

Date: 05-07-2013

0713 E037

First Year MBBS Examination

I MBBS Physiology Paper 1

Time: 3 hours

Max Marks: 50

Instructions: 1. Answer to the points. 2. Use separate answer books for each section. 3. Draw diagrams wherever necessary.

Section 1

1. Write briefly on (any two): (10)

a) Ionic basis of different phases of action potential in a nerve fibre. (768+782+783)
(49)

b) Mechanism of regulation of ECF volume and tonicity (427)(4)

c) Determinants of cardiac output and

factors affecting it. (599)(215)

2. Write briefly on (any two): (6)

a) Erythroblastosis foetalis (143) (169)

b) Stages of erythropoiesis (73) (104)

c) Haemophilia (137)(162)

3. Write briefly on (any on: (3)

a) Secondary active transport (35)(20)

b) Surfactant(715) (296)

4. Write briefly on (any on: (6)

a) Cystometrogram (342)(444)

b) Juxtaglomerular apparatus (311)(380)

c) Factors affecting GFR (317) (388)

Section 2

5. Write briefly on (any two): (10)

~~a) Pressure changes in left ventricle during~~

cardiac cycle (535) (206)

b) List the various mechanism of regulation of blood pressure. Describe any mid-term regulatory mechanism (605)(246)

c) Wave segments and intervals of normal ECG (553)(189)

6. Write briefly on (any two): (6)

a) Hypoxic hypoxia(756)(353)

b) Transport of carbon dioxide in blood (714)(332)

c) Draw a labeled spirogram (652)(301)

7. Write briefly on (any on: (3)

a) Physiological changes during acclimatization at high altitudes(770)(359)

b) Respiratory changes during exercise (751)(372)

8. Write answers in two or two sentences

(any six): (6)

- a) Coronary arteries are perfused during diastole. (630)(265)
- b) Lung alveoli are kept dry normally.
- c) Hyper osmolarity of renal medullary interstitial (326).(414)
- d) Clotting of blood does not occur in-vivo normally. (132,133)
- e) Ejection fraction. (535)(211)
- f) Chemotaxis. (101)(126)
- g) Erythropoetin. (75)(107)
- h) Dead space. (732)(318)
