diets A, B, C and
ii) different exercise procedures X, Y, Z.

Diets used	A	B	C
Exercise X	16	11	9
Procedures Y	15	12	7
Z	13	13	13

Prepare ANOVA table and decide whether there is a significant difference in the reduction of the weights due to

- i) different diets used
ii) different exercise procedures used (use 5 % / L.O.S.)

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29/4/17
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MANIKGAD – IV: SUMMER- 2017
SUBJECT : BIOPHARMACEUTICS & PHARMACOKINETICS

Day : Tuesday	Time : 02.00 P.M. TO 05.00 P.M.
Date : 18/04/2017	Max. Marks : 70

N.B.:

- 1) **Q.No.1 and Q.No.5** are compulsory. Out of the remaining questions attempt **ANY TWO** questions from each section.
- 2) Answers to both the sections should be written in the **SEPARATE** answer books.
- 3) Draw neat and labeled diagrams **WHEREVER** necessary.
- 4) Figures to the right indicate **FULL** marks.

SECTION – I

- Q.1 a)** Answer **ANY FOUR** of the following: [08]
- i) What is pinocytosis and phagocytosis?
 - ii) Write the classification of internal structure of a drug.
 - iii) What is meant by rate of tissue permeation and rate of blood perfusion?
 - iv) Explain the binding of drugs to human serum albumin.
 - v) Enlist the factors affecting renal clearance.
- b)** Write about the microsomal enzymes and non-microsomal enzymes. [03]
- Q.2** Explain in detail various mechanism of drug absorption. [12]
- Q.3 a)** Give an account of factors affecting drug distribution. [07]
- b)** Give an account of factors influencing renal clearance. [05]
- Q.4** Write short notes on **ANY THREE** of the following: [12]
- a) Plasma protein binding
 - b) Drug metabolizing enzyme
 - c) pH- pH partition hypothesis
 - d) Theories of dissolution

SECTION – II

- Q.5 a)** Answer **ANY FOUR** of the following: [08]
- i) What is the influence of K_s and K_E on C_{max} , t_{max} and AUC?
 - ii) Write the half life equations for zero order and first order kinetics.
 - iii) Write the applications of pharmacokinetic models.
 - iv) Write the objectives of bioavailability studies.
 - v) Enlist the methods for enhancement of bioavailability.
- b)** The equation best fits the plasma level time curve of azlocillin after an i.v. bolus dose of 2000mg (assuming one compartment kinetic) is $C = 143e^{-0.87t}$. Calculate V_d , $t_{1/2}$ of drug. [03]
- Q.6** Derive the pharmacokinetic parameters of extra vascular administration assuming one compartment open model. [12]
- Q.7 a)** Explain the approaches to improve the bioavailability of a BCS class – II drugs. [07]
- b)** Explain the IVIVC in detail. [05]
- Q.8** Write short notes on **ANY THREE** of the following: [12]
- a) Pharmacokinetic modeling
 - b) Non-compartment analysis
 - c) Infusion plus loading drug
 - d) Non-linear pharmacokinetics

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MANIKGAD-IV : SUMMER- 2017
SUBJECT : CLINICAL TOXICOLOGY

Day : Thursday
Date : 20/04/2017

Time : 02.00 P.M. TO 05.00 P.M.
Max. Marks : 70.

N.B.:

- 1) Q. No. 1 and Q. No. 5 are **COMPULSORY**. Out of remaining attempt any **TWO** questions from Section-I and any **TWO** questions from Section-II
- 2) Section-I and Section-II should be written in **SEPARATE** answer book.
- 3) Figures to the right indicate **FULL** marks.

SECTION-I

- Q.1 A)** Answer any **FOUR** of the following: (08)
- i) Define toxicology and poison.
 - ii) Write significance of 'Gut decontamination' in oral poisoning.
 - iii) Write in brief about antidotes.
 - iv) Give an account on supportive care.
 - v) What are the target end points for atropine therapy?
 - vi) Write in brief about radiation poisoning.
- B)** Describe clinical symptoms and management of acute alcohol poisoning. (03)
- Q.2** Describe in details signs and symptoms, fatal dose and fatal period, management and postmortem appearances due to acute opium poisoning. (12)
- Q.3 a)** Define sedative and hypnotics; discuss signs and symptoms, management and medico legal aspects of acute barbiturate poisoning. (07)
- b)** Describe clinical symptoms and management of acute carbamates poisoning. (05)
- Q.4** Write short notes on any **THREE** of the following: (12)
- a) Paracetamol poisoning
 - b) Toxicokinetics
 - c) Vitriolage
 - d) Hemodialysis.

P.T.O.

SECTION-II

- Q.5** A) Answer any **FOUR** of the following: (08)
- i) Which two systems are targeted by Lead?
 - ii) What is the antidote for Mercury poisoning?
 - iii) Write symptoms of Arsenic poisoning.
 - iv) Name two chelators used to treat metal toxicity.
 - v) What are the constituents of snake venom?
 - vi) Which enzyme/protein in body contains copper?
- B) Write in brief about spider sting. (03)
- Q.6** Discuss in detail symptoms, first aid and clinical management of after bite by a cobra snake. (12)
- Q.7** a) Describe signs and symptoms, management, postmortem appearances and medico legal aspects of viper bite. (07)
- b) Write symptoms of toxicity and treatment for Mushroom poisoning. (05)
- Q.8** Write short notes on any **THREE** of the following: (12)
- a) Food poisoning
 - b) Scorpion bite and its treatment
 - c) Mycotoxins
 - d) Bees sting.

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MANIKGAD – IV : SUMMER- 2017
SUBJECT: PHARMACOTHERAPEUTICS – I + II

Day: **Friday**
Date: **21-04-2017**

Time: **2:00PM TO 5:00PM.**
Max Marks. 70

N.B.

- 1) **Q. No. 1 and Q. No. 5 are COMPULSORY.** Out of the remaining attempt **ANY TWO** questions from Section – I and **TWO** questions from Section – II.
- 2) Answer to the two sections should be written in **SEPARATE** answer book.
- 3) Figures to the **RIGHT** indicate full marks.

SECTION - I

- Q.1** a) Answer any **FOUR** of the following (08)
i) Write down clinical presentation of viral and bacterial conjunctivitis.
ii) Diagnosis of COPD
iii) What is Diabetic Foot
iv) Electrophysiology of Heart
v) Classification of Antiarrhythmics
vi) Classification of Angina Pectoris
- b) Enumerate Pulmonary function Tests. (03)
- Q.2** Explain in detail about diabetes and its management. (12)
- Q.3** a) Define the role of pharmacist in rational Drug use. What is Essential Drug Concept? (07)
b) Write down pharmacotherapy of Glaucoma. (05)
- Q.4** Write short notes on Any **THREE** of the following (12)
a) Pediatric prescribing guidelines.
b) Common ailments and diseases in Geriatrics
c) Thyroid diseases
d) Hormone Replacement Therapy

SECTION - II

- Q.5** a) Answer any **FOUR** of the following (08)
i) What is systemic lupus erythematosus?
ii) What is gout?
iii) What is psoriasis?
iv) What is endocarditis?
v) What is leukemia?
- b) Present an outline for fungal infections. (03)
- Q.6** Discuss therapy of Tuberculosis with special reference to MDR & TDR. (12)
- Q.7** a) Comment on drug – induced renal disorders. (07)
b) What are basic principles of cancer therapy? (05)
- Q.8** Write short notes on Any **THREE** of the following (12)
a) Osteoarthritis
b) Acute Renal failure
c) Gonorrhoea
d) Spondylitis

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