



**PF-M20173**

Seat No. \_\_\_\_\_

**First Year M. B. B. S. Examination**

**July - 2018**

**Physiology : Paper - I**

Time : 3 Hours]

[Total Marks : 50

- Instructions :** (1) Write answers of each section in separate answer book.  
(2) Answers should be brief and draw necessary diagrams.  
(3) Illegible writing will not fetch any marks.  
(4) Figures to the right indicate full marks.

**SECTION - I**

- 1 Describe the acquired immune system. Also mention a note on immunological tolerance. 8
- OR**
- 1 Discuss the anticoagulant mechanism of the body. Also mention a note on haemorrhagic disorders. 8
- 2 Write notes on : 8
- (A) Transport of carbon dioxide **OR** Respiratory adaptations to exercise
- (B) Pancreatic secretions **OR** Movements of colon
- 3 (A) Describe the physiological significance of dietary fibres. 5
- (B) Explain in few sentences : 4
- (a) The term universal donor and recipient are no longer valid.
- (b) Normally intra-pleural pressure is always negative.
- (c) Salivary secretion increases even by thought of food.
- (d) Gastric mucosa is resistant to auto-digestion.

## SECTION - II

- 4 Define, classify and write stages of circulatory shock. 8  
Also discuss the pathophysiology of Hypovolemic shock.
- OR**
- 4 Describe the normal components of ECG and discuss 8  
its significance. Also write a note on various heart blocks.
- 5 Write notes on : 8  
(A) Counter current multiplier system **OR** Renal clearance  
(B) Non respiratory functions of respiratory system **OR**  
Pulmonary compliance
- 6 (A) Describe the physiological changes during 5  
High atmospheric pressure
- (B) Explain in few sentences : 4  
(a) Oedema develops in renal disease.  
(b) Dilated heart has to do more work than non  
dilated heart.  
(c) Severe hyperkalemia can lead to ventricular  
fibrillation  
(d) When body feels cold, shivering occurs.
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