

M.B.B.S DEGREE EXAMINATION

July- 2019

First M.B.B.S Examination

PHYSIOLOGY

PAPER - I

Time: 2½ Hours

1. Draw the labelled diagram of the conduction system of heart. Explain the pathway and its importance. Add a note on cardiac action potential. [2 + 6 = 8]

Sembulingam (8th Edn): 573 | L Prakasam Reddy (6th Edn): 339, 343 | G.K.Pal (2nd Edn): 367 (Vol-2)

2. Describe the mechanism of formation of concentrated urine. Add a note on Diuretics? [7 + 3 = 10]

Sembulingam (8th Edn): 339 | L Prakasam Reddy (6th Edn): 664, 677 | A.K.Jain (8th Edn): 516 (Vol-1) | G.K.Pal (2nd Edn): 754, 766

WRITE SHORT NOTE ON

Erythropoiesis

Sembulingam (8th Edn): 72 | L Prakasam Reddy (6th Edn): 288 | A.K.Jain (8th Edn): 66 (Vol-1) | G.K.Pal (2nd Edn): 95

4. Transport mechanism across the cell membrane.

Sembulingam (8th Edn): 31 | L Prakasam Reddy (6th Edn): 23-31 | A.K.Jain (8th Edn): 14 (Vol-1) | G.K.Pal (2nd Edn): 46 (Vol-1)

5. Define hypoxia. Explain the types with examples.

Sembulingam (8th Edn): 782 | L Prakasam Reddy (6th Edn): 613 | A.K.Jain (8th Edn): 450 (Vol-1) | G.K.Pal (2nd Edn): 585 (Vol-1)

6. Describe the movements of small intestine.

Sembulingam (8th Edn): 286 | L Prakasam Reddy (6th Edn): 527-529 | A.K.Jain (8th Edn): 249 (Vol-1) | G.K.Pal (2nd Edn): 697 (Vol-1)

7. Intercellular connections.

WRITE BRIEFLY ON

Defined dead space and give its importance.

Sembulingam (8th Edn): 757 | L Prakasam Reddy (6th Edn): 579 | A.K.Jain (8th Edn): 418 (Vol-1) | G.K.Pal (2nd Edn): 538 (Vol-1)

9. Functions of plasma proteins.

Sembulingam (8th Edn): 63 | L Prakasam Reddy (6th Edn): 328 | A.K.Jain (8th Edn): 54 (Vol-1) | G.K.Pal (2nd Edn): 77-78 (Vol-1)

10. Functions of large intestine.

Sembulingam (8th Edn): 276 | L Prakasam Reddy (6th Edn): 530 | A.K.Jain (8th Edn): 256 (Vol-1) | G.K.Pal (2nd Edn): 366 | L Prakasam Reddy (6th Edn): 692 | A.K.Jain (8th Edn): 545 (Vol-1)

11. Parasympathetic innervation of urinary bladder.

Sembulingam (8th Edn): 366 | L Prakasam Reddy (6th Edn): 692 | A.K.Jain (8th Edn): 545 (Vol-1) | G.K.Pal (2nd Edn): 786 (Vol-2)

12. Name the methods of measurement of cardiac output.

Sembulingam (8th Edn): 623 | L Prakasam Reddy (6th Edn): 414 | A.K.Jain (8th Edn): 337 (Vol-1) | G.K.Pal (2nd Edn): 406 (Vol-1)

Note : Answer all questions : Illustrate your answer with suitable diagrams.

1. Discuss the connections and functions of Basal Ganglia. And add a note on Parkinsonism? [1 + 7 + 2 = 10]

Sembulingam (8th Edn): 950, 951, 953 | L Prakasam Reddy (6th Edn): 172-173 | A.K.Jain (8th Edn): 878 (Vol-2) | G.K.Pal (2nd Edn): 1137, 1138, 1149

2. Name the adrenocortical hormones. Discuss glucocorticoids actions and mechanism of action in detail. And add a note on its applied aspects? [1 + 7 + 2 = 10]

Sembulingam (8th Edn): 456, 460, 463 | L Prakasam Reddy (6th Edn): 766, 769 | A.K.Jain (8th Edn): 616, 617, 621 (Vol-2) | G.K.Pal (2nd Edn): 303, 315 (Vol-2)

WRITE SHORT NOTE ON

Endometrial cycle.

Sembulingam (8th Edn): 519 | L Prakasam Reddy (6th Edn): 230 | A.K.Jain (8th Edn): 764, 765 (Vol-2) | G.K.Pal (2nd Edn): 925 (Vol-2)

Stretch reflex.

Sembulingam (8th Edn): 931 | L Prakasam Reddy (6th Edn): 134 | A.K.Jain (8th Edn): 237 (Vol-2) | G.K.Pal (2nd Edn): 1107 (Vol-2)

Pathways for pain sensation.

Sembulingam (8th Edn): 948 | L Prakasam Reddy (6th Edn): 142 | A.K.Jain (8th Edn): 239 (Vol-2) | G.K.Pal (2nd Edn): 1063 (Vol-2)

Functions of parathyroid hormone.

Sembulingam (8th Edn): 428 | L Prakasam Reddy (6th Edn): 761 | A.K.Jain (8th Edn): 502 (Vol-2) | G.K.Pal (2nd Edn): 921 (Vol-2)

Hemisection of spinal cord.

Sembulingam (8th Edn): 890, 891 | A.K.Jain (8th Edn): 224, 225 (Vol-2) | G.K.Pal (2nd Edn): 1190 (Vol-2)

WRITE BRIEFLY ON

Hormonal functions of placenta.

Sembulingam (8th Edn): 541-542 | L Prakasam Reddy (6th Edn): 843 | A.K.Jain (8th Edn): 723 (Vol-2) | G.K.Pal (2nd Edn): 1099 (Vol-2)

Features of Cretinism.

Sembulingam (8th Edn): 424 | L Prakasam Reddy (6th Edn): 754 | A.K.Jain (8th Edn): 535 (Vol-2) | G.K.Pal (2nd Edn): 857 (Vol-2)

Olfactory pathway.

Sembulingam (8th Edn): 1107 | L Prakasam Reddy (6th Edn): 870 | A.K.Jain (8th Edn): 540 (Vol-2) | G.K.Pal (2nd Edn): 1278 (Vol-2)

Impedance matching.

Sembulingam (8th Edn): 1096 | L Prakasam Reddy (6th Edn): 876 | A.K.Jain (8th Edn): 558 (Vol-2) | G.K.Pal (2nd Edn): 1260 (Vol-2)

Accommodation reflex

Sembulingam (8th Edn): 1075 | L Prakasam Reddy (6th Edn): 907 | A.K.Jain (8th Edn): 560 (Vol-2) | G.K.Pal (2nd Edn): 1245 (Vol-2)

M.B.B.S DEGREE EXAMINATION

October / November - 2018

First M.B.B.S Examination**PHYSIOLOGY****PAPER-I****Time: 2½ Hours****Note : Answer all questions : Illustrate your answer with suitable diagrams.****Max. Marks: 50**

- 1. Describe the composition, functions and regulation of exocrine pancreatic juice. [10]**

Sembulingam (8th Edn): 249, 252 | L. Prakasam Reddy (6th Edn): 513 | A.K Jain (8th Edn): 233 (Vol-1) | G.K Pal (2nd Edn) : 850, 652 (Vol-2)

- 2. Explain in details the neural regulation of respiration and add a note on sleep apnoea. [10]**

*Sembulingam (8th Edn): 773 | L. Prakasam Reddy (6th Edn): 601-610, 618 | A.K Jain (8th Edn): 435, 445 (Vol-1) | G.K Pal (2nd Edn) : 567, 570, 578***WRITE SHORT NOTE ON**

- 3. Megaloblastic anaemia, cause and features. [5 × 4 = 20]**

Sembulingam (7th Edn): 95 | A.K Jain (7th Edn): 72 (Vol-1)

- 4. Oxygen dissociative curve. [5 × 4 = 20]**

Sembulingam (8th Edn): 769 | L. Prakasam Reddy (6th Edn): 594 | A.K Jain (8th Edn): 425, 426 (Vol-1) | G.K Pal (2nd Edn) : 556 (Vol-2)

- 5. Define GFR and explain in detail the factors affecting it. [5 × 4 = 20]**

Sembulingam (8th Edn): 330 | L. Prakasam Reddy (6th Edn): 652 | A.K Jain (8th Edn): 448 (Vol-1) | G.K Pal (2nd Edn) : 733 (Vol-2)

- 6. Draw a neat labelled diagram showing ECG waves and intervals and add a note on Einthoven's law. [5 × 4 = 20]**

Sembulingam (8th Edn): 583 | L. Prakasam Reddy (6th Edn): 383 | A.K Jain (8th Edn): 294 (Vol-1) | G.K Pal (2nd Edn) : 371 (Vol-2)

- 7. Intrinsic mechanism of coagulation. [5 × 4 = 20]**

*Sembulingam (8th Edn): 134 | L. Prakasam Reddy (6th Edn): 332-338 | A.K Jain (8th Edn): 98 (Vol-1) | G.K Pal (2nd Edn) : 206 (Vol-2)***WRITE BRIEFLY ON**

- Post prandial alkaline tide. [5 × 2 = 10]**

- 9. Surfactant, composition and functions. [5 × 2 = 10]**

Sembulingam (8th Edn): 741 | L. Prakasam Reddy (6th Edn): 577 | A.K Jain (8th Edn): 411, 412 (Vol-1) | G.K Pal (2nd Edn) : 528 (Vol-2)

- 10. Lawplace law. [5 × 2 = 10]**

Sembulingam (8th Edn): 102 | A.K Jain (8th Edn): 318 (Vol-1) | G.K Pal (2nd Edn) : 425 (Vol-1) | G.K Pal (2nd Edn) : 528 (Vol-2)

- 11. Eosinophil. [5 × 2 = 10]**

Sembulingam (8th Edn): 632 | A.K Jain (8th Edn): 83 (Vol-1) | G.K Pal (2nd Edn) : 145 (Vol-1) | G.K Pal (2nd Edn) : 1108 (Vol-2)

- 12. Define Homeostasis and name the various feedback mechanisms. [5 × 2 = 10]**

*Sembulingam (8th Edn): 330 | L. Prakasam Reddy (6th Edn): 625 | A.K Jain (8th Edn): 4 (Vol-1) | G.K Pal 11 (Vol-1)***N T R U H S****M.B.B.S DEGREE EXAMINATION**

October / November - 2018

First M.B.B.S Examination**PHYSIOLOGY****PAPER - II****Max. Marks: 50**

- 1. Describe the pain pathway in detail. Add a note on referred pain. What is Gating Theory of pain. [10]**

Sembulingam (8th Edn): 906, 908, 907, 910 | L. Prakasam Reddy (6th Edn): 148, 150, 152 | A.K Jain (8th Edn): 789, 791, 792 (Vol-1) | G.K Pal (2nd Edn) : 1066, 1068, 1070, 1071

- 2. Discuss the synthesis and functions of thyroxine. Add a note on Myxoedema. [10]**

*Sembulingam (8th Edn): 418, 422, 423 | L. Prakasam Reddy (6th Edn): 747, 754 | A.K Jain (8th Edn): 586, 595 (Vol-2) | G.K Pal (2nd Edn) : 845, 856 (Vol-2)***WRITE SHORT NOTE ON [5 × 4 = 20]**

- 3. Endometrial cycle. [5 × 4 = 20]**

Sembulingam (8th Edn): 519 | L. Prakasam Reddy (6th Edn): 830 | A.K Jain (8th Edn): 704, 702 (Vol-2) | G.K Pal (2nd Edn) : 985 (Vol-2)

- 4. Neuromuscular transmission of impulses. [5 × 4 = 20]**

Sembulingam (8th Edn): 205-208 | L. Prakasam Reddy (6th Edn): 70 | A.K Jain (8th Edn): 155 (Vol-1) | G.K Pal (2nd Edn) : 250, 253 (Vol-1)

- 5. Role of hypothalamus in temperature regulation. [5 × 4 = 20]**

Sembulingam (8th Edn): 926 | L. Prakasam Reddy (6th Edn): 219 | A.K Jain (8th Edn): 888 (Vol-2) | G.K Pal (2nd Edn) : 1159 (Vol-2)

- 6. Functions of middle ear. [5 × 4 = 20]**

Sembulingam (8th Edn): 1088 | L. Prakasam Reddy (6th Edn): 875 | A.K Jain (8th Edn): 951 (Vol-2) | G.K Pal (2nd Edn) : 1260 (Vol-2)

- 7. Stages of spermatogenesis. [5 × 4 = 20]**

*Sembulingam (8th Edn): 491 | L. Prakasam Reddy (6th Edn): 815 | A.K Jain (8th Edn): 683 (Vol-2) | G.K Pal (2nd Edn) : 961***WRITE BRIEFLY ON**

- 8. Corpus luteum. [5 × 2 = 10]**

Sembulingam (8th Edn): 518 | L. Prakasam Reddy (6th Edn): 701 | A.K Jain (8th Edn): 701 (Vol-2) | G.K Pal (2nd Edn) : 980, 981 (Vol-2)

- 9. Functions of cerebrospinal fluid. [5 × 2 = 10]**

Sembulingam (8th Edn): 176 | L. Prakasam Reddy (6th Edn): 77 | A.K Jain (8th Edn): 161 (Vol-1) | G.K Pal (2nd Edn) : 259 (Vol-1)

- 10. Sarcomere. [5 × 2 = 10]**

Sembulingam (8th Edn): 518 | L. Prakasam Reddy (6th Edn): 769 (Vol-1) | G.K Pal (2nd Edn) : 262 | A.K Jain (8th Edn): 365 (Vol-1) | G.K Pal (2nd Edn) : 1210, 1212

- 11. Reflex Arc. [5 × 2 = 10]**

Sembulingam (8th Edn): 828 | L. Prakasam Reddy (6th Edn): 125 | A.K Jain (8th Edn): 769 (Vol-1) | G.K Pal (2nd Edn) : 1108 (Vol-2)

- 12. Diabetes Mellitus. [5 × 2 = 10]**

Sembulingam (8th Edn): 451 | L. Prakasam Reddy (6th Edn): 745 | A.K Jain (8th Edn): 650 (Vol-2) | G.K Pal (2nd Edn) : 906 (Vol-2)

M.B.B.S DEGREE EXAMINATION

August - 2018

First M.B.B.S Examination

PHYSIOLOGY

PAPER-I

Time: 2½ Hours

Note : Answer all questions. Illustrate your answer with suitable diagram.

1. Define and give normal value of cardiac output. Briefly explain the factors regulating it. Add a note on its measurement. [2 + 6 + 2 = 10]

Sembulingam (8th Edn): 612 | L. Prakasam Reddy (6th Edn): 414 | A.K.Jain (8th Edn): 117 (Vol-1)

G.K. Pal (2nd Edn) (Vol-1): 401, 403, 408, 411

2. Explain the mechanisms of formation of concentrated urine. Add a note on diuresis. [7 + 3 = 10]

Sembulingam (8th Edn): 540 | L. Prakasam Reddy (6th Edn): 664, 677 | A.K.Jain (8th Edn): 316 (Vol-1)

G.K. Pal (2nd Edn) (Vol-2): 736

WRITE SHORT NOTE ON

Enterohepatic circulation.

Sembulingam (8th Edn): 280 | L. Prakasam Reddy (6th Edn): 522 | A.K.Jain (8th Edn): 239, 240 (Vol-1)

G.K. Pal (2nd Edn) (Vol-1): 665

4. Hazards of mismatched blood transfusion.

Sembulingam (8th Edn): 351 | A.K.Jain (8th Edn): 110 (Vol-1)

G.K. Pal (2nd Edn) (Vol-1): 129

5. Lung compliance

Sembulingam (8th Edn): 744 | L. Prakasam Reddy (6th Edn): 574 | A.K.Jain (8th Edn): 413 (Vol-1)

G.K. Pal (2nd Edn) (Vol-1): 514

6. Triple response

Sembulingam (8th Edn): 700 | L. Prakasam Reddy (6th Edn): 463 | A.K.Jain (8th Edn): 372 (Vol-1)

7. Active transport across the cell membrane.

Sembulingam (8th Edn): 35 | L. Prakasam Reddy (6th Edn): 26 | A.K.Jain (8th Edn): 18 (Vol-1)

G.K. Pal (2nd Edn) (Vol-1): 51

WRITE BRIEFLY ON

Functions of large intestine.

