Question Paper

Exam Date & Time: 19-Apr-2021 (02:30 PM - 04:30 PM)

MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER B.Sc.M.I.T./ B.O.T./B.Sc.C.V.T./B.Sc.RADIOTHERAPY /B.Sc.P.F.T./BPT/B.Sc.E.M.T./B.Sc.A.T./ B.SC.RRT & DT/B.Sc.R.T./B.Opt./B.Sc.M.L.T./B.Sc.C.N.D./ B.Sc.N.M.T. DEGREE EXAMINATION - APRIL 2021
SUBJECT: ANA1101: ANATOMY-I / ANA1103: ANATOMY
(2020 SCHEME)

Marks: 50 **Duration: 120 mins.**

Answer all the questions.

1)	Name the parts of the brainstem. Describe the external and internal features of the pons. (3+7 = 10 marks)	(10)
2)	Name the parts of the renal system. Describe the kidneys in detail (4+6 = 10 marks)	(10)

3. **Write Short Notes on:**

3A)	Lungs	(5)
3B)	Uterus	(5)
3C)	Pituitary gland	(5)
3D)	Blood supply to heart	(5)

4. **Write Short Notes on:**

4A)	Cartilage	(2)
4B)	Pharynx	(2)
4C)	Large intestine	(2)
4D)	Pancreas	(2)
4E)	Spermatic cord	(2)

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Question Paper

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

MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER B.Opt./ B.O.T./ B.Sc.N.M.T./ B.Sc.E.M.T./ B.Sc.A.T./ B.Sc.M.L.T./ B.Sc.P.F.T./ B.SC.RRT & DT / B.Sc.R.T./B.Sc.M.I.T./ B.Sc.C.V.T./ BPT /B.Sc.RADIOTHERAPY TECHNOLOGY/B.Sc.C.N.D. DEGREE EXAMINATION - APRIL 2021
SUBJECT: PHY1101: Physiology - I / PHY1103: Physiology
(2020 SCHEME)

Marks: 50 **Duration: 120 mins.**

Answer all the questions.

1A)	Explain excitation- contraction coupling in skeletal muscle with the help of a flow chart.	(5)
1B)	Draw a neat labelled diagram of action potential recorded from a nerve fiber and give the ionic basis for different phases of the action potential.	(5)
2A)	Define blood pressure. Mention its normal value. Describe the response of baroreceptor for increased blood pressure.	(5)
2B)	Draw a labelled diagram of normal ECG recorded from limb lead II. Give the causes for the different waves of ECG.	(5)

3. **Write Short Notes on**:

3A)	Draw a labelled diagram of the visual pathway. Indicate lesion of visual pathway at left optic tract and name the defect in field of vision.	(5)
3B)	Explain the extrinsic pathway of blood coagulation, with the help of a flow chart.	(5)
3C)	List the antigens and antibodies in different blood groups of ABO and Rh systems.	(5)
3D)	Name the muscles of inspiration. Describe the mechanism of inspiration with help of a flow chart.	(5)

4. **Write Short Notes on:**

4A)	Name the cause and correction of myopia.	(2)
4B)	Define active transport. Give one example for the same.	(2)
4C)	Mention any **TWO** factors that shift the oxygen-hemoglobin dissociation curve to the right.	(2)
4D)	Name the receptors for taste and smell.	(2)
4E)	Define hypoxia. Mention the types of hypoxia.	(2)

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Question Paper

Exam Date & Time: 23-Apr-2021 (10:00 AM - 01:00 PM)

MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER B.Sc. (RRT & DT) DEGREE EXAMINATION - APRIL 2021
SUBJECT: RRT 1101 - KIDNEY DISEASE - I
(2020 SCHEME)

Marks: 100 **Duration: 180 mins.**

Answer all the questions.

1)	Explain the distribution of total body water and its composition. Describe the role of the nephron in electrolyte balance.	(20)
2)	List the components of the urinary system and explain the longitudinal section of the kidney with a neat-labelled diagram.	(20)
3)	Classify acid-base disorders. Describe the three major buffering systems involved in acid-base balance.	(10)
4)	List the hormones produced by the kidney. Describe the Vitamin D pathway and its importance.	(10)
5A)	Define conservative management and outline the palliative care for end-stage renal disease patients.	(5)
5B)	Illustrate the renal blood supply and write any one special feature of renal blood supply.	(5)
5C)	Define glomerular filtration. List the factors affecting glomerular filtration.	(5)
5D)	Describe the treatment options available for acute kidney injury patients and mention the importance of each treatment option.	(5)
5E)	Define chronic kidney disease. List any two major causes for chronic kidney disease and write a note on any one.	(5)
5F)	List the steps of urine formation and write the importance of each step.	(5)
6A)	Name the best treatment option among renal replacement therapies with reason.	(2)
6B)	Define osmolality.	(2)
6C)	List the three outer covering layers of the kidney.	(2)
6D)	Define pH and write its importance.	(2)
6E)	What are the ideal characteristics of filtration markers used to estimate glomerular filtration rate?	(2)

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