

PHYSIOLOGY INCLUDING BIOCHEMISTRY

H 103

I B.H.M.S. Examination, October 2001  
PHYSIOLOGY INCLUDING BIOCHEMISTRY (Paper – I)

Date: 19-10-2001

Time: 10.30 a.m. to 1.30 p.m.

Marks: 70

SECTION – B

2. Write briefly on any three: 15
- A) Hypoxia
  - B) Osmosis
  - C) Myopia
  - D) Surfactant
3. Write a note on any two: 10
- A) Clotting (Coagulation)
  - B) Blood Groups
  - C) Platelets
4. Write notes on: 10
- A) Heart valves
  - B) Regulation of Heart Rate

SECTION – C

5. Describe nervous regulation of the respiration. 15
6. Describe Glomerular filtration rate and its regulation. 10
7. Describe the taste bud and Gustatory Pathway. 10

OR

Describe structure and functions of skin with diagram.

Q - 022

4 ✓

23. Normal blood flow to brain per minute is  
a) 100 ml. ✓  
b) 750 ml. ✓  
c) 1000 ml.  
d) 1500 ml.
24. Systolic blood pressure depends on  
a) Venous filling ✓  
b) Peripheral resistance ✓  
c) Cardiac output ✓  
d) Both B and C ✓
25. Tachycardia means  
a) Increase in heart rate ✓  
b) Decrease in heart rate ✓  
c) Stoppage of heart  
d) None of these
26. Normal membrane potential is  
a) -90 mV. ✓  
b) -10 mV.  
c) +10 mV.  
d) None of these
27. Normal vital capacity in adults is  
a) 1 litre  
b) 2 litre  
c) 5 litre ✓  
d) 8 litre
28. Oxygen content of arterial blood per 100 ml. is  
a) 5 ml.  
b) 19 ml. ✓  
c) 100 ml.  
d) None of these
29. Asphyxia is due to  
a) Lack of oxygen in blood  
b) Excess of oxygen in blood  
c) Lack of oxygen with excess of carbon-di-oxide ✓  
d) None of these
30. Periodic breathing is seen in  
a) Uraemia ✓  
b) High altitudes ✓  
c) After hyper ventilation  
d) All of these ✓

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SPACE FOR ROUGH WORK



10. Which of the following is not an anticoagulant
- a) Heparin ✓
  - b) Citron ✓
  - c) Calcium Oxalate
  - d) Citrate
11. Receptors for taste is
- a) Rods
  - b) Cones
  - c) Taste buds ✓
  - d) None of these
12. Presbyopia is corrected by
- a) Convex lens ✓
  - b) Concave lens
  - c) Cylindrical lens
  - d) None of these
13. Rods are concerned with
- a) Bright vision
  - b) Dim light vision ✓
  - c) Colour vision
  - d) None of these
14. Range for hearing is (20, -20,000)
- a) 10 - 100 cycles per second
  - b) 20 - 20000 cycles per second ✓
  - c) Above 50000 cycles per second
  - d) None of these
15. Normal body temperature is
- a) 10° C
  - b) 20° C
  - c) 37.4° C ✓
  - d) 40° C
16. Heat is lost from the body through
- a) Sweating ✓
  - b) Shivering
  - c) Both of these
  - d) None of these
17. The value of normal glomerular filtration in litres per day is
- a) 120
  - b) 130
  - c) 170 ✓
  - d) 200
18. The reaction of normal urine is
- a) Acidic ✓
  - b) Alkaline
  - c) Neutral
  - d) None of these
19. Normal desire for micturition is felt when the amount of urine in bladder is
- a) 100 ml.
  - b) 400 ml. ✓
  - c) Neutral
  - d) 1000 ml.
20. Glomerular filtration rate is found by
- a) Water excretion test
  - b) Insulin clearance test
  - c) Inulin clearance test ✓
  - d) None of these
21. First heart sound is due to
- a) Closure of aortic valve
  - b) Closure of pulmonary valve
  - c) Closure of A-V valves ✓
  - d) None of these
22. Average diameter of capillary is
- a) 4-8  $\mu$  ✓
  - b) 1-2  $\mu$
  - c) 20-30  $\mu$
  - d) 40  $\mu$

I B.H.M.S. Examination, 2001  
 PHYSIOLOGY INCLUDING BIOCHEMISTRY (Paper - I)

Date: 9-6-2001

Total Marks: 100

Time: 10.30 a.m. to 1.30 p.m.