Sembulingam (8th Edn): 276 | L. Prakasam Reddy (6th Edn): 530 | A.K.Jain (8th Edn): 256 (Vol-1)

9. Wenckebach phenomenon.

Sembulingam (8th Edn): 612 | L. Prakasam Reddy (6th Edn): 390 | A.K.Jain (8th Edn): 301 (Vol-1)

10. Functions of reticuloendothelial system.

Sembulingam (8th Edn): 154 | L. Prakasam Reddy (6th Edn): 313 | G.K. Pal (2nd Edn) (Vol-1): 149

11. Renal threshold for glucose.

Sembulingam (8th Edn): 317 | L. Prakasam Reddy (6th Edn): 868

12. Intrapleural pressure.

Sembulingam (8th Edn): 742, 743 | L. Prakasam Reddy (6th Edn): 572 | A.K.Jain (8th Edn): 405 (Vol-1)

G.K. Pal (2nd Edn) (Vol-1): 519

Max. Marks: 50

M.B.B.S DEGREE EXAMINATION

August - 2018

First M.B.B.S Examination

PHYSIOLOGY

PAPER-II

Max. Marks: 50

1. Define synapse. Discuss synaptic transmission of impulses in detail. Mention any four properties of synapse. [1 + 7 + 2 = 10]
- Sembulingam (8th Edn): 571 | L. Prakasam Reddy (6th Edn): 711 | A.K.Jain (8th Edn): 730 (Vol-2)
- G.K. Pal (2nd Edn) (Vol-1): 1013
- G.K. Pal (2nd Edn) (Vol-2): 1013
2. Name the pancreatic hormones. Describe in detail functions of insulin, Add a note on its applied aspects. [1 + 7 + 2 = 10]
- Sembulingam (8th Edn): 440 | L. Prakasam Reddy (6th Edn): 516 | A.K.Jain (8th Edn): 650 (Vol-2)
- G.K. Pal (2nd Edn) (Vol-2): 888

WRITE SHORT NOTE ON

Milk ejection reflex

- Sembulingam (8th Edn): 409 | L. Prakasam Reddy (6th Edn): 843 | A.K.Jain (8th Edn): 579 (Vol-2)
- G.K. Pal (2nd Edn) (Vol-2): 891
4. Taste pathway
- Sembulingam (8th Edn): 1104 | L. Prakasam Reddy (6th Edn): 887 | A.K.Jain (8th Edn): 948 (Vol-2)
- G.K. Pal (2nd Edn) (Vol-2): 1233
5. Muscle spindle
- Sembulingam (8th Edn): 981 | L. Prakasam Reddy (6th Edn): 140 | G.K. Pal (2nd Edn) (Vol-2): 1103
6. Functions of cerebellum
- Sembulingam (8th Edn): 946 | L. Prakasam Reddy (6th Edn): 192 | A.K.Jain (8th Edn): 880 (Vol-2)
- G.K. Pal (2nd Edn) (Vol-2): 1147
7. Organ of corti
- Sembulingam (8th Edn): 1090 | L. Prakasam Reddy (6th Edn): 879 | A.K.Jain (8th Edn): 953 (Vol-2)
- G.K. Pal (2nd Edn) (Vol-2): 1261

[5 × 2 = 10]

WRITE BRIEFLY ON

Intra uterine contraceptive device

8. Sembulingam (8th Edn): 551 | L. Prakasam Reddy (6th Edn): 849 | A.K.Jain (8th Edn): 713 (Vol-2)
- G.K. Pal (2nd Edn) (Vol-2): 1021
9. Parkinsonism
- Sembulingam (8th Edn): 953 | L. Prakasam Reddy (6th Edn): 183 | A.K.Jain (8th Edn): 878 (Vol-2)
- G.K. Pal (2nd Edn) (Vol-2): 1140
10. Myasthenia gravis
- Sembulingam (8th Edn): 218 | L. Prakasam Reddy (6th Edn): 73 | A.K.Jain (8th Edn): 157 (Vol-2)
- G.K. Pal (2nd Edn) (Vol-2): 253
11. All or none law
- Sembulingam (8th Edn): 574 | L. Prakasam Reddy (6th Edn): 374 | A.K.Jain (8th Edn): 182 (Vol-2)
- G.K. Pal (2nd Edn) (Vol-2): 357
12. Diabetes insipidus
- Sembulingam (8th Edn): 457 | L. Prakasam Reddy (6th Edn): 223 | A.K.Jain (8th Edn): 880 (Vol-2)
- G.K. Pal (2nd Edn) (Vol-2): 905

M.B.B.S DEGREE EXAMINATION

July - 2018

**First M.B.B.S Examination
PHYSIOLOGY
PAPER - I****Time: 2½ Hours****Note : Answer all questions : Illustrate your answer with suitable diagrams.****Max. Marks: 50**

1. Draw a neat diagram showing the structure of respiratory membrane and write the hemodynamic factors influencing the exchange of gases across the membrane. [10]
- Sembulingam (8th Edn): 331 | L. Prakasam Reddy (6th Edn): 383-584 | A.K Jain (8th Edn): 397, 403, 405 (Vol-1)*
G.K Pal (2nd Edn) (Vol-2): 734

2. Define GFR and describe in detail the factors influencing glomerular filtration. [10]
- Sembulingam (8th Edn): 331 | L. Prakasam Reddy (6th Edn): 649-651 | A.K Jain (8th Edn): 488 (Vol-1)*
G.K Pal (2nd Edn) (Vol-2): 1159

[5 × 4 = 20] WRITE SHORT NOTE ON

3. Lymph [5 × 4 = 20]
- Sembulingam (8th Edn): 160 | L. Prakasam Reddy (6th Edn): 355 | A.K Jain (8th Edn): 116 (Vol-1)*
G.K Pal (2nd Edn) (Vol-1): 213

4. Functions of bile [5 × 4 = 20]
- Sembulingam (8th Edn): 209, 260 | L. Prakasam Reddy (6th Edn): 522 | A.K Jain (8th Edn): 237, 241 (Vol-1)*
G.K Pal (2nd Edn) (Vol-1): 655

5. Heart sounds [5 × 4 = 20]
- Sembulingam (8th Edn): 589 | L. Prakasam Reddy (6th Edn): 401, 402 | A.K Jain (8th Edn): 290 (Vol-1)*
G.K Pal (2nd Edn) (Vol-1): 397

6. Positive feedback mechanism [5 × 4 = 20]
- Sembulingam (8th Edn): 45 | L. Prakasam Reddy (6th Edn): 48 | A.K Jain (8th Edn): 4 (Vol-1)*
G.K Pal (2nd Edn) (Vol-1): 11

7. Hamburger shift [5 × 2 = 10]
- Sembulingam (8th Edn): 768, 769 | L. Prakasam Reddy (6th Edn): 599 | A.K Jain (8th Edn): 425 (Vol-1)*
G.K Pal (2nd Edn) (Vol-1): 554

[5 × 2 = 10] WRITE BRIEFLY ON

8. Exocytosis [5 × 2 = 10]
- Sembulingam (8th Edn): 40 | L. Prakasam Reddy (6th Edn): 30 | A.K Jain (8th Edn): 21 (Vol-1)*
G.K Pal (2nd Edn) (Vol-1): 56

9. Carotid body [5 × 2 = 10]
- L. Prakasam Reddy (6th Edn): 607 | A.K Jain (8th Edn): 440 (Vol-1) | G.K Pal (2nd Edn) (Vol-1): 570*

10. Erythropoietin [5 × 2 = 10]
- Sembulingam (8th Edn): 475 | L. Prakasam Reddy (6th Edn): 290 | A.K Jain (8th Edn): 507 (Vol-1)*
G.K Pal (2nd Edn) (Vol-1): 735

11. End diastolic volume [5 × 2 = 10]
- Sembulingam (8th Edn): 587 | L. Prakasam Reddy (6th Edn): 393, 398, 414 | A.K Jain (8th Edn): 181 (Vol-1)*
G.K Pal (2nd Edn) (Vol-1): 394, 395

12. Extracellular fluid [5 × 2 = 10]
- Sembulingam (8th Edn): 51 | L. Prakasam Reddy (6th Edn): 41 | A.K Jain (8th Edn): 27 (Vol-1)*
G.K Pal (2nd Edn) (Vol-1): 67

M.B.B.S DEGREE EXAMINATION

July - 2018

**First M.B.B.S Examination
PHYSIOLOGY
PAPER - II****Max. Marks: 50**

1. Describe in detail the synthesis, storage and release of thyroxine. [10]
- Sembulingam (8th Edn): 416, 418, 422 | L. Prakasam Reddy (6th Edn): 747 | A.K Jain (8th Edn): 586 (Vol-1)*
G.K Pal (2nd Edn) (Vol-2): 845, 856

2. Describe the connections and functions of thalamus. [10]
- Sembulingam (8th Edn): 925, 926 | L. Prakasam Reddy (6th Edn): 164, 165 | A.K Jain (8th Edn): 888 (Vol-2)*
G.K Pal (2nd Edn) (Vol-2): 1158, 1159

[5 × 4 = 20] WRITE SHORT NOTE ON

3. Spermatogenesis [5 × 4 = 20]
- Sembulingam (8th Edn): 491 | L. Prakasam Reddy (6th Edn): 815 | A.K Jain (8th Edn): 683 (Vol-2)*
G.K Pal (2nd Edn) (Vol-2): 961

4. Pupillary reflexes [5 × 4 = 20]
- Sembulingam (8th Edn): 1072 | L. Prakasam Reddy (6th Edn): 980 (Vol-2)*
G.K Pal (2nd Edn) (Vol-2): 1245

5. Dorsal column pathway and its functions [5 × 4 = 20]
- Sembulingam (8th Edn): 1062 | A.K Jain (8th Edn): 783 (Vol-2) | G.K Pal (2nd Edn) (Vol-2): 1060*

6. Metabolic functions of cortisol [5 × 4 = 20]
- Sembulingam (8th Edn): 444, 445 | L. Prakasam Reddy (6th Edn): 769-772 | A.K Jain (8th Edn): 644 (Vol-2)*
G.K Pal (2nd Edn) (Vol-2): 806

7. Paroxysmal agitations [5 × 4 = 20]
- Sembulingam (8th Edn): 953 | L. Prakasam Reddy (6th Edn): 183 | A.K Jain (8th Edn): 882 (Vol-2)*
G.K Pal (2nd Edn) (Vol-2): 1140

[5 × 2 = 10] WRITE BRIEFLY ON

8. Any two tests for pregnancy [5 × 2 = 10]
- Sembulingam (8th Edn): 544 | L. Prakasam Reddy (6th Edn): 837 | A.K Jain (8th Edn): 721 (Vol-2)*

9. Rheobase [5 × 2 = 10]
- Sembulingam (8th Edn): 181 | L. Prakasam Reddy (6th Edn): 89 | A.K Jain (8th Edn): 40 (Vol-2)*

10. Chromatolysis [5 × 2 = 10]
- Sembulingam (8th Edn): 822, 968 | L. Prakasam Reddy (6th Edn): 68 | A.K Jain (8th Edn): 135, 149 (Vol-2)*

11. Cretinism [5 × 2 = 10]
- Sembulingam (8th Edn): 424 | L. Prakasam Reddy (6th Edn): 754 | A.K Jain (8th Edn): 593 (Vol-2)*
G.K Pal (2nd Edn) (Vol-2): 837

12. Castration [5 × 2 = 10]
- L. Prakasam Reddy (6th Edn): 820*

M.B.B.S DEGREE EXAMINATION

August - 2017

**First M.B.B.S Examination
PHYSIOLOGY
PAPER - I****N T R U H S****Time: 2½ Hours****Note : Answer all questions : Illustrate your answer with suitable diagrams.****Max. Marks: 50**

1. Define mean arterial blood pressure. Describe the various factors regulating it. **[2 + 8 = 10]**

Sembulingam (8th Edn): 651, 652 | L.P.R (6th Edn): 440 | A.K.Jain (8th Edn) (Vol-I): 344 | G.K.Pal (2nd Edn) (Vol-I): 429

2. Briefly describe ABO blood group system. Mention the effects of mismatched blood transfusion. Write briefly about erythroblastosis foetalis. **[5 + 2 + 3 = 10]**

*Sembulingam (8th Edn): 143, 144 | L.P.R (6th Edn): 346-352 | A.K.Jain (8th Edn) (Vol-I): 106, 110 | G.K.Pal (2nd Edn) (Vol-I): 121, 122***WRITE SHORT NOTE ON
Gastrointestinal hormones which influence pancreatic juice secretion.**

3. **[5 × 4 = 20]**

Sembulingam (8th Edn): 292 | L.P.R (6th Edn): 533 | A.K.Jain (8th Edn) (Vol-I): 275 | G.K.Pal (2nd Edn) (Vol-I): 621

4. What is normal body temperature? Describe thermoregulation in cold environment. **[5 × 4 = 20]**

Sembulingam (8th Edn): 383 | L.P.R (6th Edn): 712 | G.K.Pal (2nd Edn) (Vol-2): 1300 | L.P.R (6th Edn): 321 | A.K.Jain (8th Edn) (Vol-I): 123

5. Describe the role T-Lymphocytes in immunity. **[5 × 4 = 20]**

Sembulingam (8th Edn): 330 | L.P.R (6th Edn): 632 | A.K.Jain (8th Edn) (Vol-I): 488, 489 | G.K.Pal (2nd Edn) (Vol-I): 556

6. What is tubuloglomerular feedback and how it regulates the glomerular filtration rate? **[5 × 4 = 20]**

*Sembulingam (8th Edn): 330 | L.P.R (6th Edn): 594 | A.K.Jain (8th Edn) (Vol-I): 425, 426 | G.K.Pal (2nd Edn) (Vol-I): 733***7. Oxygen dissociation curve.**

- [5 × 2 = 10]**

*Sembulingam (8th Edn): 769 | L.P.R (6th Edn): 24 | A.K.Jain (8th Edn) (Vol-I): 15 | G.K.Pal (2nd Edn) (Vol-I): 48***WRITE BRIEFLY ON
Cardiac muscle action potential.**

- [5 × 2 = 10]**

L.P.R (6th Edn): 372 | A.K.Jain (8th Edn) (Vol-I): 178 | G.K.Pal (2nd Edn) (Vol-2): 356 | Facilitated diffusion.

9. **[5 × 2 = 10]**

*Sembulingam (8th Edn): 33 | L.P.R (6th Edn): 24 | A.K.Jain (8th Edn) (Vol-I): 15 | G.K.Pal (2nd Edn) (Vol-I): 48***10. Distribution of body fluids.**

- [5 × 2 = 10]**

*Sembulingam (8th Edn): 52 | L.P.R (6th Edn): 41 | A.K.Jain (8th Edn) (Vol-I): 27 | G.K.Pal (2nd Edn) (Vol-I): 66, 67***11. Hyaline membrane disease**

- [5 × 2 = 10]**

L.P.R (6th Edn): 578 | A.K.Jain (8th Edn) (Vol-I): 412 | Heart sounds.

- [5 × 2 = 10]**

Sembulingam (8th Edn): 589 | L.P.R (6th Edn): 401 | A.K.Jain (8th Edn) (Vol-I): 290 | G.K.Pal (2nd Edn) (Vol-I): 397

- [5 × 2 = 10]**

Sembulingam (8th Edn): 490 | L.P.R (6th Edn): 812 | A.K.Jain (8th Edn) (Vol-2): 683 | G.K.Pal (2nd Edn) (Vol-2): 936

- [5 × 2 = 10]**

Sembulingam (8th Edn): 1003 | L.P.R (6th Edn): 866 | A.K.Jain (8th Edn) (Vol-2): 980 | G.K.Pal (2nd Edn) (Vol-2): 1282

- [5 × 2 = 10]**

Sembulingam (8th Edn): 317 | L.P.R (6th Edn): 868 | Pupillary light reflex.

- [5 × 2 = 10]**

Sembulingam (8th Edn): 1072 | L.P.R (6th Edn): 900 | A.K.Jain (8th Edn) (Vol-2): 980 | G.K.Pal (2nd Edn) (Vol-2): 1245

- [5 × 2 = 10]**

Sembulingam (8th Edn): 1003 | L.P.R (6th Edn): 232 | A.K.Jain (8th Edn) (Vol-2): 873 | G.K.Pal (2nd Edn) (Vol-2): 1173

- [5 × 2 = 10]**

Sembulingam (8th Edn): 490 | L.P.R (6th Edn): 812 | A.K.Jain (8th Edn) (Vol-2): 683 | G.K.Pal (2nd Edn) (Vol-2): 936

M.B.B.S DEGREE EXAMINATION

August - 2016

First M.B.B.S Examination**PHYSIOLOGY****PAPER - I****T R U H S****Time: 2½ Hours****Note : Answer all questions : Illustrate your answer with suitable diagrams.**

1. What is hemoglobin and what are its functions? What factors are required for its formation and discuss catabolism of hemoglobin?

$$[2 + 2 + 3 + 3 = 10]$$

Sembulingam (8th Edn): 79, 83, 84 | L.P.R (6th Edn): 292-296 | A.K.Jain (8th Edn) (Vol-1): 58, 59, 60, 61 | G.K. Pal (2nd Edn) (Vol-1): 108, 109, 110, 111

2. Define cardiac output? How is it measured in man? Discuss the physiological factors influencing cardiac output?

$$[2 + 3 + 5 = 10]$$

Sembulingam (8th Edn): 619, 623, 621 | L.P.R (6th Edn): 414 | A.K.Jain (8th Edn) (Vol-1): 337 | G.K. Pal (2nd Edn) (Vol-1): 401, 403, 406, 411

WRITE SHORT NOTE ON**Active transport across cell membrane?**

Sembulingam (8th Edn): 35 | L.P.R (6th Edn): 26 | A.K.Jain (8th Edn) (Vol-1): 18 |

G.K. Pal (2nd Edn) (Vol-1): 51 |

Blood buffers in regulation of pH

Sembulingam (8th Edn): 346, 348 | L.P.R (6th Edn): 670 | A.K.Jain (8th Edn) (Vol-1): 532 |

G.K. Pal (2nd Edn) (Vol-1): 637

Chemical control of respiration

Sembulingam (8th Edn): 777 | L.P.R (6th Edn): 607 | A.K.Jain (8th Edn) (Vol-1): 440 |

G.K. Pal (2nd Edn) (Vol-1): 570

Regulation of body temperature.

Sembulingam (8th Edn): 383 | L.P.R (6th Edn): 712 | A.K.Jain (8th Edn) (Vol-1): 1005 |

G.K. Pal (2nd Edn) (Vol-2): 1300

WRITE BRIEFLY ON**Intrinsic mechanism of blood coagulation.**

Sembulingam (8th Edn): 134 | L.P.R (6th Edn): 334 | A.K.Jain (8th Edn) (Vol-1): 98 |

G.K. Pal (2nd Edn) (Vol-2): 205, 206

Functions of lymph.

Sembulingam (8th Edn): 161 | L.P.R (6th Edn): 354 | A.K.Jain (8th Edn) (Vol-1): 117 |

Filtration fraction

Sembulingam (8th Edn): 331 | L.P.R (6th Edn): 652 | A.K.Jain (8th Edn) (Vol-1): 490 |

G.K. Pal (2nd Edn) (Vol-2): 734

Ultra structure of respiratory membrane

Sembulingam (8th Edn): 762, 763 | L.P.R (6th Edn): 583 | A.K.Jain (8th Edn) (Vol-1): 397 |

Gap junctions.

Sembulingam (8th Edn): 28 | L.P.R (6th Edn): 13, 14 | A.K.Jain (8th Edn) (Vol-1): 10 |

G.K. Pal (2nd Edn) (Vol-1): 28

Max. Marks: 50

1. Describe the connections and functions of cerebellum. Write a note on dysdiadochokinesia?

$$[8 + 2 = 10]$$

Sembulingam (8th Edn): 936, 946, 948 | L.P.R (6th Edn): 180, 190, 192 | A.K.Jain (8th Edn) (Vol-2): 854 | G.K. Pal (2nd Edn) (Vol-2): 1145, 1147, 1149

2. Describe the functions of growth hormone. Add a note on effect of its hypersecretion.

$$[7 + 3 = 10]$$

Sembulingam (8th Edn): 403 | L.P.R (6th Edn): 736 | A.K.Jain (8th Edn) (Vol-2): 567 | G.K. Pal (2nd Edn) (Vol-2): 824, 825, 829

WRITE SHORT NOTE ON**Stretch and inverse stretch reflex**

Sembulingam (8th Edn): 981, 983 | L.P.R (6th Edn): 194, 127 | G.K. Pal (2nd Edn) (Vol-2): 1107, 1109 | G.K. Pal (2nd Edn) (Vol-2): 700, 701 |

Ovulation

Sembulingam (8th Edn): 517 | L.P.R (6th Edn): 826 | A.K.Jain (8th Edn) (Vol-2): 982 | G.K. Pal (2nd Edn) (Vol-2): 982

Scotopic and photopic vision

Sembulingam (8th Edn): 1056 | L.P.R (6th Edn): 913 | A.K.Jain (8th Edn) (Vol-2): 986 | G.K. Pal (2nd Edn) (Vol-2): 961

Spermatogenesis

Sembulingam (8th Edn): 491 | L.P.R (6th Edn): 815 | A.K.Jain (8th Edn) (Vol-2): 683 | G.K. Pal (2nd Edn) (Vol-2): 961

Excitation contraction coupling in skeletal muscles.

Sembulingam (8th Edn): 199 | L.P.R (6th Edn): 83 | A.K.Jain (8th Edn) (Vol-1): 164 | G.K. Pal (2nd Edn) (Vol-1): 264

WRITE BRIEFLY ON**Electroencephalogram (EEG)**

Sembulingam (8th Edn): 1001 | L.P.R (6th Edn): 234 | A.K.Jain (8th Edn) (Vol-2): 869 | G.K. Pal (2nd Edn) (Vol-2): 1169

Mechanism of action of insulin.

Sembulingam (8th Edn): 444 | L.P.R (6th Edn): 784 | A.K.Jain (8th Edn) (Vol-2): 644 | G.K. Pal (2nd Edn) (Vol-2): 896

Role of middle ear in hearing

Sembulingam (8th Edn): 1096 | L.P.R (6th Edn): 875 | A.K.Jain (8th Edn) (Vol-2): 951 | G.K. Pal (2nd Edn) (Vol-2): 1260

Oral contraceptives

Sembulingam (8th Edn): 554 | L.P.R (6th Edn): 850 | A.K.Jain (8th Edn) (Vol-2): 714 | G.K. Pal (2nd Edn) (Vol-2): 1022

Saltatory conduction.

Sembulingam (8th Edn): 830 | L.P.R (6th Edn): 61 | A.K.Jain (8th Edn) (Vol-1): 137, 143 | G.K. Pal (2nd Edn) (Vol-1): 241

M.B.B.S DEGREE EXAMINATION

August - 2015

First M.B.B.S Examination PHYSIOLOGY PAPER-I

Time: 2½ Hours

Note : Answer all questions : Illustrate your answer with suitable diagrams.

1. Define cardiac output? Describe the various factors regulating cardiac output. [2 + 8 = 10]

Sembulingam (8th Edn): 619, 623, 621 | L.P.R (6th Edn): 414 | A.K.Jain (8th Edn): 377 | G.K.Pal (2nd Edn) (Vol-I): 401, 403, 406, 411

2. Describe the mechanism of respiration. Define lung compliance. Mention any two conditions which reduce lung compliance. [5 + 3 + 2 = 10]

Sembulingam (8th Edn): 739, 744, 745 | L.P.R (6th Edn): 570 | A.K.Jain (8th Edn) (Vol-I): 403 | G.K.Pal (2nd Edn) (Vol-I): 516, 524

WRITE SHORT NOTE ON

- Define 'renal clearance'. What do PAH and inulin clearance indicate about renal function. [5 × 4 = 20]

Sembulingam (8th Edn): 357, 358 | L.P.R (6th Edn): 647 | A.K.Jain (8th Edn) (Vol-I): 506 | G.K.Pal (2nd Edn) (Vol-II): 734

4. Describe the fate of haemoglobin of the damaged RBCs following haemolysis. [L.P.R (6th Edn): 293 | A.K.Jain (8th Edn) (Vol-I): 60 | G.K.Pal (2nd Edn) (Vol-I-J): 104, 105 | Outline intrinsic pathway of clotting. Add a note on anticoagulants.

Sembulingam (8th Edn): 134, 137 | L.P.R (6th Edn): 335 | A.K.Jain (8th Edn) (Vol-I): 98 | G.K.Pal (2nd Edn) (Vol-I): 205, 206, 213

5. Enterohepatic circulation and its physiological importance.

Sembulingam (8th Edn): 260 | L.P.R (6th Edn): 522 | A.K.Jain (8th Edn) (Vol-I): 239, 240 | G.K.Pal (2nd Edn) (Vol-I): 665, 666

6. Functions, hormonal regulation of exocrine pancreatic secretion. [Sembulingam (8th Edn): 249, 252 | L.P.R (6th Edn): 513 | A.K.Jain (8th Edn) (Vol-I): 233 | G.K.Pal (2nd Edn) (Vol-I): 650, 652]

WRITE BRIEFLY ON

7. Define diffusion. Describe any four factors affecting diffusion in terms of Fick's law. [5 × 2 = 10]

Sembulingam (8th Edn): 31 | L.P.R (6th Edn): 583-586 | A.K.Jain (8th Edn) (Vol-I): 14 | G.K.Pal (2nd Edn) (Vol-I): 46, 48

8. Cause and normal duration of P-R interval

Sembulingam (8th Edn): 602 | L.P.R (6th Edn): 358 | A.K.Jain (8th Edn) (Vol-I): 296 | G.K.Pal (2nd Edn) (Vol-I): 374

9. Draw a diagram for innervation of the urinary bladder.

L.P.R (6th Edn): 692 | A.K.Jain (8th Edn) (Vol-I): 546 | G.K.Pal (2nd Edn) (Vol-2): 788

10. Explain the proximal tubular handling of Na⁺.

Sembulingam (8th Edn): 336 | L.P.R (6th Edn): 680 | A.K.Jain (8th Edn) (Vol-I): 495 | G.K.Pal (2nd Edn) (Vol-2): 742

11. Define ESR and mention its normal value. List any two factors that influence it. [5 × 2 = 10]

Sembulingam (8th Edn): 86, 87, 88 | L.P.R (6th Edn): 302 | G.K.Pal (2nd Edn) (Vol-I): 92, 93

12. Olfactory pathway.

Sembulingam (8th Edn): 1107 | L.P.R (6th Edn): 870 | A.K.Jain (8th Edn) (Vol-2): 949 | G.K.Pal (2nd Edn) (Vol-2): 1278

N T R U H S

M.B.B.S DEGREE EXAMINATION

August - 2015

First M.B.B.S Examination PHYSIOLOGY PAPER-II

Max. Marks: 50

1. Define the connections, functions and effects of cerebellar dysfunctions. [4 + 3 + 3 = 10]

Sembulingam (8th Edn): 936, 946 | L.P.R (6th Edn): 188, 190, 192 | A.K.Jain (8th Edn) (Vol-2): 354, 355 | G.K.Pal (2nd Edn) (Vol-2): 1145, 1147, 1149

2. Describe the actions and regulation of insulin. Explain the basis of polyphagia in diabetes mellitus. [5 + 3 + 3 = 10]

Sembulingam (8th Edn): 444, 445, 446, 453 | L.P.R (6th Edn): 785 | A.K.Jain (8th Edn) (Vol-2): 644 | G.K.Pal (2nd Edn) (Vol-2): 896, 908

WRITE SHORT NOTE ON

3. Define myopia. Explain the method of its correction. [5 × 4 = 20]

Sembulingam (8th Edn): 1083 | L.P.R (6th Edn): 907 | A.K.Jain (8th Edn) (Vol-2): 985 | G.K.Pal (2nd Edn) (Vol-2): 1229

4. Functions of middle ear.

Sembulingam (8th Edn): 1088 | L.P.R (6th Edn): 875 | A.K.Jain (8th Edn) (Vol-2): 951 | G.K.Pal (2nd Edn) (Vol-2): 1260

5. Dorsal column-medial lemniscus pathway and its functions. [5 × 2 = 10]

Sembulingam (8th Edn): 783 | A.K.Jain (8th Edn) (Vol-2): 783 | G.K.Pal (2nd Edn) (Vol-2): 1060

6. Features of crenism and its physiological basis.

Sembulingam (8th Edn): 424 | L.P.R (6th Edn): 734 | A.K.Jain (8th Edn) (Vol-2): 595 | G.K.Pal (2nd Edn) (Vol-2): 857

7. Actions of progesterone.

Sembulingam (8th Edn): 514 | L.P.R (6th Edn): 855 | A.K.Jain (8th Edn) (Vol-2): 699 | G.K.Pal (2nd Edn) (Vol-2): 995

WRITE BRIEFLY ON

8. Resting membrane potential. [5 × 2 = 10]

Sembulingam (8th Edn): 193 | L.P.R (6th Edn): 35 | A.K.Jain (8th Edn) (Vol-1): 35 | G.K.Pal (2nd Edn) (Vol-1): 61

9. Factors influencing spermatogenesis.

Sembulingam (8th Edn): 492 | L.P.R (6th Edn): 815 | A.K.Jain (8th Edn) (Vol-2): 683 | G.K.Pal (2nd Edn) (Vol-2): 964

10. Indicators of ovulation

L.P.R (6th Edn): 826 | A.K.Jain (8th Edn) (Vol-2): 809 | G.K.Pal (2nd Edn) (Vol-2): 983

11. Ageusia.

Sembulingam (8th Edn): 1106, 1122 | L.P.R (6th Edn): 242 | A.K.Jain (8th Edn) (Vol-2): 949 | G.K.Pal (2nd Edn) (Vol-2): 1286

12. Olfactory pathway.

Sembulingam (8th Edn): 1107 | L.P.R (6th Edn): 870 | A.K.Jain (8th Edn) (Vol-2): 949 | G.K.Pal (2nd Edn) (Vol-2): 1278

M.B.B.S DEGREE EXAMINATION

November - 2014

**First M.B.B.S Examination
PHYSIOLOGY
PAPER - I****N T R U H S****Time: 2½ Hours****Note : Answer all questions : Illustrate your answer with suitable diagrams.**

- 1.** Describe the following aspects of coronary blood flow: [3 + 3 + 4 = 10]
- Phasic flow
 - Metabolic regulation
 - Evidences of myocardial ischemia
- Sembulingam (8th Edn): 682, 683, 684 | L.P.R (6th Edn): 454-457 | A.K.Jain (8th Edn) (Vol-I): 356 | G.K.Pal (2nd Edn) (Vol-I): 478
- 2.** Describe the uptake, transport and delivery of oxygen. [2 + 6 + 2 = 10]
- Sembulingam (8th Edn): 768, 769, 770 | L.P.R (6th Edn): 593-597 | A.K.Jain (8th Edn) (Vol-I): 425 | G.K.Pal (2nd Edn) (Vol-I): 554
- WRITE SHORT NOTE ON**
- Abnormalities of haemoglobin synthesis**
- Sembulingam (8th Edn): 80, 81 | L.P.R (6th Edn): 293
- 3.** Abnormalities of haemoglobin synthesis
- Sembulingam (8th Edn): 146 | L.P.R (6th Edn): 351 | A.K.Jain (8th Edn) (Vol-I): 210 | G.K.Pal (2nd Edn) (Vol-I): 129
- 4.** Mismatched blood transfusion
- Sembulingam (8th Edn): 282 | L.P.R (6th Edn): 545 | A.K.Jain (8th Edn) (Vol-I): 210 | G.K.Pal (2nd Edn) (Vol-I): 129
- 5.** Role of esophageal sphincters
- Sembulingam (8th Edn): 368 | L.P.R (6th Edn): 695 | A.K.Jain (8th Edn) (Vol-I): 548 | G.K.Pal (2nd Edn) (Vol-I): 686
- 6.** Voluntary micturition
- Sembulingam (8th Edn): 358 | L.P.R (6th Edn): 652 | A.K.Jain (8th Edn) (Vol-I): 507 | G.K.Pal (2nd Edn) (Vol-I): 735
- 7.** Creatinine clearance
- Sembulingam (8th Edn): 373 | L.P.R (6th Edn): 679 | G.K.Pal (2nd Edn) (Vol-I): 766
- 8.** Loop diuretics
- Sembulingam (8th Edn): 608 | L.P.R (6th Edn): 385 | A.K.Jain (8th Edn) (Vol-I): 335 | G.K.Pal (2nd Edn) (Vol-I): 382
- 9.** Sinus arrhythmia
- Sembulingam (8th Edn): 41 | A.K.Jain (8th Edn) (Vol-I): 29 |
- 10.** Transcellular fluid
- Sembulingam (8th Edn): 52 | L.P.R (6th Edn): 41 | A.K.Jain (8th Edn) (Vol-I): 29 | G.K.Pal (2nd Edn) (Vol-I): 67
- 11.** Role of gastrin
- Sembulingam (8th Edn): 244 | L.P.R (6th Edn): 553 | A.K.Jain (8th Edn) (Vol-I): 218, 219 | G.K.Pal (2nd Edn) (Vol-I): 621
- 12.** Define active transport. Write the factors affecting it giving examples.
- Sembulingam (8th Edn): 35 | L.P.R (6th Edn): 26 | A.K.Jain (8th Edn) (Vol-I): 18 | G.K.Pal (2nd Edn) (Vol-I): 51

