

ACPM Medical College Dhule

First Internal Assessment Examination-December 2019

Duration: 30 Minutes

Marks 20

Instructions:

- Answer the correct option by putting the "Cross" in the appropriate box of the question number in Answer sheet once only.
- Use blue ballpoint pen only.
- Each question carries one mark.
- Students will not be allotted mark if he/she overwrites strikes or put white ink on the cross once marked.

Section A

- Cholesterol in the cell membrane most likely serves which of the following functions?
 - Increases membrane permeability
 - Increases membrane turnover
 - Decreases membrane fluidity
 - