

October-1997

MS 122

M.D. DEGREE EXAMINATION

Branch V - Physiology

(Revised Regulations)

Paper II - CIRCULATION, RESPIRATION,
ENVIRONMENTAL PHYSIOLOGY AND EXCRETION

Time: Three hours

Max. marks:100

Answer All Questions

1. What are the physiological responses on acute cold exposure? Describe the changes which take place during cold acclimatization. (25)
2. What is acute mountain sickness? Describe the cardiovascular and respiratory changes during high altitude pulmonary oedema. (25)
3. Write briefly on:
 - (a) Renin-angiotensin mechanism
 - (b) Functions of mechanoreceptors of the atria
 - (c) Pressure changes in the left ventricle during cardiac cycle and their relationship with EKG
 - (d) Effect of weightlessness on body functions
 - (e) Regulation of cerebral circulation.

(5x10=50)

April-1998

SV 124

M.D. DEGREE EXAMINATION

Branch V - Physiology

(New/Revised Regulations)

Paper II - CIRCULATION, RESPIRATION,
ENVIRONMENTAL PHYSIOLOGY AND EXCRETION

Time: Three hours

Max.marks:100

Answer All Questions

1. Describe the renal mechanisms concerned with Na^+ conservation. What are the consequences of excess loss of salt as it occurs in Addison's disease? (25)
2. Explain the various factors that contribute to the elastic recoil tendency of the lung. Correlate the respiratory problems in emphysema and respiratory distress syndrome with the role of these factors. (25)
3. Write briefly on:
 - (a) Treadmill testing for assessing cardiac function
 - (b) Valsalva manoeuvre
 - (c) Changes in the ECG pattern from V₁ to V₆ and their significance
 - (d) Body temperature regulation in a cold environment
 - (e) Special features of pulmonary circulation.

(5x10=50)

April-1999

[SG 124]

Sub. Code : 2022

M.D. DEGREE EXAMINATION.

Branch V — Physiology

(New/Revised Regulations)

Paper II — CIRCULATION, RESPIRATION,
ENVIRONMENTAL PHYSIOLOGY AND EXCRETION

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Describe the chemical regulation of respiration. (25)
 2. Discuss the mechanisms of formation of hypertonic urine. (25)
 1. Write briefly on : (5 × 10 = 50)
 - (a) Timed vital capacity.
 - (b) Oxygen dissociation curve.
 - (c) Radial pulse.
 - (d) Peripheral resistance.
 - (e) Physiology of micturition.
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October-2000

[KC 124]

Sub. Code : 2021

M.D. DEGREE EXAMINATION.

(New/Revised Regulations)

Branch V — Physiology

Paper II — CIRCULATION, RESPIRATION,
ENVIRONMENTAL PHYSIOLOGY AND EXCRETION

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the mechanisms that help to regulate mean arterial blood pressure soon after blood loss. (25)
2. Describe in detail the steps in the formation of urine and explain the importance of each process. (25)
3. Give the basis of
 - (a) Differences in ventilation-perfusion ratios between the apices and bases of lungs
 - (b) Hyperpnoea in (i) high altitudes (ii) muscular exercise
 - (c) Changes in respiration on inhaling irritant fumes
 - (d) Automatic bladder
 - (e) Abnormal sounds in cardiovascular system.

× 10 = 50)