Max. Marks: 50

- 1.** Describe the connections and functions of prefrontal lobe. List the effects of its lesion.
- Sembulingam (8th Edn): 962, 963 | L.P.R (6th Edn): 245-246 | A.K.Jain (8th Edn) (Vol-I): 904 | G.K.Pal (2nd Edn) (Vol-I): 1206
- 2.** Describe the hormonal regulation of calcium metabolism. [6 + 4 = 10]
- Sembulingam (8th Edn): 433 | L.P.R (6th Edn): 764 | A.K.Jain (8th Edn) (Vol-I): 602 | G.K.Pal (2nd Edn) (Vol-I): 926
- WRITE SHORT NOTE ON**
- Visual pathway and effects of its lesions at various levels.**
- Sembulingam (8th Edn): 1066, 1067 | L.P.R (6th Edn): 915 | A.K.Jain (8th Edn) (Vol-I): 973 | G.K.Pal (2nd Edn) (Vol-I): 1235
- 3.** Cochlear microphonics.
- Sembulingam (8th Edn): 1098 | L.P.R (6th Edn): 884 | A.K.Jain (8th Edn) (Vol-I): 951 | G.K.Pal (2nd Edn) (Vol-I): 1271
- 4.** Pyramidal tract and effect of its lesion at internal capsule.
- Sembulingam (8th Edn): 882, 923 | L.P.R (6th Edn): 170 | A.K.Jain (8th Edn) (Vol-I): 800, 804 | G.K.Pal (2nd Edn) (Vol-I): 1114
- 5.** Acromegaly
- Sembulingam (8th Edn): 410 | L.P.R (6th Edn): 743 | A.K.Jain (8th Edn) (Vol-I): 571 | G.K.Pal (2nd Edn) (Vol-I): 829
- 6.** Puberty
- L.P.R (6th Edn): 809 | A.K.Jain (8th Edn) (Vol-I): 675 | G.K.Pal (2nd Edn) (Vol-I): 950
- WRITE BRIEFLY ON**
- Rigor mortis**
- Sembulingam (8th Edn): 188 | L.P.R (6th Edn): 88 | A.K.Jain (8th Edn) (Vol-I): 171 | G.K.Pal (2nd Edn) (Vol-I): 275
- Principle of immunological test of pregnancy**
- Sembulingam (8th Edn): 544 | L.P.R (6th Edn): 837 | A.K.Jain (8th Edn) (Vol-I): 721 | Function of placenta.
- Sembulingam (8th Edn): 540 | L.P.R (6th Edn): 842 | A.K.Jain (8th Edn) (Vol-I): 728 | Dark adaptations
- Sembulingam (8th Edn): 1059 | L.P.R (6th Edn): 924 | A.K.Jain (8th Edn) (Vol-I): 889 | G.K.Pal (2nd Edn) (Vol-I): 1244
- Physiological importance of olfaction.**
- Sembulingam (8th Edn): 1109 | L.P.R (6th Edn): 871 | A.K.Jain (8th Edn) (Vol-I): 940 | G.K.Pal (2nd Edn) (Vol-I): 1278

M.B.B.S DEGREE EXAMINATION

July/August - 2014

First M.B.B.S Examination PHYSIOLOGY PAPER-I

Time: 2½ Hours

Note : Answer all questions : Illustrate your answer with suitable diagrams.

1. Define mean arterial blood pressure. Describe the various factors regulating it.
Sembulingam (8th Edn): 651, 652 | L.P.R (6th Edn): 440 | A.K.Jain (8th Edn) (Vol-I): 356 | G.K.Pal (2nd Edn) (Vol-I): 478
2. Describe the role of counter-current mechanism in kidney function.
Sembulingam (8th Edn): 340 | L.P.R (6th Edn): 664 | A.K.Jain (8th Edn) (Vol-I): 516 | G.K.Pal (2nd Edn) (Vol-I): 756
3. **WRITE SHORT NOTE ON**
Describe the role of T-lymphocytes in immunity.
L.P.R (6th Edn): 321 | A.K.Jain (8th Edn) (Vol-I): 123
4. Outline the steps of erythropoiesis. Explain the essential factor required for it.
Sembulingam (8th Edn): 74, 76 | L.P.R (6th Edn): 288-291 | A.K.Jain (8th Edn) (Vol-I): 67, 97 | G.K.Pal (2nd Edn) (Vol-I): 95, 100
5. **Pharyngeal phase of deglutition.**
Sembulingam (8th Edn): 270 | L.P.R (6th Edn): 544 | A.K.Jain (8th Edn) (Vol-I): 209 | G.K.Pal (2nd Edn) (Vol-I): 683
6. **Digestion and absorption of fats.**
Sembulingam (8th Edn): 305 | L.P.R (6th Edn): 538 | A.K.Jain (8th Edn) (Vol-I): 264 | G.K.Pal (2nd Edn) (Vol-I): 708
7. **Haldane effect.**
Sembulingam (8th Edn): 772 | L.P.R (6th Edn): 600 | A.K.Jain (8th Edn) (Vol-I): 430 | G.K.Pal (2nd Edn) (Vol-I): 564
8. **WRITE BRIEFLY ON**
Define facilitated diffusion. Describe factors affecting it.
Sembulingam (8th Edn): 33 | L.P.R (6th Edn): 24 | A.K.Jain (8th Edn) (Vol-I): 15 | G.K.Pal (2nd Edn) (Vol-I): 48
9. **Hypovolemic shock.**
Sembulingam (8th Edn): 711 | L.P.R (6th Edn): 478 | A.K.Jain (8th Edn) (Vol-I): 382 | G.K.Pal (2nd Edn) (Vol-I): 736
10. **Cyanosis.**
Sembulingam (8th Edn): 789 | L.P.R (6th Edn): 616 | A.K.Jain (8th Edn) (Vol-I): 456 | G.K.Pal (2nd Edn) (Vol-I): 587
11. **Physiological dead space.**
Sembulingam (8th Edn): 577 | L.P.R (6th Edn): 579 | A.K.Jain (8th Edn) (Vol-I): 418 | G.K.Pal (2nd Edn) (Vol-I): 538
12. **Vitamin K dependent clotting factors.**
Sembulingam (8th Edn): 138 | L.P.R (6th Edn): 340 | A.K.Jain (8th Edn) (Vol-I): 102 | G.K.Pal (2nd Edn) (Vol-I): 214

Max. Marks: 50

Max. Marks: 50

[3 + 3 + 4 = 10]

[6 + 4 = 10]

[5 x 4 = 20]

[5 x

M.B.B.S DEGREE EXAMINATION
November - 2013
First M.B.B.S Examination
PHYSIOLOGY
PAPER - I

Time: 2½ Hours

- Note : Answer all questions : Illustrate your answer with suitable diagrams.**
- Max. Marks: 50**
1. Name the clotting factors. With the help of a schematic diagram, explain the mechanism of blood coagulation. Add a note on any two important bleeding disorders.
[3 + 4 + 3 = 10]
*Sembulingam (8th Edn): 133, 134, 135, 141 | L.P.R (6th Edn): 334-338 | A.K.Jain (8th Edn) (Vol-1): 95, 96, 98
 101 | G.K.Pal (2nd Edn) (Vol-1): 202, 205-207, 217*
 2. Describe the composition, functions and regulation of secretion of pancreatic juice.
[2 + 4 + 4 = 10]
*Sembulingam (8th Edn): 249, 252 | L.P.R (6th Edn): 514-517 | A.K.Jain (8th Edn) (Vol-1): 230-231 |
 G.K.Pal (2nd Edn) (Vol-1): 640, 653*
- WRITE SHORT NOTE ON**
[5 × 4 = 20]
3. Movements of small intestine
[5 × 4 = 20]
*Sembulingam (8th Edn): 286 | L.P.R (6th Edn): 550 | A.K.Jain (8th Edn) (Vol-1): 249 |
 G.K.Pal (2nd Edn) (Vol-1): 697*
 4. Second Heart Sound
*Sembulingam (8th Edn): 591 | L.P.R (6th Edn): 401 | A.K.Jain (8th Edn) (Vol-1): 291 |
 G.K.Pal (2nd Edn) (Vol-1): 397*
 5. Poiseuille's Hagen formula in circulation
*Sembulingam (8th Edn): 646 | L.P.R (6th Edn): 429 | A.K.Jain (8th Edn) (Vol-1): 316 |
 G.K.Pal (2nd Edn) (Vol-1): 423*
 6. Juxtaglomerular apparatus.
*Sembulingam (8th Edn): 323 | L.P.R (6th Edn): 643 | A.K.Jain (8th Edn) (Vol-1): 476 |
 G.K.Pal (2nd Edn) (Vol-2): 721*
 7. Pace maker potential.
*Sembulingam (8th Edn): 571 | L.P.R (6th Edn): 373 | A.K.Jain (8th Edn) (Vol-1): 176 |
 G.K.Pal (2nd Edn) (Vol-1): 364*
- WRITE BRIEFLY ON**
[5 × 2 = 10]
8. Functions of lymph.
[5 × 2 = 10]
Sembulingam (8th Edn): 161 | L.P.R (6th Edn): 354 | A.K.Jain (8th Edn) (Vol-1): 117
 9. Secondary active transport.
*Sembulingam (8th Edn): 37 | L.P.R (6th Edn): 27 | A.K.Jain (8th Edn) (Vol-1): 20 |
 G.K.Pal (2nd Edn) (Vol-1): 54*
 10. Chronic effects of hypoxia.
Sembulingam (8th Edn): 786 | L.P.R (6th Edn): 619 | A.K.Jain (8th Edn) (Vol-1): 447
 11. Jugular venous pulse.
*Sembulingam (8th Edn): 678 | L.P.R (6th Edn): 398 | A.K.Jain (8th Edn) (Vol-1): 290 |
 G.K.Pal (2nd Edn) (Vol-1): 396*
 12. Hypoxia – Definition and types.
[5 × 2 = 10]
*Sembulingam (8th Edn): 782, 783 | L.P.R (6th Edn): 613 | A.K.Jain (8th Edn) (Vol-1): 450 |
 G.K.Pal (2nd Edn) (Vol-1): 585*

M.B.B.S DEGREE EXAMINATION
November - 2013
First M.B.B.S Examination
PHYSIOLOGY
PAPER - II

- Max. Marks: 50**
1. Draw a labelled diagram of muscle spindle. Explain the effects of stretch and stimulation of gamma motor neuron on spindle activity.
[2 + 8 = 10]
Sembulingam (8th Edn): 980, 981, 982 | L.P.R (6th Edn): 140 | G.K.Pal (2nd Edn) (Vol-2): 1101, 1104
 2. Discuss the hormonal, ovarian and uterine changes during menstrual cycle.
[2 + 4 + 4 = 10]
*Sembulingam (8th Edn): 516 | L.P.R (6th Edn): 839 | A.K.Jain (8th Edn) (Vol-2): 702 |
 G.K.Pal (2nd Edn) (Vol-2): 985*
- WRITE SHORT NOTE ON**
[5 × 4 = 20]
3. Refractive errors in eye and their correction.
[5 × 4 = 20]
Sembulingam (8th Edn): 1083 | L.P.R (6th Edn): 906 | G.K.Pal (2nd Edn) (Vol-2): 1229
 4. Hormones regulating plasma calcium level.
Sembulingam (8th Edn): 435 | L.P.R (6th Edn): 763 | G.K.Pal (2nd Edn) (Vol-2): 927
 5. Seminal fluid.
Sembulingam (8th Edn): 500 | L.P.R (6th Edn): 817 | A.K.Jain (8th Edn) (Vol-2): 683
 6. Milk ejection reflex and parturition reflex.
*Sembulingam (8th Edn): 409 | L.P.R (6th Edn): 846, 840 | A.K.Jain (8th Edn) (Vol-2): 738, 727 |
 G.K.Pal (2nd Edn) (Vol-2): 841, 842*
 7. Diseases of basal ganglia.
*Sembulingam (8th Edn): 953 | L.P.R (6th Edn): 183 | A.K.Jain (8th Edn) (Vol-2): 882 |
 G.K.Pal (2nd Edn) (Vol-2): 1140*
- WRITE BRIEFLY ON**
[5 × 2 = 10]
8. Nerve action potential.
[5 × 2 = 10]
*Sembulingam (8th Edn): 194 | L.P.R (6th Edn): 72 | A.K.Jain (8th Edn) (Vol-1): 37 |
 G.K.Pal (2nd Edn) (Vol-2): 1270*
 9. Anti-inflammatory effect of glucocorticoids.
*Sembulingam (8th Edn): 462 | L.P.R (6th Edn): 768 | A.K.Jain (8th Edn) (Vol-2): 617, 621 |
 G.K.Pal (2nd Edn) (Vol-2): 878*
 10. Features of hypothyroidism in adults.
*Sembulingam (8th Edn): 423 | L.P.R (6th Edn): 753 | A.K.Jain (8th Edn) (Vol-2): 595, 597 |
 G.K.Pal (2nd Edn) (Vol-2): 856*
 11. Two common sleep disorders.
*Sembulingam (8th Edn): 1088 | L.P.R (6th Edn): 233 | A.K.Jain (8th Edn) (Vol-2): 876 |
 G.K.Pal (2nd Edn) (Vol-2): 1176*
 12. Tympanic reflex.
Sembulingam (8th Edn): 1088 | L.P.R (6th Edn): 876 | A.K.Jain (8th Edn) (Vol-2): 958

M.B.B.S DEGREE EXAMINATION

July - 2013

**First M.B.B.S Examination
PHYSIOLOGY
PAPER-I****Time: 2½ Hours****Note : Answer all questions : Illustrate your answer with suitable diagrams.**

- 1.** Name the blood group systems. Explain basis for its classification. Add a note on its clinical importance. [3 + 4 = 10]

Sembulingam (8th Edn): 344 | L.P.R (6th Edn): 346-352 | A.K.Jain (8th Edn) (Vol-1): 106 | G.K.Pal (2nd Edn) (Vol-1): 121

- 2.** Define cardiac output, mention the factors affecting cardiac output, describe one method of measurement of cardiac output. [1 + 4 + 5 = 10]

G.K.Pal (2nd Edn) (Vol-1): 401, 403, 406, 411

- 3.** Properties of cardiac muscle. [5 × 4 = 20]

Sembulingam (8th Edn): 569 | L.P.R (6th Edn): 373 | A.K.Jain (8th Edn) (Vol-1): 175 | G.K.Pal (2nd Edn) (Vol-1): 354

- 4.** Composition and functions of Gastric Juice. [5 × 4 = 20]

Sembulingam (8th Edn): 239 | L.P.R (6th Edn): 502 | A.K.Jain (8th Edn) (Vol-1): 216, 217 | G.K.Pal (2nd Edn) (Vol-1): 636, 637

- 5.** Juxta medullary nephron. [5 × 4 = 20]

