M.D. DEGREE EXAMINATIONS
BRANCH XXIII – ANATOMY
PAPER III – HISTOLOGY, NEUROANATOMY AND MUSEUM TECHNIQUES
Q.P. Code : 202091

Time : 3 hours　　　　　　　　　　　　　　　**Maximum : 100 marks**
　　　(180 Min)

Answer ALL questions in the same order.

	Pages (Max.)	Time (Max.)	Marks (Max.)

I. Essay:

1. Mention the nuclei, course, relations and distribution of Vagus nerve.	9	15	10
2. Describe the microscopic anatomy of Small Intestine.	9	15	10

II. Short Questions:

1. Matrix of hyaline cartilage	3	8	5
2. Method of honing a knife	3	8	5
3. Histological features of interstitial cells of Leydig.	3	8	5
4. Ventral posterolateral nucleus of thalamus	3	8	5
5. Delafield's haematoxylin	3	8	5
6. Use of Periodic Acid Schiff stain in Diagnostic work	3	8	5
7. Thyrotrophs of anterior lobe of pituitary.	3	8	5
8. Graafian follicle	3	8	5

III. Reasoning Out:

Each of the following questions has a stem followed by five options.
Mention whether the options are TRUE or FALSE and mention the
REASON.

1.The jejunum has
   a) Villi
   b) Crypts of Lieberkuhn
   c) Valves of Kerkring
   d) Muscularis mucosa
   e) Peyer's patches in the lamina propria　　　　5　　10　　5
　　　　　　　　　　　　　　　　　　　　　　　　　(PTO)

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 2. Schwann cells
    a) Produce myelin for nerves in the peripheral nervous system
    b) Node of Ranvier is a segment of myelin produced

by a Schwann cell
c) A single Schwann cell can produce myelin sheath
   for only a single nerve fibre   5   10   5
d) Unmyelinated axons can be found invaginated into a Schwann cell
e) They develop from mesoderm

3. Paraffin wax
   a) It is the most commonly used wax
   b) It is a mixture of hydrocarbons
   c) Softer paraffin wax is used for friable tissues   5   10   5
   d) It is a water soluble wax
   e) It is used to embed nervous tissue

4. Microscopic structure of cerebrum
   a) Horizontal cells of Cajal are found in the molecular layer
   b) Cells of Martinotti are found in laminae VI
   c) Outer band of baillarger is prominent in the visual cortex   5   10   5
   d) Inner band of baillarger is found in lamina V
   e) Stellate cells are found throughout the cerebral cortex

IV. Very Short Answers :

1.	Name two features of an osteoblast.	1	4	2
2.	What is substantia propria of the cornea made up of?	1	4	2
3.	Name two stains used for collagen fibres.	1	4	2
4.	What fibres are found in the stroma of a gland?	1	4	2
5.	What is a sarcomere?	1	4	2
6.	What is stria vascularis?	1	4	2
7.	Name two functions of Sertoli cells.	1	4	2
8.	What is meant by resin embedding?	1	4	2
9.	Name two mounting media.	1	4	2
10.	Name two properties of Bouin's fluid.	1	4	2

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