

Question Paper

Exam Date & Time: 21-Apr-2021 (02:30 PM - 04:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER B.O.T. / B.Sc. M.L.T. / B.Sc. P.F.T. / B.Sc. AOTT / B.Sc. E.S.S. / B. Opt. / B.Sc. H.I.M. / BPT / B.Sc. C.V.T. / B.Sc. RADIOTHERAPY/B.Sc. R.T. / B.Sc. M.I.T. / B.Sc. RRT&DT DEGREE EXAMINATION - APRIL 2021
SUBJECT: PHYS 101 - PHYSIOLOGY- I / PHYSIOLOGY
(2016 RV/2019 SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- 1A) Name different stages of erythropoiesis. Mention any two developmental changes occurring during different stages of erythropoiesis. (5)
- 1B) Write the steps involved in intrinsic pathway of blood coagulation in the form of a flow chart. (5)
- 2A) Describe left ventricular pressure and volume changes during a cardiac cycle with the help of a graph. (5)
- 2B) Draw a neat labeled diagram of a normal ECG recorded from limb lead II. Mention the causes for different waves in ECG (5)
- 3A) Draw a neat labelled diagram of oxygen hemoglobin dissociation curve. Enumerate three factors shifting the curve to the right. (5)
- 3B) Name the types of refractory errors. Mention the cause and correction of the same (5)
- 3C) Describe the events that occur during neuromuscular transmission in the form of flow chart. (5)
- 3D) Write the differences between simple diffusion and active transport. Explain primary active transport with an example. (5)
- 4A) Write a note on impedance matching (2)
- 4B) Define vital capacity and give its normal value. (2)
- 4C) Name the contractile proteins of the skeletal muscle (2)
- 4D) Write two differences between rods and the cones. (2)
- 4E) Draw a labeled diagram of the nerve action potential (2)

-----End-----

Question Paper

Exam Date & Time: 23-Apr-2021 (02:30 PM - 04:30 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER B.Sc. CARDIOVASCULAR TECHNOLOGY DEGREE EXAMINATION - APRIL 2021
SUBJECT: BCVT 101 - CARDIAC ANATOMY AND PHYSIOLOGY
(2016 RV SCHEME)

Marks: 50

Duration: 120 mins.

Answer all the questions.

- | | | |
|-----|---|------|
| 1) | Explain the conduction system of the heart in detail. | (10) |
| 2) | Discuss the different phases in cardiac cycle with a neat labelled diagram. | (10) |
| 3A) | Describe the systemic circulation in detail. | (5) |
| 3B) | Explain the internal anatomy of Right atrium. | (5) |
| 3C) | With a neat labelled diagram explain the arterial supply of the heart. | (5) |
| 3D) | Write the characteristics of First heart sound. | (5) |
| 4A) | Define Pansystolic murmur and write two examples. | (2) |
| 4B) | What is collapsing pulse, Write one example. | (2) |
| 4C) | Name the layers of heart. | (2) |
| 4D) | What is hangout interval. | (2) |
| 4E) | Write two causes for third heart sound. | (2) |

-----End-----