Sembulingam (8th Edn): 318 | L.P.R (6th Edn): 645 | A.K.Jain (8th Edn) (Vol-1): 476 | G.K.Pal (2nd Edn) (Vol-1): 719

- 6.** Heat loss mechanism. [5 × 4 = 20]

Sembulingam (8th Edn): 383 | L.P.R (6th Edn): 711 | A.K.Jain (8th Edn) (Vol-2): 1007, 1008 | G.K.Pal (2nd Edn) (Vol-2): 1229

- 7.** Secondary active transport. [5 × 4 = 20]

Sembulingam (8th Edn): 37 | L.P.R (6th Edn): 27 | A.K.Jain (8th Edn) (Vol-1): 20 | G.K.Pal (2nd Edn) (Vol-1): 54

- 8.** Land Steiner's Law. [5 × 2 = 10]

Sembulingam (8th Edn): 142 | L.P.R (6th Edn): 346 | A.K.Jain (8th Edn) (Vol-1): 107 | G.K.Pal (2nd Edn) (Vol-1): 124

- 9.** P.R interval. [5 × 2 = 10]

Sembulingam (8th Edn): 602 | L.P.R (6th Edn): 385 | A.K.Jain (8th Edn) (Vol-1): 296 | G.K.Pal (2nd Edn) (Vol-1): 374

- 10.** Artificial respiration. [5 × 2 = 10]

Sembulingam (8th Edn): 805 | L.P.R (6th Edn): 628 | G.K.Pal (2nd Edn) (Vol-1): 599 | G.K.Pal (2nd Edn) (Vol-1): 632

- 11.** Control of Salivary Secretion. [5 × 2 = 10]

Sembulingam (8th Edn): 233 | L.P.R (6th Edn): 497 | A.K.Jain (8th Edn) (Vol-1): 206 | G.K.Pal (2nd Edn) (Vol-1): 632

- 12.** Respiratory distress syndrome. [5 × 2 = 10]

*Sembulingam (8th Edn): 742 | L.P.R (6th Edn): 578 | A.K.Jain (8th Edn) (Vol-1): 386 | G.K.Pal (2nd Edn) (Vol-1): 857***N T R U H S****M.B.B.S DEGREE EXAMINATION**

July - 2013

**First M.B.B.S Examination
PHYSIOLOGY
PAPER-II****Max. Marks: 50**

- 1.** Define pain. Describe the pathway for pain sensation with neat diagram. Explain referred. [1 + 6 + 3 = 10]

Sembulingam (8th Edn): 906, 908 | L.P.R (6th Edn): 148, 150 | A.K.Jain (8th Edn) (Vol-2): 789 | G.K.Pal (2nd Edn) (Vol-2): 1066, 1068, 1070

2. Name the hormones produced by supra renal glands. Describe the secretion regulation and action of any one of them. [4 + 3 + 3 = 10]

Sembulingam (8th Edn): 455, 457, 459 | L.P.R (6th Edn): 768 | A.K.Jain (8th Edn) (Vol-2): 616

WRITE SHORT NOTE ON [5 × 4 = 20]

Colour blindness.

Sembulingam (8th Edn): 1081 | L.P.R (6th Edn): 928 | A.K.Jain (8th Edn) (Vol-2): 995, 996 | G.K.Pal (2nd Edn) (Vol-2): 1249

Hyperglycemic hormones.

Sembulingam (8th Edn): 447 | L.P.R (6th Edn): 743 | A.K.Jain (8th Edn) (Vol-2): 554 | G.K.Pal (2nd Edn) (Vol-2): 905

Excitation contraction coupling.

Sembulingam (8th Edn): 199 | L.P.R (6th Edn): 83 | A.K.Jain (8th Edn) (Vol-1): 164 | G.K.Pal (2nd Edn) (Vol-1): 264

Spermatogenesis.

Sembulingam (8th Edn): 491 | L.P.R (6th Edn): 815 | A.K.Jain (8th Edn) (Vol-2): 683 | G.K.Pal (2nd Edn) (Vol-2): 961

Contraceptive methods in females.

Sembulingam (8th Edn): 555 | L.P.R (6th Edn): 849 | A.K.Jain (8th Edn) (Vol-2): 713 | G.K.Pal (2nd Edn) (Vol-2): 1021

WRITE BRIEFLY ON

1. Tests for hearing. [5 × 2 = 10]

Sembulingam (8th Edn): 1101 | L.P.R (6th Edn): 891 | A.K.Jain (8th Edn) (Vol-2): 964 | G.K.Pal (2nd Edn) (Vol-2): 1274

REM sleep.

Sembulingam (8th Edn): 1005 | L.P.R (6th Edn): 232 | A.K.Jain (8th Edn) (Vol-2): 873 | G.K.Pal (2nd Edn) (Vol-2): 1173

Corpus luteum.

Sembulingam (8th Edn): 1005 | L.P.R (6th Edn): 518 | A.K.Jain (8th Edn) (Vol-2): 701 | G.K.Pal (2nd Edn) (Vol-2): 980, 981

Myopia.

Sembulingam (8th Edn): 1083 | L.P.R (6th Edn): 907 | A.K.Jain (8th Edn) (Vol-2): 985 | G.K.Pal (2nd Edn) (Vol-2): 1229

Cretinism.

Sembulingam (8th Edn): 424 | L.P.R (6th Edn): 734 | A.K.Jain (8th Edn) (Vol-2): 595 | G.K.Pal (2nd Edn) (Vol-1): 857

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M.B.B.S DEGREE EXAMINATION

November - 2012

First M.B.B.S Examination**PHYSIOLOGY****PAPER-I****Time: 2½ Hours****Note : Answer all questions: Illustrate your answer with suitable diagrams.**

- 1. Enumerate the respiratory centers. Explain the neural and chemical regulation of respiration.** **[2 + 4 = 10]**

*Sembulingam (8th Edn): 773 | L.P.R (6th Edn): 601-610 | A.K.Jain (8th Edn) (Vol-1): 435 |**G.K.Pal (2nd Edn) (Vol-2): 566-567, 570-578*

- 2. Give an account of various factors involved in blood coagulation. Write a note on fibrinolytic system.** **[6 + 4 = 10]**

*Sembulingam (8th Edn): 133 | L.P.R (6th Edn): 334-338 | A.K.Jain (8th Edn) (Vol-1): 95-97, 99 |**G.K.Pal (2nd Edn) (Vol-2): 202-205***WRITE SHORT NOTE ON**

- Action potential of ventricular muscle.**

*Sembulingam (8th Edn): 570 | L.P.R (6th Edn): 372 | A.K.Jain (8th Edn) (Vol-1): 178 |***WRITE SHORT NOTE ON**

- Description the composition and functions of Bile.**

*Sembulingam (8th Edn): 259-260 | L.P.R (6th Edn): 321 | A.K.Jain (8th Edn) (Vol-2): 237-241 |**G.K.Pal (2nd Edn) (Vol-1): 665*

- Composition and functions of saliva.**

*Sembulingam (8th Edn): 231 | L.P.R (6th Edn): 496 | A.K.Jain (8th Edn) (Vol-2): 204-205 |**G.K.Pal (2nd Edn) (Vol-1): 631*

- Regulation of glomerular filtration rate.**

*Sembulingam (8th Edn): 323 | L.P.R (6th Edn): 632 | A.K.Jain (8th Edn) (Vol-1): 489 |**G.K.Pal (2nd Edn) (Vol-2): 733*

- Lung volumes and capacities with their normal values.**

*Sembulingam (8th Edn): 747 | L.P.R (6th Edn): 387 | A.K.Jain (8th Edn) (Vol-1): 407 |**G.K.Pal (2nd Edn) (Vol-1): 522-523***WRITE BRIEFLY ON**

- Reactive hyperemia.**

Sembulingam (8th Edn): 683 | L.P.R (6th Edn): 464 | A.K.Jain (8th Edn) (Vol-1): 374

- Distribution of body fluids.**

*Sembulingam (8th Edn): 52 | L.P.R (6th Edn): 41 | A.K.Jain (8th Edn) (Vol-1): 27 |**G.K.Pal (2nd Edn) (Vol-1): 66, 67*

- Cause for production of heart sounds.**

*Sembulingam (8th Edn): 589 | L.P.R (6th Edn): 401 | A.K.Jain (8th Edn) (Vol-1): 290 |**G.K.Pal (2nd Edn) (Vol-1): 397*

- Define Cyanosis. Where it is seen?**

*Sembulingam (8th Edn): 616 | A.K.Jain (8th Edn) (Vol-1): 456 |**G.K.Pal (2nd Edn) (Vol-1): 387*

- Intra pleural pressure.**

*Sembulingam (8th Edn): 742 | L.P.R (6th Edn): 396 | A.K.Jain (8th Edn) (Vol-1): 405 |**G.K.Pal (2nd Edn) (Vol-1): 519***Max. Marks: 50**

- 1. Name the anterior pituitary hormones. What are the function and mechanism of action of growth hormone?** **[4 + 4 = 10]**

*Sembulingam (8th Edn): 403, 405 | L.P.R (6th Edn): 730, 736 | A.K.Jain (8th Edn) (Vol-1): 566 |**G.K.Pal (2nd Edn) (Vol-2): 823*

- Draw a labelled diagram of corticospinal tracts. Explain the effect of decerebration on their function.** **[5 + 5 = 10]**

*Sembulingam (8th Edn): 882 | L.P.R (6th Edn): 170 | A.K.Jain (8th Edn) (Vol-2): 800 |**G.K.Pal (2nd Edn) (Vol-2): 1115, 1116***WRITE SHORT NOTE ON**

- Types of muscle fibers.**

*L.P.R (6th Edn): 76 | A.K.Jain (8th Edn) (Vol-1): 162 | G.K.Pal (2nd Edn) (Vol-1): 276 |**G.K.Pal (2nd Edn) (Vol-2): 857*

- Thyroid function tests.**

*Sembulingam (8th Edn): 426 | L.P.R (6th Edn): 753 | A.K.Jain (8th Edn) (Vol-2): 599 |**G.K.Pal (2nd Edn) (Vol-2): 857*

- Functions of thalamus.**

*Sembulingam (8th Edn): 920 | L.P.R (6th Edn): 219 | A.K.Jain (8th Edn) (Vol-2): 865 |**G.K.Pal (2nd Edn) (Vol-2): 1082***Neuromuscular junction.***Sembulingam (8th Edn): 205 | L.P.R (6th Edn): 70 | A.K.Jain (8th Edn) (Vol-1): 154 |**G.K.Pal (2nd Edn) (Vol-1): 250*

- Signs of ovulation.**

*L.P.R (6th Edn): 826 | G.K.Pal (2nd Edn) (Vol-1): 983***WRITE BRIEFLY ON**

- Mention the functions of middle ear.** **[5 × 2 = 10]**

*Sembulingam (8th Edn): 1088 | L.P.R (6th Edn): 875 | A.K.Jain (8th Edn) (Vol-2): 951 |**G.K.Pal (2nd Edn) (Vol-2): 1260*

- Name the contraceptive methods in females.**

*Sembulingam (8th Edn): 555 | L.P.R (6th Edn): 849 | A.K.Jain (8th Edn) (Vol-2): 713 |**G.K.Pal (2nd Edn) (Vol-2): 1021*

- Taste buds.**

*Sembulingam (8th Edn): 1103 | L.P.R (6th Edn): 866 | A.K.Jain (8th Edn) (Vol-2): 945 |**G.K.Pal (2nd Edn) (Vol-2): 1282***Aphasia – Definition and types.***Sembulingam (8th Edn): 1022 | L.P.R (6th Edn): 252 | A.K.Jain (8th Edn) (Vol-2): 919 |**G.K.Pal (2nd Edn) (Vol-2): 1197, 1198*

- Milk ejection reflex.**

*Sembulingam (8th Edn): 409 | L.P.R (6th Edn): 846 | A.K.Jain (8th Edn) (Vol-2): 579 |**G.K.Pal (2nd Edn) (Vol-2): 841*

M.B.B.S DEGREE EXAMINATION

July - 2012

First M.B.B.S Examination PHYSIOLOGY PAPER - I

Time: 2½ Hours

1. Define blood pressure, systolic pressure, diastolic pressure and pulse pressure with their normal values. Explain the baroreceptor reflex [10]

Sembulingam (8th Edn): 651, 655 | L.P.R (6th Edn): 440 | A.K.Jain (8th Edn) (Vol-1): 344 |

G.K. Pal (2nd Edn) (Vol-1): 429

2. What is the physiological basis of blood grouping? Explain the blood groups and their clinical importance. Add a note on cross matching. [10]

Sembulingam (8th Edn): 143, 144 | L.P.R (6th Edn): 346-352 | A.K.Jain (8th Edn) (Vol-1): 106, 110 |

G.K. Pal (2nd Edn) (Vol-1): 121, 122

WRITE BRIEFLY ON

3. Erythropoiesis. [5 × 2 = 10]

Sembulingam (8th Edn): 74 | L.P.R (6th Edn): 288-291 | A.K.Jain (8th Edn) (Vol-1): 67 |

G.K. Pal (2nd Edn) (Vol-1): 95

4. Pacemaker potential. [5 × 2 = 10]

Sembulingam (8th Edn): 571 | L.P.R (6th Edn): 373 | A.K.Jain (8th Edn) (Vol-1): 176 |

G.K. Pal (2nd Edn) (Vol-1): 364

5. Coronary circulation. [5 × 2 = 10]

Sembulingam (8th Edn): 680 | L.P.R (6th Edn): 452 | A.K.Jain (8th Edn) (Vol-1): 355 |

G.K. Pal (2nd Edn) (Vol-1): 477

6. Timed vital capacity in obstructive and restrictive disorders with diagram. [5 × 2 = 10]

Sembulingam (8th Edn): 752, 753 | L.P.R (6th Edn): 587 | A.K.Jain (8th Edn) (Vol-1): 408, 409 |

G.K. Pal (2nd Edn) (Vol-1): 532

7. Enterohepatic circulation of bile salts. [5 × 2 = 10]

Sembulingam (8th Edn): 260 | L.P.R (6th Edn): 521 | A.K.Jain (8th Edn) (Vol-1): 239, 240 |

G.K. Pal (2nd Edn) (Vol-1): 665

WRITE BRIEFLY ON

8. Dietary fiber. [5 × 2 = 10]

Sembulingam (8th Edn): 300 | A.K. Pal (2nd Edn) (Vol-1): 436

WRITE BRIEFLY ON

9. Arteriovenous anastomoses. [5 × 2 = 10]

L.P.R (6th Edn): 435 | G.K. Pal (2nd Edn) (Vol-1): 436

Triple response.

Sembulingam (8th Edn): 700 | L.P.R (6th Edn): 463 | A.K.Jain (8th Edn) (Vol-1): 372

Inulin clearance.

Sembulingam (8th Edn): 358 | L.P.R (6th Edn): 688 | A.K.Jain (8th Edn) (Vol-1): 507 |

Chloride shift.

Sembulingam (8th Edn): 771 | A.K.Jain (8th Edn) (Vol-1): 431

12. Sembulingam (8th Edn): 525 | L.P.R (6th Edn) (Vol-2): 707 |

1. Sembulingam (8th Edn): 490 | L.P.R (6th Edn): 12 | A.K.Jain (8th Edn) (Vol-2): 683 |
2. Physiological basis of anovulatory menstrual cycle.

- G.K. Pal (2nd Edn) (Vol-2): 984 |
- Sembulingam (8th Edn): 771 | A.K.Jain (8th Edn) (Vol-1): 155 |
- G.K. Pal (2nd Edn) (Vol-1): 250, 253
- Name the functional divisions of cerebellum. Explain the connections and functions of it and add a note on cerebellar disease. [10]

Sembulingam (8th Edn): 940, 946, 947 | L.P.R (6th Edn): 188, 190, 192 | A.K.Jain (8th Edn) (Vol-2): 854, 931 |

G.K. Pal (2nd Edn) (Vol-2): 1145, 1147, 1149

[5 × 4 = 20]

N T R U H S

M.B.B.S DEGREE EXAMINATION

July - 2012

First M.B.B.S Examination PHYSIOLOGY PAPER - II

Max. Marks: 50

Note : Answer all questions : Illustrate your answer with suitable diagrams.