Instruction: Cross only ONE block for correct answer.

SECTION - A  
 MULTIPLE CHOICE QUESTIONS

Time: 30 minutes

Marks: 30

1. Normal cardiac cycle time in second is
  - a) 0.5
  - b) 1.1 ✓
  - c) 1.5
  - d) 2.0
2. Elter time measures
  - a) Arm to lung time
  - b) Arm to arm time
  - c) Arm to lung time ✓
  - d) None of these
3. Coronary blood flow is increased in
  - a) Haemorrhage
  - b) Shock
  - c) Exercise ✓
  - d) None of these
4. Factor VIII is also called as
  - a) Prothrombin
  - b) Calcium
  - c) Antihemophilic globulin ✓
  - d) None of these
5. One gram of haemoglobin after full saturation combines with
  - a) 1.34 ml. of oxygen ✓
  - b) 10 ml. of oxygen
  - c) 14 ml. of oxygen
  - d) 19 ml. of oxygen
6. Normal blood volume in litres in adult male is
  - a) 2
  - b) 5 ✓
  - c) 8
  - d) 10
7. Site of production of erythropoietin is
  - a) Liver
  - b) Spleen
  - c) Bone-marrow
  - d) Kidney ✓
8. Most common connective tissue cell is
  - a) Mast cell
  - b) Fibroblasts
  - c) Plasma cell ✓
  - d) None of these
9. Eosinophils secrete
  - a) Mucous
  - b) Water
  - c) Histamine ✓
  - d) None of these ✓

Name of the Examination \_\_\_\_\_

Subject: \_\_\_\_\_ Section: **A**

Question Booklet Version
<b>Q - 022</b>

Roll No.

Answer Sheet No.

Question Booklet Sr. No.
<b>400312</b>

Date: \_\_\_\_\_

This is to certify that, the entries of Examination, Subject, Roll No. and Answer Sheet No. have been verified.

Candidate's Signature \_\_\_\_\_

Invigilator's Signature \_\_\_\_\_

**INSTRUCTIONS TO CANDIDATES**

- 1) This question booklet contains objective type questions.
- 2) The question paper and OCR Answer Sheet are issued separately at the start of the examination.
- 3) Candidate should carefully read the instructions printed on the question booklet and answer sheet and make correct entries on the Answer Sheet. As ANSWER SHEETS are designed to suit the OPTICAL CHARACTER READER (OCR) SYSTEM, special care should be taken to make correct entries. Special care should be taken to fill question booklet VERSION and SERIAL NO., ROLL NO. accurately. The correctness of entries has to be cross-checked by the Invigilator. The candidate must sign on the Answer Sheet and question booklet.
- 4) During the time of examinations:
  - a) Read each question carefully.
  - b) Determine the correct answer from out of the four available options given under each questions.
  - c) Cross 'X' in the correct block  below the question number in the answer sheet with Blue Ball Point Pen only e.g.

Q. No. 13: The product of  $0.5 \times 0.05$  is

(Question Booklet)

- (a) 0.05
- (b) 0.005
- (c) 0.025
- (d) 0.25

(Answer Sheet)

Q. No.	11	12	13	14
a	<input type="checkbox"/>	a <input type="checkbox"/>	a <input type="checkbox"/>	a <input type="checkbox"/>
b	<input type="checkbox"/>	b <input type="checkbox"/>	b <input type="checkbox"/>	b <input type="checkbox"/>
c	<input type="checkbox"/>	c <input type="checkbox"/>	c <input checked="" type="checkbox"/>	c <input type="checkbox"/>
d	<input type="checkbox"/>	d <input type="checkbox"/>	d <input type="checkbox"/>	d <input type="checkbox"/>

Thus as the correct answer is 'c' the candidate should cross the block corresponding to 'c' under Question No. 13 on the answer sheet.

- 5) Rough work should be done only on the blank space provided on the question booklet. **Rough work should not be done on the Answer Sheet.**
- 6) Immediately after the prescribed examination time is over, the answer sheet and the question booklet is to be returned to the Invigilator after both the candidate and Invigilator have signed.
- 7) **No candidate is allowed to leave the examination hall till the examination session is over.**

June-2001

Q - 103

I.B.H.M.S. Examination, 2001  
PHYSIOLOGY INCLUDING BIOCHEMISTRY (Paper - I)



Date: 9-6-2001  
Time: 10.30 a.m. to 1.30 p.m.

SECTION - B

Time: 2 hrs. 30 minutes

Marks: 70

2. Write briefly on any THREE:

- A) Dead space air.
- B) Diffusion.
- C) Functions of middle ear.
- D) Taste buds.

15

3. Write notes on any TWO:

- A) RH factor.
- B) Haemoglobin.
- C) Radial pulse tracing.

10

4. Write notes on:

- A) Surface tension.
- B) Cerebral circulation.

10

SECTION - C

5. Describe the transport of carbon-di-oxide in the body.

15

6. Describe the renal function tests.

10

7. Describe the regulation of body temperature.

10

OR

Describe the visual pathways and the effects of its lesions at various levels.

Name of the Examination: \_\_\_\_\_  
 Subject : \_\_\_\_\_ **Section : A**

Question Booklet Version
<b>H 019</b>

Roll No.				

Question Booklet Sr. No.
<b>100324</b>

Answer Sheet No.				

Date: \_\_\_\_\_

This is to certify that, the entries of Examination, Subject, Roll No. and Answer Sheet No. have been verified.

Candidate's Signature \_\_\_\_\_

Invigilator's Signature \_\_\_\_\_

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 (Question Booklet)

- (a) 0.05
- (b) 0.005
- (c) 0.025
- (d) 0.25

(Answer Sheet)

Q. No.	11	12	13	14
a	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thus as the correct answer is 'c' the candidate should cross the block corresponding to 'c' under Question No. 13 on the answer sheet.

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Immediately after the prescribed examination time is over, the answer sheet and the question booklet be returned to the invigilator after both the candidate and invigilator have signed.

**Candidate is allowed to leave the examination hall till the examination session is over.**

I B.H.M.S. Examination, October 2001  
PHYSIOLOGY INCLUDING BIOCHEMISTRY (Paper - I)

Date: 19-10-2001

Total Marks: 100

Time: 10.30 a.m. to 1.30 p.m

SECTION - A

Instruction: Cross only one block for correct answer.

Time: 30 Minutes

: 30

1. Heart receives about
 

<input checked="" type="checkbox"/> a) 1% of Cardiac output	<input checked="" type="checkbox"/> c) 5% of cardiac output
<input checked="" type="checkbox"/> b) 2% of cardiac output	<input type="checkbox"/> d) 10% of cardiac output
2. Vasovagal syncope is called
 

a) Hypovolemic shock	<input checked="" type="checkbox"/> c) Emotional shock
b) Anaphylactic shock	d) Septicemic shock
3. During exercise, blood does not decrease in
 

<input checked="" type="checkbox"/> a) Cutaneous circulation	<input type="checkbox"/> c) Coronary circulation
b) Hepatosplanchnic circulation	d) Renal circulation
4. Hepatic blood flow is
 

a) 500 ml/min.	c) 1200 ml/min.
b) 800 ml/min.	<input checked="" type="checkbox"/> d) 1500 ml/min.
5. Life of R.B.C.'s is
 

a) 30 days	<input checked="" type="checkbox"/> c) 120 days
b) 90 days	d) 160 days
6. In Hemophilia
 

a) Factor II is decreased	<input checked="" type="checkbox"/> c) Clotting time is increased
b) Bleeding time is increased	d) Prothrombin time is increased
7. Haemoglobin first appears in
 

<input checked="" type="checkbox"/> a) Early Normoblast	c) Late Normoblast
<input checked="" type="checkbox"/> b) Intermediate Normoblast	d) Pronormoblast
8. The commonest site of Haemopoiesis in foetus is
 

<input checked="" type="checkbox"/> a) Liver	c) Bone Marrow
<input checked="" type="checkbox"/> b) Spleen	d) Gut
9. The maximum pressure in the Aorta during ventricular phase of cardiac cycle
 

a) 140 mm. of Hg	c) 100 mm. of Hg
<input checked="" type="checkbox"/> b) 120 mm. of Hg	d) 80 mm. of Hg