



## MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER B.O.T./ B.Sc. M.L.T./ B.Sc. P.F.T./ B.Sc. E.S.S./ B.Sc. N.M.T./B. Opt./ B.Sc. H.I.M./  
BPT/ B.Sc. M.R.T./B.Sc. C.V.T./B.Sc. R.T./ B.Sc. M.I.T./B.Sc. RRT&DT/M.Sc. M.R.P. DEGREE

EXAMINATION - DECEMBER 2018

SUBJECT : ANATOMY/ANATOMY I

(ANAT 101/ANAT 103/BOPT 101/BHIM 101/ BMRT 101)

(2016 RV/2016 SCHEME)

Saturday, December 01, 2018 (14.00 - 16.00)

Answer ALL questions.

Marks: 50

Duration: 120 mins.

- |     |  |      |
|-----|--|------|
| 1)  | Name the parts of the renal system. Describe the right and left kidneys in detail.<br>(4+6 = 10 marks) | (10) |
| 2)  | Name the parts of the respiratory tract. Describe the nasal cavity in detail.<br>(4+6 = 10 marks)      | (10) |
| 3A) | Right atrium of the heart  | (5)  |
| 3B) | Pancreas   | (5)  |
| 3C) | Testis   | (5)  |
| 3D) | Midbrain   | (5)  |
| 4A) | Classification (types) of epithelia  | (2)  |
| 4B) | Uterus   | (2)  |
| 4C) | Eyeball  | (2)  |
| 4D) | Thyroid gland  | (2)  |
| 4E) | Names of ventricles of the brain   | (2)  |

-----End-----

# Question Paper

Exam Date & Time: 05-Dec-2018 (02:00 PM - 04:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

**FIRST SEMESTER B.O.T./ B.Sc. M.L.T./ B.Sc. P.F.T./ B.Sc. E.S.S./ B.Sc. N.M.T./B. Opt./B.Sc. H.I.M./  
BPT/ B.Sc. M.R.T./B.Sc. C.V.T./B.Sc. R.T./ B.Sc. M.I.T./B.Sc. RRT&DT/M.Sc. M.R.P. DEGREE  
EXAMINATION - DECEMBER 2018  
SUBJECT : PHYS 101/BHIM 103/BRES 105/BMRT 103 - PHYSIOLOGY /PHYSIOLOGY - I  
(2016 RV SCHEME/2016 SCHEME)  
Wednesday, December 05, 2018 (14.00 - 16.00)**

**Answer ALL questions.**

**Marks: 50**

**Duration: 120 mins.**

- 1A) Define cardiac output. Give its normal value. Mention three conditions where cardiac output is increased. (5)
- 1B) List three properties of cardiac muscle. Explain any one. (5)
- 2) **Describe erythropoiesis under the following headings:** (10)  
a) Definition  
b) Site of formation in adults  
c) Stages of erythropoiesis  
d) Developmental changes occurring during different stages  
e) Two factors regulating erythropoiesis
- 3A) Describe the chemical regulation of respiration. (5)
- 3B) Draw a neat labeled diagram of neuromuscular junction. Describe the events that occur during neuromuscular transmission in the form of flow chart. (5)
- 3C) Draw a neat and labelled diagram of visual pathway and name the photoreceptors. (5)
- 3D) **Define the following:** (5)  
a) Cyanosis  
b) Hypoxia  
c) Apnea  
d) Dyspnea  
e) Asphyxia
- 4A) Mention two functions of middle ear. (2)
- 4B) Write two differences between simple diffusion and active transport. (2)
- 4C) **Define:** (2)  
a) Residual volume  
b) Vital capacity
- 4D) Write two differences between myelinated and unmyelinated nerve fibres. (2)



# Question Paper

Exam Date & Time: 08-Dec-2018 (02:00 PM - 05:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

**FIRST SEMESTER B.Sc. (RRT & DT) DEGREE EXAMINATION - DECEMBER 2018**  
**SUBJECT: BDT 101 - KIDNEY DISEASE I**  
**(2016 RV SCHEME)**

**Saturday, December 08, 2018 (14.00 - 17.00)**

**Answer ALL questions.**

**Marks: 100**

**Duration: 180 mins.**

- |     |   |      |
|-----|---|------|
| 1A) | Explain the gross anatomy of kidney and discuss the functions of normal kidney.       | (20) |
| 1B) | Define CKD. List the causes and risk factors for CKD. Discuss the CKD classification. | (20) |
| 2A) | Define AKI. Discuss the causes of AKI.  | (10) |
| 2B) | Discuss the steps of urine formation.   | (10) |
| 3A) | Enumerate the normal vitamin D pathway.   | (5)  |
| 3B) | What are the indications for initiating the dialysis?                                 | (5)  |
| 3C) | Define glomerular filtration rate. List the factors affecting GFR.                    | (5)  |
| 3D) | Write a note on juxta glomerular apparatus.   | (5)  |
| 3E) | Write a note on extracellular and intracellular fluids.                               | (5)  |
| 3F) | What are the functions of proximal convoluted tubule?                                 | (5)  |
| 4A) | Define osmosis.   | (2)  |
| 4B) | Which hormone is responsible for red blood cells production?                          | (2)  |
| 4C) | What is renal papilla?  | (2)  |
| 4D) | Write the normal pH of blood.   | (2)  |
| 4E) | Define renal autoregulation.  | (2)  |

-----End-----