1. Define blood pressure, systolic pressure, diastolic pressure and pulse events which occur during its transmission and add a note on myasthenia gravis. [10]

Sembulingam (8th Edn): 206, 207, 208, 212 | L.P.R (6th Edn): 70 | A.K.Jain (8th Edn) (Vol-1): 155 |

G.K. Pal (2nd Edn) (Vol-1): 250, 253

2. Name the functional divisions of cerebellum. Explain the connections and functions of it and add a note on cerebellar disease. [10]

Sembulingam (8th Edn): 940, 946, 947 | L.P.R (6th Edn): 188, 190, 192 | A.K.Jain (8th Edn) (Vol-2): 854, 931 |

G.K. Pal (2nd Edn) (Vol-2): 1145, 1147, 1149

WRITE SHORT NOTE ON

Spermatogenesis.

Sembulingam (8th Edn): 491 | L.P.R (6th Edn): 815 | A.K.Jain (8th Edn) (Vol-2): 683 |

G.K. Pal (2nd Edn) (Vol-2): 961

Features of Cushing's syndrome.

Sembulingam (8th Edn): 464 | L.P.R (6th Edn): 775 | A.K.Jain (8th Edn) (Vol-2): 624 |

G.K. Pal (2nd Edn) (Vol-2): 887

Role of hypothalamus in regulation of food intake.

Sembulingam (8th Edn): 929 | L.P.R (6th Edn): 219 | A.K.Jain (8th Edn) (Vol-2): 888 |

G.K. Pal (2nd Edn) (Vol-2): 1161

Parkinsonism and physiological basis of a drug used in its treatment.

Sembulingam (8th Edn): 933 | L.P.R (6th Edn): 183 | A.K.Jain (8th Edn) (Vol-2): 882 |

G.K. Pal (2nd Edn) (Vol-2): 1140

Colour vision.

Sembulingam (8th Edn): 1078 | L.P.R (6th Edn): 928 | A.K.Jain (8th Edn) (Vol-2): 994 |

G.K. Pal (2nd Edn) (Vol-2): 1247

WRITE BRIEFLY ON

Flight of fight reaction.

L.P.R (6th Edn): 257 | A.K.Jain (8th Edn) (Vol-2): 864

- Actions of gonadotropin releasing hormone in males and females. [5 × 2 = 10]

Sembulingam (8th Edn): 541 | L.P.R (6th Edn): 733 | A.K.Jain (8th Edn) (Vol-2): 676 |

G.K. Pal (2nd Edn) (Vol-2): 996

Renshaw cell inhibition.

Sembulingam (8th Edn): 848 | L.P.R (6th Edn): 116 | A.K.Jain (8th Edn) (Vol-2): 754 |

G.K. Pal (2nd Edn) (Vol-2): 1040

Functions of blood testis barrier.

Sembulingam (8th Edn): 490 | L.P.R (6th Edn): 12 | A.K.Jain (8th Edn) (Vol-2): 683 |

Physiological basis of anovulatory menstrual cycle.

Sembulingam (8th Edn): 525 | L.P.R (6th Edn) (Vol-2): 984 |

12. Sembulingam (8th Edn): 771 | A.K.Jain (8th Edn) (Vol-1): 155 |

G.K. Pal (2nd Edn) (Vol-2): 1145, 1147, 1149

[5 × 4 = 20]

Time: 2½ Hours

Note : Answer all questions : Illustrate your answer with suitable diagrams.

Max. Marks: 50

1. Describe the composition, functions and regulation of gastrin juice secretion. [10]

Sembulingam (8th Edn): 239, 241 | L.P.R (6th Edn): 502-508 | A.K.Jain (8th Edn) (Vol-1): 216, 217 | G.K. Pal (2nd Edn) (Vol-1): 637-641

2. Describe counter current multiplier system in the kidney. [10]

Sembulingam (8th Edn): 340 | L.P.R (6th Edn): 664 | A.K.Jain (8th Edn) (Vol-1): 516 | G.K. Pal (2nd Edn) (Vol-2): 756

WRITE SHORT NOTE ON

3. Mention functions of platelets. [5 × 4 = 20]

Sembulingam (8th Edn): 128 | L.P.R (6th Edn): 331 | A.K.Jain (8th Edn) (Vol-1): 931 | G.K. Pal (2nd Edn) (Vol-1): 193

4. Cyanosis. [5 × 4 = 20]

Sembulingam (8th Edn): 789 | L.P.R (6th Edn): 616 | A.K.Jain (8th Edn) (Vol-1): 456 | G.K. Pal (2nd Edn) (Vol-1): 587

5. Surfactant and its functions. [5 × 4 = 20]

Sembulingam (8th Edn): 741 | L.P.R (6th Edn): 577 | A.K.Jain (8th Edn) (Vol-1): 411, 412 | G.K. Pal (2nd Edn) (Vol-1): 528

6. Anaemia. [5 × 4 = 20]

Sembulingam (8th Edn): 91 | L.P.R (6th Edn): 297, 299 | A.K.Jain (8th Edn) (Vol-1): 93 | G.K. Pal (2nd Edn) (Vol-1): 114

7. Draw and label waves of ECG (Electro Cardiogram) [5 × 2 = 10]

Sembulingam (8th Edn): 598-602 | L.P.R (6th Edn): 383 | A.K.Jain (8th Edn) (Vol-1): 295 | G.K. Pal (2nd Edn) (Vol-1): 371

WRITE BRIEFLY ON

8. Secretory vesicles. [5 × 2 = 10]

Sembulingam (8th Edn): 11 | A.K.Jain (8th Edn): 8 | G.K. Pal (2nd Edn) (Vol-1): 20

9. Functions of spleen. [5 × 2 = 10]

Sembulingam (8th Edn): 156 | L.P.R (6th Edn): 314 | A.K.Jain (8th Edn) (Vol-1): 115 | G.K. Pal (2nd Edn) (Vol-1): 159

10. Cross matching of blood. [5 × 2 = 10]

Sembulingam (8th Edn): 144 | L.P.R (6th Edn): 350 | A.K.Jain (8th Edn) (Vol-1): 109

11. Functions of lymph. [5 × 2 = 10]

Sembulingam (8th Edn): 161 | L.P.R (6th Edn): 354 | A.K.Jain (8th Edn) (Vol-1): 117

12. Heart sounds. [5 × 2 = 10]

Sembulingam (8th Edn): 589 | L.P.R (6th Edn): 401 | A.K.Jain (8th Edn) (Vol-1): 290 | G.K. Pal (2nd Edn) (Vol-1): 397

Max. Marks: 50

[10]

1. Explain the physiological actions of Insulin. [5 × 4 = 20]

Sembulingam (8th Edn): 444-445 | L.P.R (6th Edn): 785 | A.K.Jain (8th Edn) (Vol-2): 644 | G.K. Pal (2nd Edn) (Vol-2): 896

2. Describe the actions of ovarian hormones. [5 × 2 = 10]

Sembulingam (8th Edn): 510 | L.P.R (6th Edn): 853 | A.K.Jain (8th Edn) (Vol-2): 704 | G.K. Pal (2nd Edn) (Vol-2): 992

[10]

3. What is blood brain barrier? What are its functions and clinical importance? [5 × 2 = 10]

Sembulingam (8th Edn): 1027 | L.P.R (6th Edn): 266 | A.K.Jain (8th Edn) (Vol-1): 368 | G.K. Pal (2nd Edn) (Vol-2): 1213

4. What is referred pain? Explain suitably. [5 × 2 = 10]

Sembulingam (8th Edn): 907 | L.P.R (6th Edn): 152 | A.K.Jain (8th Edn) (Vol-2): 791 | G.K. Pal (2nd Edn) (Vol-2): 1070

5. Draw a neat diagram of light reflex pathway and label it. [5 × 2 = 10]

Sembulingam (8th Edn): 1072 | L.P.R (6th Edn): 900 | A.K.Jain (8th Edn) (Vol-2): 930, 932 | G.K. Pal (2nd Edn) (Vol-2): 1245

6. Functions of limbic system. [5 × 2 = 10]

Sembulingam (8th Edn): 972 | L.P.R (6th Edn): 224 | A.K.Jain (8th Edn) (Vol-2): 909 | G.K. Pal (2nd Edn) (Vol-2): 1183

7. Family planning methods in males. [5 × 2 = 10]

Sembulingam (8th Edn): 555 | L.P.R (6th Edn): 832 | A.K.Jain (8th Edn) (Vol-2): 713 | G.K. Pal (2nd Edn) (Vol-2): 1023

[10]

8. **WRITE BRIEFLY ON** [5 × 2 = 10]
- Draw a diagram of sarcomere and label it. [5 × 2 = 10]

Sembulingam (8th Edn): 176 | L.P.R (6th Edn): 77 | A.K.Jain (8th Edn) (Vol-1): 161 | G.K. Pal (2nd Edn) (Vol-1): 259

[10]

9. Refractory period. [5 × 2 = 10]

Sembulingam (8th Edn): 573 | L.P.R (6th Edn): 62 | A.K.Jain (8th Edn) (Vol-1): 401 | G.K. Pal (2nd Edn) (Vol-1): 335

10. Where is area number 44 located? What are its functions? [5 × 2 = 10]

Sembulingam (8th Edn): 961, 962 | L.P.R (6th Edn): 245 | A.K.Jain (8th Edn) (Vol-2): 904 | G.K. Pal (2nd Edn) (Vol-2): 1197

[10]

11. Functions of middle ear. [5 × 2 = 10]

Sembulingam (8th Edn): 1088 | L.P.R (6th Edn): 875 | A.K.Jain (8th Edn) (Vol-2): 951 | G.K. Pal (2nd Edn) (Vol-2): 1260

12. Adrenogenital syndrome. [5 × 2 = 10]

Sembulingam (8th Edn): 467 | L.P.R (6th Edn): 776 | A.K.Jain (8th Edn) (Vol-2): 629 | G.K. Pal (2nd Edn) (Vol-2): 884

M.B.B.S DEGREE EXAMINATION

July - 2011

First M.B.B.S Examination

PHYSIOLOGY

PAPER - I

Time: 2½ Hours

1. Explain the hormonal phase of pancreatic juice secretion
 2. Sembulingam (8th Edn): 253 | L.P.R (6th Edn): 514-517 | A.K.Jain (8th Edn) (Vol-I): 230
G.K.Pal (2nd Edn) (Vol-I): 669, 643
 3. What is hypoxia? Classify it. Explain them in brief.
 4. Sembulingam (8th Edn): 782 | L.P.R (6th Edn): 613 | A.K.Jain (8th Edn) (Vol-I): 450 |
G.K.Pal (2nd Edn) (Vol-I): 565
 5. **WRITE SHORT NOTE ON**
 6. Anticoagulants.
 7. Sembulingam (8th Edn): 137 | L.P.R (6th Edn): 339 | A.K.Jain (8th Edn) (Vol-I): 100 |
G.K.Pal (2nd Edn) (Vol-I): 213
 8. Erythroblastosis Fetalis.
 9. Sembulingam (8th Edn): 146 | L.P.R (6th Edn): 348 | A.K.Jain (8th Edn) (Vol-I): 108, 109
G.K.Pal (2nd Edn) (Vol-I): 125
 10. Venous Return.
 11. Sembulingam (8th Edn): 631 | L.P.R (6th Edn): 425 | A.K.Jain (8th Edn) (Vol-I): 344
 12. Artificial kidney.
 13. Sembulingam (8th Edn): 369 | L.P.R (6th Edn): 688 | A.K.Jain (8th Edn) (Vol-I): 511 |
G.K.Pal (2nd Edn) (Vol-2): 721
 14. Heart sounds.
 15. Sembulingam (8th Edn): 589 | L.P.R (6th Edn): 401 | A.K.Jain (8th Edn) (Vol-I): 290 |
G.K.Pal (2nd Edn) (Vol-I): 397
 16. **WRITE BRIEFLY ON**
 17. Endocytosis.
 18. Sembulingam (8th Edn): 38 | L.P.R (6th Edn): 20 | A.K.Jain (8th Edn) (Vol-I): 20 |
G.K.Pal (2nd Edn) (Vol-I): 55
 19. Carotid bodies.
 20. L.P.R (6th Edn): 607 | A.K.Jain (8th Edn) (Vol-I): 440 | G.K.Pal (2nd Edn) (Vol-I): 570
 21. Sweat glands.
 22. Sembulingam (8th Edn): 378 | L.P.R (6th Edn): 706 | G.K.Pal (2nd Edn) (Vol-2): 1293
 23. What is Tubular maximum for Glucose (TMG).
 24. Sembulingam (8th Edn): 336 | L.P.R (6th Edn): 655 | A.K.Jain (8th Edn) (Vol-I): 493 |
G.K.Pal (2nd Edn) (Vol-2): 744
 25. Anti Diuretic Hormone (ADH).
 26. Sembulingam (8th Edn): 408 | L.P.R (6th Edn): 740 | A.K.Jain (8th Edn) (Vol-2): 577 |
G.K.Pal (2nd Edn) (Vol-2): 837

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M.B.B.S DEGREE EXAMINATION

July - 2011

First M.B.B.S Examination

PAPER - II

Max Marks: 50

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- What is Puberty? Mention the changes that occur during puberty in females.
L.P.R (6th Edn): 810 | A.K.Jain (3rd Edn) (7th-2): 675 | G.K.Pal (2nd Edn) (7th-2): 951
[2 + 8 = 10]
 - Mention the formation, composition and functions of Cerebro Spinal Fluid (C.S.F).
Sembulingam (8th Edn): 1024, 1025, 1026 | L.P.R (6th Edn): 262 | A.K.Jain (3rd Edn) (7th-1): 352 | G.K.Pal (2nd Edn) (7th-2): 1212
[3 + 3 + 4 = 10]
 - WRITE SHORT NOTE ON**
Define Resting Membrane Potential. What is its ionic basis?
Sembulingam (8th Edn): 193 | L.P.R (6th Edn): 35 | A.K.Jain (3rd Edn) (7th-1): 35 | G.K.Pal (2nd Edn) (7th-1): 61
[5 x 4 = 20]
 - List the differences between upper motor neuron lesion (UMN) and lower motor neuron lesion (LMN).
Sembulingam (8th Edn): 904 | L.P.R (6th Edn): 216 | A.K.Jain (3rd Edn) (7th-2): 805 | G.K.Pal (2nd Edn) (7th-2): 1121
 - List the important effects of Adrenaline on different tissues.
Sembulingam (8th Edn): 472, 473 | A.K.Jain (3rd Edn) (7th-2): 814
 - Addison's disease.
Sembulingam (8th Edn): 467 | L.P.R (6th Edn): 774 | A.K.Jain (3rd Edn) (7th-2): 628 | G.K.Pal (2nd Edn) (7th-2): 882, 883
 - Mention common errors of Refraction, its causes and their correction.
Sembulingam (8th Edn): 1083 | L.P.R (6th Edn): 906 | G.K.Pal (2nd Edn) (7th-2): 1229
 - WRITE BRIEFLY ON**
Motor end plate.
Sembulingam (8th Edn): 205 | L.P.R (6th Edn): 70 | A.K.Jain (3rd Edn) (7th-1): 156
[5 x 2 =
 - Mention the properties of Receptors.
Sembulingam (8th Edn): 839 | L.P.R (6th Edn): 141 | G.K.Pal (2nd Edn) (3rd Edn) (7th-2): 1051
 - Function of Iris.
Sembulingam (8th Edn): 1044 | L.P.R (6th Edn): 896 | A.K.Jain (3rd Edn) (7th-2): 968 | G.K.Pal (2nd Edn) (7th-2): 1221
 - Myxedema.
Sembulingam (8th Edn): 423 | L.P.R (6th Edn): 754 | A.K.Jain (3rd Edn) (7th-2): 595 | G.K.Pal (2nd Edn) (7th-2): 836
 - Taste buds.
Sembulingam (8th Edn): 1103 | L.P.R (6th Edn): 866 | A.K.Jain (3rd Edn) (7th-2): 645 | G.K.Pal (2nd Edn) (7th-2): 1226
 - 12.

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M.B.B.S DEGREE EXAMINATION

January - 2011

First M.B.B.S Examination

PHYSIOLOGY

PAPER - I

Time: 2½ Hours

Note : Answer all questions : Illustrate your answer with suitable diagrams.

