B.Sc. Part-III Honours Examination'2020

DR KANAILAL BHATTACHARYYA COLLEGE

(AFFILIATED TO THE UNIVERSITY OF CALCUTTA)

Subject-Physiology (Honours)

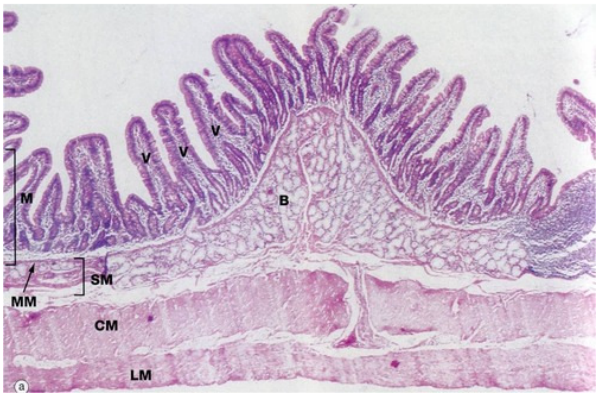
Paper- 8th (Practical)

Full Marks: 100 **Time: 2 hours**

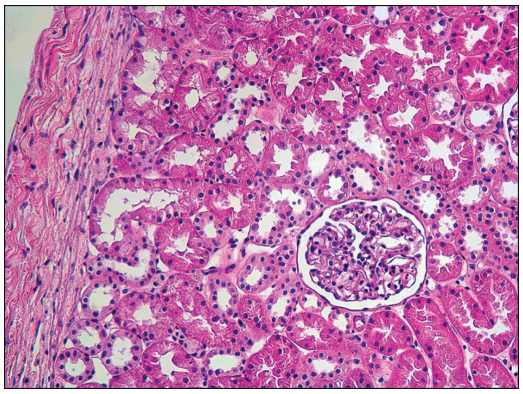
Q1. (a) State briefly the procedure of staining of the histological slides with Haematoxylene & Eosin (using a flow chart).

(b) Name one commonly used fixative and a clearing agent used in your laboratory.

(c) Identify the following histological slides with any two identifying characteristics of each.



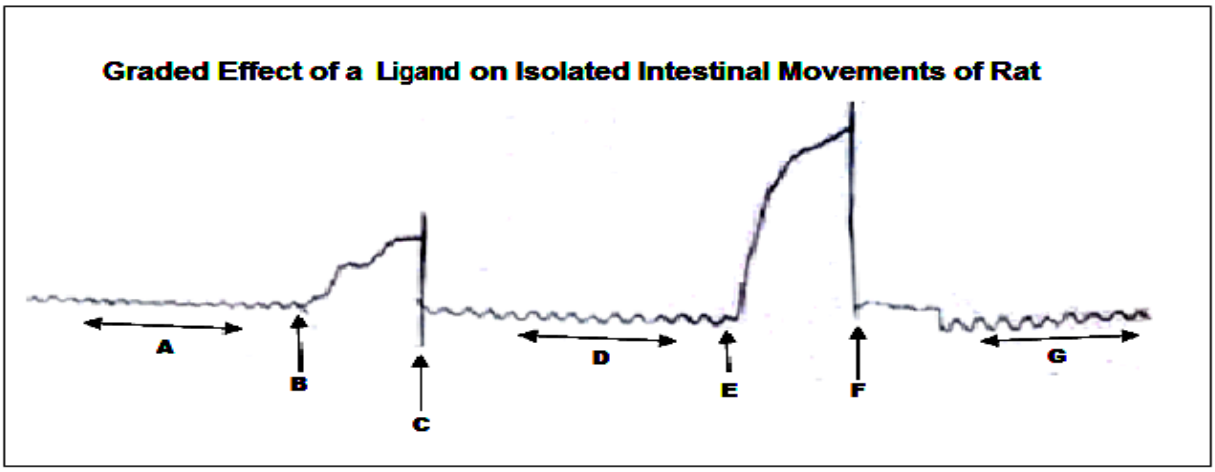
Slide- A



Slide B

10+2+ (4+4) =20

Q2. Given below is the kymographic recording of different doses of a bioactive ligand on isolated mammalian intestine in a Dale's experiment.



(a) Identify each component (a, b, c, d, e, f and g) of the recording.

(b) Write a brief note on the effects produced by this unknown ligand on the isolated intestine. Interpret your observation.

(c) State the composition of a 1 Litre working solution of Dale's fluid (In a tabular form). 7+ (5+4) +4 =20

Q3. (a) Give the formula of computation of Physical Fitness Index (PFI) in context to modified Harvard Step Test. Calculate PFI using the following values of first three recovery pulse rate (for 30 seconds) in a subject: 70, 55 and 44. Interpret your result.

(b) Calculate (Body Mass Index) from the following anthropometric measurements: Interpret your result.

Body Height: 155 cm. Body weight: 68 kg. (3+5+2)+ (4+1) =15

Q4. (a) Systolic blood pressure (SBP) of 9 normal individuals was recorded who had been recumbent for 5 minutes. Then 2 ml of 0.5% solution of a hypotensive drug was given and SBP recorded again. Did the injection of the drug have any significant effect on SBP?

	1	2	3	4	5	6	7	8	9
SBP before Injection (mm of Hg)	122	121	120	115	126	130	120	125	128
SBP after Injection (mm of Hg)	120	118	115	110	122	130	116	124	125

(b) In which condition computation of median is preferred over mean?

(c) Calculate the mode of following data of MUAC (cm) in children aged 4 months: 14, 11, 11, 10, 12, 13, 10, 14, 11, 11, 10, 12, 12, 13, 13, 11, 14, 12, 12, 12, 13, 12, 12, 13, 12.

10+5+5 =20

Q5. (a) Which method did you follow in your diet survey performed on your family?

(b) What is ACU?

(c) Mention briefly the findings of diet survey carried out on your family. (Report to be submitted).

(d) Briefly highlight the major findings of your field survey. (Report to be submitted).

2+2+ (2+3) + (3+3) =15

Q6. Lab Note Book 3+3+2+2= 10