

**MANIPAL UNIVERSITY****SECOND YEAR B.P.T./B.O.T./B.Sc. R.T./ B.Sc. C.V.T./ B.Sc. R.R.T. & D.T/  
FOURTH SEMESTER B. PFT DEGREE EXAMINATION – JUNE 2016****SUBJECT: PATHOLOGY**

(2010 REGULATION/2011 BATCH/2010 SCHEME/2011 SCHEME/BDT 201/CBS-PFT 204)

Wednesday, June 15, 2016

Time: 10:00-11:30 Hrs.

Max. Marks: 40

- ✍ Answer ALL questions.
- ✍ Illustrate your answers with diagrams wherever necessary.

1. Define osteomyelitis. Mention the etiology and discuss the morphology of bone osteomyelitis.

(1+2+5 = 8 marks)

2. Define neoplasia. Give four differences between a benign and a malignant tumour.

(3+4 = 7 marks)

3. Write short notes on:

3A. Granuloma

3B. Metaplasia

3C. Types of embolism

3D. Morphology of lepromatous leprosy

3E. Etiology of gastric ulcer

(5 marks × 5 = 25 marks)



**MANIPAL UNIVERSITY****SECOND YEAR BPT/BOT/B.Sc. RT/B.Sc. CVT/B.Sc. RRT & DT/  
FOURTH SEMESTER B. PFT DEGREE EXAMINATION – JUNE 2016****SUBJECT: MICROBIOLOGY****(COMMON FOR 2010 REGULATION/2011 BATCH/2010 SCHEME/2011 SCHEME/BDT 202/PFT 206)**

Friday, June 17, 2016

Time: 10:00-11:30 Hrs.

Max. Marks: 40

**✍ Draw Diagrams wherever appropriate.**

1. Classify immunity. Discuss the mechanism of innate immunity. (2+5 = 7 marks)
  
2. Discuss the investigation of nosocomial infections. State the importance of MRSA in nosocomial infections. (6+2 = 8 marks)
  
3. **Write short notes on:**
  - 3A. Laboratory diagnosis of tuberculosis
  - 3B. Pathogenesis of tetanus
  - 3C. Laboratory diagnosis of streptococcal skin infection
  - 3D. Laboratory diagnosis of urinary tract infections
  - 3E. Constituents and significance of cell mediated immunity(5 marks × 5 = 25 marks)



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## MANIPAL UNIVERSITY

### SECOND YEAR B.P.T./B.O.T./B.Sc. M.I.T./B.Sc. C.V.T./B.Sc. R.R.T. & D.T. DEGREE EXAMINATION – JUNE 2016

#### SUBJECT: PHARMACOLOGY

(COMMON FOR 2010 REGULATION/2011 BATCH/2012 SCHEME/2011 SCHEME/BDT 203)

Monday, June 20, 2016

Time: 10:00-11:30 Hrs.

Max. Marks: 40

**Answer the following questions:**

- 1A. Mention two classes of anti-anginal drugs and explain the mechanism of action of any one of them.
- 1B. Enumerate two aminoglycosides and list their four therapeutic uses.
- 1C. List two first line anti-tubercular drugs and explain the mechanism of action of any one of them.
- 1D. List three advantages each of oral and intravenous routes of drug administration.  
(3 marks × 4 = 12 marks)
  
2. **Mention two examples of the following groups of drugs and mention two uses of any one of them.**
  - 2A.  $\beta$ -lactam antibiotics
  - 2B. Selective  $\beta_2$ - agonists
  - 2C. Proton pump inhibitors
  - 2D. Angiotensin converting enzyme inhibitors
  - 2E. Statins

(2 marks × 5 = 10 marks)
  
- 3A. Explain the pharmacological basis for combining levodopa with carbidopa.
- 3B. List two second generation antihistaminics and mention their two advantages over first generation antihistaminics.
- 3C. Enumerate two oral iron preparations and list their two adverse effects.
- 3D. Mention one each of oral and parenteral anticoagulants and list two therapeutic uses of any one of them.
- 3E. List four differences between aspirin and paracetamol.  
(2 marks × 5 = 10 marks)
  
4. **List two drugs used in the following conditions:**
  - 4A. Malaria
  - 4B. HIV
  - 4C. Cancer
  - 4D. Type II diabetes mellitus
  - 4E. Epilepsy
  - 4F. Rheumatoid arthritis
  - 4G. Congestive heart failure
  - 4H. Constipation

(1 mark × 8 = 8 marks)



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## MANIPAL UNIVERSITY

SECOND YEAR B.Sc. C.V.T. DEGREE EXAMINATION – JUNE 2016

SUBJECT: PAPER IV – DIAGNOSTIC AND THERAPEUTICS CARDIOLOGY  
(2011 SCHEME)

Wednesday, June 22, 2016

Time: 10.00-11.30 Hrs.

Max. Marks: 40

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- ✍ Answer ALL the questions.
- ✍ Draw the diagram wherever necessary.

1. Explain Indications of dual chamber pacemakers in detail.
2. Explain exercise protocol in detail.
3. Explain various types of ultrasound transducers with its applications.
4. Explain various signs of PTE in X-ray.
5. Explain TMT in Aortic stenosis and regurgitation.

(8 marks × 5 = 40 marks)



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**MANIPAL UNIVERSITY**

**SECOND YEAR B.Sc. C.V.T. DEGREE EXAMINATION – JUNE 2016**

**SUBJECT: PAPER V – CONGENITAL & ACQUIRED HEART DISEASE  
(2011 SCHEME)**

Friday, June 24, 2016

Time: 10.00 – 11.30 Hrs.

Max. Marks: 40

- ✍ **Answer ALL the questions.**
- ✍ **Draw the diagram wherever necessary.**

1. Explain pathophysiology of aortic stenosis and severity assessment in detail.
2. Explain congenital anomalies of coronary vessels and aortic root.
3. Define classification of Tricuspid atresia.
4. Explain types of ASD's with ECG and ECHO findings.
5. Pathophysiology of TOF.

(8 marks × 5 = 40 marks)