1. Define arterial blood pressure. Mention its normal values. Explain the regulation of blood pressure. [1 + 1 + 8 = 10]
Sembulingam (8th Edn): 6.51, 6.53 | L.P.R (6th Edn): 440 | A.K.Jain (8th Edn) (Vol-I): 344 | G.K.Pal (2nd Edn) (Vol-I): 429
 2. Describe reabsorption of water in Renal tubules. Add a note on Diabetes insipidus. [8 + 2 = 10]
Sembulingam (8th Edn): 337 | L.P.R (6th Edn): 675 | A.K.Jain (8th Edn) (Vol-I): 501 | G.K.Pal (2nd Edn) (Vol-2): 760
 3. **WRITE SHORT NOTE ON**
 Various stages of Asphyxia. [5 × 4 = 20]
Sembulingam (8th Edn): 787 | L.P.R (6th Edn): 616 | A.K.Jain (8th Edn) (Vol-I): 445 | G.K.Pal (2nd Edn) (Vol-I): 595
 4. Functions of skin. [5 × 4 = 20]
Sembulingam (8th Edn): 379 | L.P.R (6th Edn): 707 | G.K.Pal (2nd Edn) (Vol-2): 1293
 5. Jaundice. [5 × 4 = 20]
Sembulingam (8th Edn): 265 | L.P.R (6th Edn): 294 | A.K.Jain (8th Edn) (Vol-I): 77 | G.K.Pal (2nd Edn) (Vol-I): 660
 6. Mechanism of Hydrochloric acid secretion in stomach. [5 × 4 = 20]
Sembulingam (8th Edn): 241 | L.P.R (6th Edn): 502 | A.K.Jain (8th Edn) (Vol-I): 217 | G.K.Pal (2nd Edn) (Vol-I): 637
 7. Erythrocyte Sedimentation Rate (ESR). [5 × 2 = 10]
Sembulingam (8th Edn): 86 | L.P.R (6th Edn): 302 | G.K.Pal (2nd Edn) (Vol-I): 92, 93
 8. **WRITE BRIEFLY ON**
 Mitochondria. [5 × 2 = 10]
Sembulingam (8th Edn): 11 | L.P.R (6th Edn): 5, 6 | A.K.Jain (8th Edn) (Vol-I): 1011 | G.K.Pal (2nd Edn) (Vol-I): 18
 9. Fever. [5 × 2 = 10]
Sembulingam (8th Edn): 385 | L.P.R (6th Edn): 714 | A.K.Jain (8th Edn) (Vol-I): 71-75 | G.K.Pal (2nd Edn) (Vol-2): 1300
 10. Classify anaemias. [5 × 2 = 10]
Sembulingam (8th Edn): 91 | L.P.R (6th Edn): 298 | A.K.Jain (8th Edn) (Vol-I): 71-75 | G.K.Pal (2nd Edn) (Vol-I): 114-118
 11. Residual volume. [5 × 2 = 10]
Sembulingam (8th Edn): 748 | L.P.R (6th Edn): 587 | A.K.Jain (8th Edn) (Vol-I): 407 | G.K.Pal (2nd Edn) (Vol-I): 523
 12. Define vital capacity and mention its values. [5 × 2 = 10]
Sembulingam (8th Edn): 752 | L.P.R (6th Edn): 587 | A.K.Jain (8th Edn) (Vol-I): 408, 409 | G.K.Pal (2nd Edn) (Vol-I): 523
- Max. Marks: 50**
1. What is Referred Pain? Explain the theories of Referred Pain and mention few examples. [1 + 3 + 3 + 3 = 10]
Sembulingam (8th Edn): 907, 908 | L.P.R (6th Edn): 152 | A.K.Jain (8th Edn) (Vol-2): 789 | G.K.Pal (2nd Edn) (Vol-2): 1070
 2. Mention normal blood calcium level. Explain how it is regulated. [2 + 8 = 10]
Sembulingam (8th Edn): 433, 435 | L.P.R (6th Edn): 764 | G.K.Pal (2nd Edn) (Vol-2): 912, 915
 3. What is spermatogenesis? Mention factors which regulate spermatogenesis. [5 × 4 = 20]
Sembulingam (8th Edn): 491 | L.P.R (6th Edn): 815 | A.K.Jain (8th Edn) (Vol-2): 683 | G.K.Pal (2nd Edn) (Vol-2): 961
 4. Visual pathway. [5 × 2 = 10]
Sembulingam (8th Edn): 1066 | L.P.R (6th Edn): 915 | A.K.Jain (8th Edn) (Vol-2): 973 | G.K.Pal (2nd Edn) (Vol-2): 1235
 5. Mention the actions of chemicals at Neuro-muscular junctions.
 (a) Cholinesterase
 (b) Curare
 (c) Physostigmine. [5 × 2 = 10]
Sembulingam (8th Edn): 154 | G.K.Pal (2nd Edn) (Vol-2): 252, 253
 6. Milk ejection reflex. [5 × 2 = 10]
Sembulingam (8th Edn): 409 | L.P.R (6th Edn): 846 | A.K.Jain (8th Edn) (Vol-2): 579 | G.K.Pal (2nd Edn) (Vol-2): 841
 7. Light and dark adaptation of eyes. [5 × 2 = 10]
Sembulingam (8th Edn): 1061, 1059 | L.P.R (6th Edn): 924, 925 | A.K.Jain (8th Edn) (Vol-2): 909, 990 | G.K.Pal (2nd Edn) (Vol-2): 1244
 8. **WRITE BRIEFLY ON**
 Corpus luteum. [5 × 2 = 10]
Sembulingam (8th Edn): 518 | L.P.R (6th Edn): 828 | A.K.Jain (8th Edn) (Vol-2): 701 | G.K.Pal (2nd Edn) (Vol-2): 980, 981
 9. Vibration sense. [5 × 2 = 10]
Sembulingam (8th Edn): 881 | L.P.R (6th Edn): 146 | A.K.Jain (8th Edn) (Vol-2): 794 | G.K.Pal (2nd Edn) (Vol-2): 1062
 10. Functions of middle ear. [5 × 2 = 10]
Sembulingam (8th Edn): 1088 | L.P.R (6th Edn): 873 | A.K.Jain (8th Edn) (Vol-2): 951 | G.K.Pal (2nd Edn) (Vol-2): 1260
 11. Aldosterone. [5 × 2 = 10]
Sembulingam (8th Edn): 457 | L.P.R (6th Edn): 884 | A.K.Jain (8th Edn) (Vol-2): 618, 625 | G.K.Pal (2nd Edn) (Vol-2): 1274
 12. Hearing Tests. [5 × 2 = 10]
Sembulingam (8th Edn): 1101 | L.P.R (6th Edn): 891 | A.K.Jain (8th Edn) (Vol-2): 964 | G.K.Pal (2nd Edn) (Vol-2): 1274

M.B.B.S DEGREE EXAMINATION

July - 2010

First M.B.B.S Examination PHYSIOLOGY

PAPER - I

Time: 2½ Hours

Note : Answer all questions : Illustrate your answer with suitable diagrams.

1. Classify leucocytes. Give an account of development and functions of different Leucocytes. [10]

Sembulingam (8th Edn): 101, 104 | L.P.R (6th Edn): 304-312 | A.K.Jain (8th Edn) (Vol-1): 82, 85 | G.K.Pal (2nd Edn) (Vol-1): 205, 208

2. Discuss the mechanism of regulation of our body temperature. [10]

Sembulingam (8th Edn): 383 | L.P.R (6th Edn): 712 | G.K.Pal (2nd Edn) (Vol-2): 1300

- WRITE SHORT NOTE ON Deglutition.** [5 × 4 = 20]

Sembulingam (8th Edn): 279 | L.P.R (6th Edn): 544 | A.K.Jain (8th Edn) (Vol-2): 699, 701 | G.K.Pal (2nd Edn) (Vol-2): 1300

- Korotkoff's.** [5 × 4 = 20]

Sembulingam (8th Edn): 661 | L.P.R (6th Edn): 401 | A.K.Jain (8th Edn) (Vol-1): 290 | G.K.Pal (2nd Edn) (Vol-1): 397

- Hypoxia.** [5 × 4 = 20]

Sembulingam (8th Edn): 782 | L.P.R (6th Edn): 613 | A.K.Jain (8th Edn) (Vol-1): 450 | G.K.Pal (2nd Edn) (Vol-1): 585

- Lung surfactant and its applied aspects.** [5 × 4 = 20]

Sembulingam (8th Edn): 577 | A.K.Jain (8th Edn) (Vol-1): 411 | G.K.Pal (2nd Edn) (Vol-1): 528

- T cells v/s B cells.** [5 × 2 = 10]

Sembulingam (8th Edn): 113 | A.K.Jain (8th Edn) (Vol-1): 122 | G.K.Pal (2nd Edn) (Vol-1): 174, 175

- Erythropoietin.** [5 × 2 = 10]

Sembulingam (8th Edn): 76 | L.P.R (6th Edn): 290 | A.K.Jain (8th Edn) (Vol-1): 68 | G.K.Pal (2nd Edn) (Vol-1): 95

- Bile salts.** [5 × 2 = 10]

Sembulingam (8th Edn): 259 | L.P.R (6th Edn): 522 | A.K.Jain (8th Edn) (Vol-1): 237 | G.K.Pal (2nd Edn) (Vol-1): 665

- Function of Gastrin.** [5 × 2 = 10]

Sembulingam (8th Edn): 244 | L.P.R (6th Edn): 502 | A.K.Jain (8th Edn) (Vol-1): 218, 219 | G.K.Pal (2nd Edn) (Vol-1): 621

- Tidal volume.** [5 × 2 = 10]

Sembulingam (8th Edn): 748 | L.P.R (6th Edn): 587 | A.K.Jain (8th Edn) (Vol-1): 407 | G.K.Pal (2nd Edn) (Vol-1): 522

- P-R Interval.** [5 × 2 = 10]

Sembulingam (8th Edn): 602 | L.P.R (6th Edn): 385 | A.K.Jain (8th Edn) (Vol-1): 296 | G.K.Pal (2nd Edn) (Vol-1): 374

N T R U H S

M.B.B.S DEGREE EXAMINATION

July - 2010

First M.B.B.S Examination PHYSIOLOGY

PAPER - II

Max. Marks: 50

1. What are the actions of Thyroid Hormones on metabolism? Give an account of hyposecretion of thyroid hormone. [10]

Sembulingam (8th Edn): 418, 422, 423 | L.P.R (6th Edn): 747 | A.K.Jain (8th Edn) (Vol-2): 621 | G.K.Pal (2nd Edn) (Vol-2): 845, 856

2. Name the different parts of the Ear. Explain the mechanism of hearing. [10]

Sembulingam (8th Edn): 1086, 1095 | L.P.R (6th Edn): 874, 887 | A.K.Jain (8th Edn) (Vol-2): 951 | G.K.Pal (2nd Edn) (Vol-2): 1258

WRITE SHORT NOTE ON Accommodation reflexes.

Sembulingam (8th Edn): 1075 | L.P.R (6th Edn): 901 | A.K.Jain (8th Edn) (Vol-2): 980, 982 | G.K.Pal (2nd Edn) (Vol-2): 1245

WRITE SHORT NOTE ON Ovulation.

Sembulingam (8th Edn): 517 | L.P.R (6th Edn): 826 | A.K.Jain (8th Edn) (Vol-2): 700, 701 | G.K.Pal (2nd Edn) (Vol-2): 982

Diabetes mellitus and diabetes Insipidus.

Sembulingam (8th Edn): 451, 413 | L.P.R (6th Edn): 745, 791 | A.K.Jain (8th Edn) (Vol-2): 650, 579 | G.K.Pal (2nd Edn) (Vol-2): 906, 840

Contraceptive methods.

Sembulingam (8th Edn): 551 | L.P.R (6th Edn): 849 | A.K.Jain (8th Edn) (Vol-2): 713 | G.K.Pal (2nd Edn) (Vol-2): 1021

Resting membrane potential.

Sembulingam (8th Edn): 193 | L.P.R (6th Edn): 35 | A.K.Jain (8th Edn) (Vol-2): 35 | G.K.Pal (2nd Edn) (Vol-1): 61

WRITE BRIEFLY ON Menarche, Menopause.

L.P.R (6th Edn): 830 | A.K.Jain (8th Edn) (Vol-2): 677, 700 | G.K.Pal (2nd Edn) (Vol-2): 950, 953

Gigantism.

Sembulingam (8th Edn): 410 | L.P.R (6th Edn): 740 | A.K.Jain (8th Edn) (Vol-2): 570 | G.K.Pal (2nd Edn) (Vol-2): 829

Astigmatism.

Sembulingam (8th Edn): 1084 | L.P.R (6th Edn): 908 | A.K.Jain (8th Edn) (Vol-2): 986 | G.K.Pal (2nd Edn) (Vol-2): 1229

Waves of ECG.

Sembulingam (8th Edn): 1001 | L.P.R (6th Edn): 234 | A.K.Jain (8th Edn) (Vol-2): 869 | G.K.Pal (2nd Edn) (Vol-2): 1169

Babinski Sign.

Sembulingam (8th Edn): 864, 1005 | L.P.R (6th Edn): 127 | A.K.Jain (8th Edn) (Vol-2): 805 | G.K.Pal (2nd Edn) (Vol-2): 1122, 1128

M.B.B.S DEGREE EXAMINATION

January - 2010

First M.B.B.S Examination

PHYSIOLOGY

PAPER - I

Time: 2½ Hours

Max. Marks: 50

Note : Answer all questions : Illustrate your answer with suitable diagrams.

1. Discuss the mechanism of formation of concentrated urine. Add a note on diuresis.

Sembulingam (8th Edn): 328, 339, 343 | L.P.R (6th Edn): 664 | A.K.Jain (8th Edn) (Vol-I): 501 | G.K. Pal (2nd Edn) (Vol-2): 734, 766

2. Give the composition, functions of gastric juice. Explain the mechanism of secretion of gastric juice.

Sembulingam (8th Edn): 239, 241 | L.P.R (6th Edn): 502-508 | A.K.Jain (8th Edn) (Vol-I): 216, 217 | G.K. Pal (2nd Edn) (Vol-I): 637, 641

WRITE SHORT NOTE ON

Conducting system of the heart.

Sembulingam (8th Edn): 573 | L.P.R (6th Edn): 379 | A.K.Jain (8th Edn) (Vol-I): 178 | G.K. Pal (2nd Edn) (Vol-I): 367

4. Oxygen dissociation curve.

Sembulingam (8th Edn): 769 | L.P.R (6th Edn): 594 | A.K.Jain (8th Edn) (Vol-I): 425, 426 | G.K. Pal (2nd Edn) (Vol-I): 556

5. Effects of mismatched blood transfusion.

Sembulingam (8th Edn): 145, 146 | L.P.R (6th Edn): 351 | A.K.Jain (8th Edn) (Vol-I): 110 | G.K. Pal (2nd Edn) (Vol-I): 129

6. Juxta glomerular apparatus.

Sembulingam (8th Edn): 323 | L.P.R (6th Edn): 643 | A.K.Jain (8th Edn) (Vol-I): 476 | G.K. Pal (2nd Edn) (Vol-2): 721

7. Regulation of body temperature.

Sembulingam (8th Edn): 333 | L.P.R (6th Edn): 712 | A.K.Jain (8th Edn) (Vol-2): 1005 | G.K. Pal (2nd Edn) (Vol-2): 1300

WRITE BRIEFLY ON

Inulin clearance test.

Sembulingam (8th Edn): 358 | L.P.R (6th Edn): 688 | A.K.Jain (8th Edn) (Vol-I): 507 | G.K. Pal (2nd Edn) (Vol-2): 732

9. Anti-Coagulants.

Sembulingam (8th Edn): 137 | L.P.R (6th Edn): 339 | A.K.Jain (8th Edn) (Vol-I): 100 | G.K. Pal (2nd Edn) (Vol-I): 213

10. Chylomicron.

Sembulingam (8th Edn): 306 | L.P.R (6th Edn): 541 | A.K.Jain (8th Edn) (Vol-I): 265 | G.K. Pal (2nd Edn) (Vol-I): 369

11. A.V. Node.

Sembulingam (8th Edn): 574, 615 | L.P.R (6th Edn): 379 | A.K.Jain (8th Edn) (Vol-I): 283 | G.K. Pal (2nd Edn) (Vol-I): 645

12. Peripheral resistance.

Sembulingam (8th Edn): 645 | L.P.R (6th Edn): 418 | A.K.Jain (8th Edn) (Vol-I): 313, 347 | G.K. Pal (2nd Edn) (Vol-2): 1122

Tremor.

Sembulingam (8th Edn): 953 | L.P.R (6th Edn): 183 | G.K. Pal (2nd Edn) (Vol-2): 1141

G.K. Pal (2nd Edn) (Vol-2): 1107

Hemiplegia.

Sembulingam (8th Edn): 905, 961 | L.P.R (6th Edn): 172 | A.K.Jain (8th Edn) (Vol-2): 802, 805 | G.K. Pal (2nd Edn) (Vol-2): 1122

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M.B.B.S DEGREE EXAMINATION

July - 2009

First M.B.B.S Examination**PHYSIOLOGY****PAPER - I****Time: 2½ Hours****Note : Answer all questions : Illustrate your answer with suitable diagrams.**

1. Discuss the uptake of oxygen by the blood and the factors that determine its dissociation.
[**5 + 5 = 10**]

*Sembulingam (8th Edn): 768, 770 | L.P.R (6th Edn): 593-597 | A.K.Jain (8th Edn) (Vol-I): 425 |**G.K. Pal (2nd Edn) (Vol-I): 554*

2. What is Haemoglobin and what are its functions? What factors are required for its formation and discuss the catabolism of Hemoglobin.
[**2 + 2 + 3 + 3 = 10**]

*Sembulingam (8th Edn): 79, 83, 84 | L.P.R (6th Edn): 292-296 | A.K.Jain (8th Edn) (Vol-I): 58, 59, 60, 61 |**G.K. Pal (2nd Edn) (Vol-I): 108-111***WRITE SHORT NOTE ON****Rh-factor and its importance.***Sembulingam (8th Edn): 145 | L.P.R (6th Edn): 347 | A.K.Jain (8th Edn) (Vol-I): 107, 108 |**G.K. Pal (2nd Edn) (Vol-I): 124***Movements of small intestine.***Sembulingam (8th Edn): 286 | L.P.R (6th Edn): 550 | A.K.Jain (8th Edn) (Vol-I): 249 |**G.K. Pal (2nd Edn) (Vol-I): 697***What is asphyxia? Explain its features.***Sembulingam (8th Edn): 786 | L.P.R (6th Edn): 616 | A.K.Jain (8th Edn) (Vol-I): 445 |**G.K. Pal (2nd Edn) (Vol-I): 595***Intra-thoracic and Intra-pulmonary pressures.***Sembulingam (8th Edn): 742, 743 | L.P.R (6th Edn): 572, 573 | A.K.Jain (8th Edn) (Vol-I): 405 |**G.K. Pal (2nd Edn) (Vol-I): 519***Functional Residual capacity.***Sembulingam (8th Edn): 748 | L.P.R (6th Edn): 589 | A.K.Jain (8th Edn) (Vol-I): 408 |**G.K. Pal (2nd Edn) (Vol-I): 523***WRITE BRIEFLY ON****Two non-respiratory functions of Lung.***Sembulingam (8th Edn): 732 | L.P.R (6th Edn): 568 | A.K.Jain (8th Edn) (Vol-I): 399 |**G.K. Pal (2nd Edn) (Vol-I): 514***Morphological classification of anemias.***Sembulingam (8th Edn): 91 | L.P.R (6th Edn): 298 | A.K.Jain (8th Edn) (Vol-I): 71 |**G.K. Pal (2nd Edn) (Vol-I): 114***Jugular venous pulse.***Sembulingam (8th Edn): 678 | L.P.R (6th Edn): 398 | A.K.Jain (8th Edn) (Vol-I): 290 |**G.K. Pal (2nd Edn) (Vol-I): 396***Apnoea.***Sembulingam (8th Edn): 781 | L.P.R (6th Edn): 618 | A.K.Jain (8th Edn) (Vol-I): 445 |**G.K. Pal (2nd Edn) (Vol-I): 578***Mass peristalsis.***Sembulingam (8th Edn): 288 | L.P.R (6th Edn): 531 | A.K.Jain (8th Edn) (Vol-I): 254 |**G.K. Pal (2nd Edn) (Vol-I): 702***Max. Marks: 50**

1. Discuss origin, distribution and function of the sympathetic and Parasympathetic Nerves.
[**2 + 3 + 2½ + 2½ = 10**]

*Sembulingam (8th Edn): 637, 638 | L.P.R (6th Edn): 254-260 | A.K.Jain (8th Edn) (Vol-I): 817, 816 |**G.K. Pal (2nd Edn) (Vol-I): 299, 307*

2. Describe the synthesis, transport and regulation of secretion of Thyroid hormones. Discuss about cretinism.
[**2 + 2 + 2 + 4 = 10**]

*Sembulingam (8th Edn): 416, 418, 421, 424 | L.P.R (6th Edn): 747 | A.K.Jain (8th Edn) (Vol-I): 586 |**G.K. Pal (2nd Edn) (Vol-I): 845, 856***WRITE SHORT NOTE ON**
HCG.
[**5 × 4 = 20**]

3. Discuss origin, distribution and function of the sympathetic and Parasympathetic Nerves.
[**2 + 3 + 2½ + 2½ = 10**]

*Sembulingam (8th Edn): 541 | L.P.R (6th Edn): 843 | A.K.Jain (8th Edn) (Vol-I): 718 |**G.K. Pal (2nd Edn) (Vol-I): 1009***Diagrammatic representation of visual path way.***Sembulingam (8th Edn): 1067 | L.P.R (6th Edn): 915 | A.K.Jain (8th Edn) (Vol-I): 973 |**G.K. Pal (2nd Edn) (Vol-I): 1235***Hearing tests.***Sembulingam (8th Edn): 1101 | L.P.R (6th Edn): 891 | A.K.Jain (8th Edn) (Vol-I): 964 |**G.K. Pal (2nd Edn) (Vol-I): 1274*

6. Four differences between smooth muscle and cardiac muscle.
[**2 + 2 + 2 + 2 = 8**]

*Sembulingam (8th Edn): 172 | A.K.Jain (8th Edn) (Vol-I): 193 |**G.K. Pal (2nd Edn) (Vol-I): 286***Cerebrospinal fluid.***Sembulingam (8th Edn): 1024 | L.P.R (6th Edn): 262 | A.K.Jain (8th Edn) (Vol-I): 365 |**G.K. Pal (2nd Edn) (Vol-I): 1210-1212***WRITE BRIEFLY ON**
Near response of Eye.*Sembulingam (8th Edn): 1073 | L.P.R (6th Edn): 901 | A.K.Jain (8th Edn) (Vol-I): 983 |**G.K. Pal (2nd Edn) (Vol-I): 1228***Milk ejection reflex.***Sembulingam (8th Edn): 409 | L.P.R (6th Edn): 846 | A.K.Jain (8th Edn) (Vol-I): 579 |**G.K. Pal (2nd Edn) (Vol-I): 841***Triple response.***Sembulingam (8th Edn): 700 | L.P.R (6th Edn): 463 | A.K.Jain (8th Edn) (Vol-I): 372***Plantar reflex.***Sembulingam (8th Edn): 862 | L.P.R (6th Edn): 127 | A.K.Jain (8th Edn) (Vol-I): 805***Actin and Myosin.***L.P.R (6th Edn): 77***Max. Marks: 50****Max. Marks: 50****Max. Marks: 50***Sembulingam (8th Edn): 79, 83, 84 | L.P.R (6th Edn): 292-296 | A.K.Jain (8th Edn) (Vol-I): 58, 59, 60, 61 |**G.K. Pal (2nd Edn) (Vol-I): 108-111**G.K. Pal (2nd Edn) (Vol-I): 286**G.K. Pal (2nd Edn) (Vol-I): 286*

Professors Choice Questions

Internal Assessment



PAPER - I

GENERAL PHYSIOLOGY

SHORT QUESTIONS

1. Feed Back Mechanism.
2. List the transport systems in cell membranes.

VERY SHORT QUESTIONS

1. Define active transport. Write the factors affecting it giving examples.

BLOOD

LONG QUESTIONS

1. Name the clotting factors. With the help of a schematic diagram, explain the mechanism of blood coagulation.
Add a note on any two important bleeding disorders.
2. Name the blood group systems. Explain basis for its classification. Add a note on its clinical importance.
3. Classify leucocytes. Give an account of development and functions of different Leucocytes.
4. Define Erythropoiesis. Describe the stages of erythropoiesis and mention the factors influencing it.
5. Describe in detail the process of Haemostasis? Add a short account of some common Bleeding disorders.

SHORT QUESTIONS

1. Write short note on Mismatched blood transfusion
2. Erythropoiesis.
3. Mention functions of platelets.
4. Anaemia.
5. Anticoagulants.

VERY SHORT QUESTIONS

1. Functions of lymph.
2. Land Steiner's Law.
3. Anti-Coagulants.

GASTRO INTESTINAL SYSTEM

LONG QUESTIONS

1. Describe the composition, functions and regulation of secretion of pancreatic juice.
2. Name the movements of small intestine and describe one of themss
3. Name four factors which effect the rate of gastric emptying

SHORT QUESTIONS

1. Pharyngeal phase of deglutition.
2. Movements of small intestine
3. Describe the composition and functions of Bile.
4. Composition and functions of saliva.
5. Mechanism of Hydrochloric acid secretion in stomach.
6. Composition of pancreatic juice.
7. Sham feeding.

VERY SHORT QUESTIONS

1. Role of gastrin
2. Gastrin.
3. Dietary fiber.
4. Bile salts.

RESPIRATORY SYSTEM**LONG QUESTIONS**

1. Describe the uptake, transport and delivery of oxygen.
2. Enumerate the respiratory centers. Explain the neural and chemical regulation of respiration.
3. What is hypoxia? Classify it. Explain them in brief.
4. Discuss the uptake of oxygen by the blood and the factors that determine its dissociation.
5. Describe the chemical regulation of respiration.

SHORT QUESTIONS

1. Lung volumes and capacities with their normal values.
2. Surfactant and its functions.
3. Various stages of Asphyxia.
4. Hypoxia.
5. Oxygen dissociation curve.
6. Intra-thoracic and Intra-pulmonary pressures.
7. Timed vital capacity.

VERY SHORT QUESTIONS

1. Hypoxia – Definition and types.
2. Intra pleural pressure.
3. Role of abdominal muscles in respirations.

CARDIO VASCULAR SYSTEM**LONG QUESTIONS**

1. Describe the following aspects of coronary blood flow:
 - (a) Phasic flow
 - (b) Metabolic regulation
 - (c) Evidences of myocardial ischemia
2. Define mean arterial blood pressure. Describe the various factors regulating it.
3. Define cardiac output, mention the factors affecting cardiac output, describe one method of measurement of cardiac output.
4. Draw diagram of right atrial pressure curve. Describe the pressure changes in the right atrium during a cardiac cycle.
5. Explain the origin, and spread of cardiac impulse. Add a note on heart block.

SHORT QUESTIONS

1. Second Heart Sound
2. Cause for production of heart sounds.
3. Define Cyanosis. Where it is seen?
4. Draw and label waves of ECG (Electro Cardiogram)
5. Venous Return.
6. Enumerate the factors that control the coronary blood flow.
7. P.R Interval and its significances.
8. Enumerate the factors influencing cerebral blood flow

VERY SHORT QUESTIONS

1. Cyanosis.
2. P-R Interval.
3. Draw and label jugular pulse tracing. Mention the causes of these waves.
4. Baro-receptors.

LONG QUESTIONS

Describe the role of counter-current mechanism in kidney function.

SHORT QUESTIONS

1. Juxtaglomerular apparatus.
2. Glomular filtration rate.
3. Cystometrogram.
4. Renal function tests.
5. Renal clearance.
6. What is Tubular maximum for Glucose (TmG).
7. Inulin clearance.
8. Describe the hormonal influence on renal function

VERY SHORT QUESTIONS

1. What is Tubular maximum for Glucose (TmG).
2. Inulin clearance.

PAPER II**NERVE MUSCLE PHYSIOLOGY****SHORT QUESTIONS**

1. Properties of cardiac muscle.
2. Neuromuscular junction.

3. Define Resting Membrane Potential. What is its ionic basis?

4. Briefly describe the two distinctive structural features of mammalian cardiac muscle and mention their functional significance.
5. Mention the successive events at the neuromuscular junction when the motor nerve is stimulated

VERY SHORT QUESTIONS

1. Rigor mortis
2. Refractory period.

CENTRAL NERVOUS SYSTEM**LONG QUESTIONS**

1. Describe the connections, functions of basal ganglia. Add a note on parkinsonism.
2. Draw a labelled diagram of corticospinal tracts. Explain the effect of decerebration on their function.
3. Mention the formation, composition and functions of Cerebro Spinal Fluid (C.S.F.).
4. Give an account of the connections and functions of Hypothalamus.
5. Describe the chief connections and functions of Basal ganglia. Add a note on basal ganglia disorders.
6. Describe the hormones of posterior pituitary gland and their functions. How is their secretion regulated

SHORT QUESTIONS

1. Role of hypothalamus in regulation of food intake.
2. Parkinsonism and physiological basis of a drug used in its treatment.
3. Referred pain.
4. Functions of Limbic system.
5. List the differences between upper motor neuron lesion (UMN) and lower motor neuron lesion (LMN).
6. Brown-Sequard syndrome.
7. Diabetes Insipidus.
8. Functions of C.S.F.
9. Describe briefly the functions of hypothalamus.
10. Give a brief account of the role of ARAS.

VERY SHORT QUESTIONS

1. Aphasia – Definition and types.
2. Babinski Sign.
3. Plantar reflex.

LONG QUESTIONS

1. Mention normal blood calcium level. Explain how it is regulated.
2. Describe the synthesis, transport and regulation of secretion of Thyroid hormones. Discuss about cretinism.
3. Describe the synthesis, transport and regulation of secretion of Thyroid hormones. Discuss about cretinism.
4. What are Catecholamines? Explain the synthesis metabolism actions and regulation of secretion of Catecholamines.
5. What are the functions of Growth hormone. How is it regulated. Discuss the effects of Hyper and Hyposecretion of growth hormone.
6. Name the Gonadotrophic hormones and describe their functions.

SHORT QUESTIONS

1. Acromegaly.
2. Write briefly on Cretinism.
3. Addison's disease.
4. Myxoedema.
5. Thyroid function tests.
6. Tetany.
7. Cretin and pituitary dwarfs.
8. Oxytocin.

VERY SHORT QUESTIONS

1. Cretinism.

REPRODUCTIVE PHYSIOLOGY**LONG QUESTIONS**

1. Contraceptive methods.
2. Describe the endometrial changes during a normal menstrual cycle and their hormonal control. Correlate them with the ovarian cycle.
3. Describe the commonly used pregnancy test. Explaining the basis of these.

SHORT QUESTIONS

1. Actions of estrogen.
2. Stage of spermatogenesis.
3. Contraceptive methods in females.
4. Family planning methods in males.
5. hCG.
6. When does ovulation occur and how can it be determined? What is its significance?
7. Sertoli cells.
8. Oral Contraceptives.
9. Stages of uterine menstrual cycle.
10. Describe the physiological basis of contraceptive methods in males and females.

VERY SHORT QUESTIONS

1. Role of sertoli cells.
2. Write briefly on corpus luteum.

SPECIAL SENSES**SHORT QUESTIONS**

1. Cochlear microphonics.
2. Define hypermetropia. Explain the method of its correction.
3. Refractive errors in eye and their correction.
4. Colour blindness.
5. Colour vision.
6. Draw a neat diagram of light reflex pathway and label it.
7. Visual pathway.
8. Hearing tests.
9. Functions of middle ear.
10. Taste pathway.
11. Organ of corti.
12. Dark Adaptation.

VERY SHORT QUESTIONS

1. Dark adaptations
2. Tympanic reflex.
3. Tests for hearing.
4. Mention the functions of middle ear.
5. Taste buds.
6. Presbyopia.

SKIN**SHORT QUESTIONS**

1. Functions of skin.
2. Triple response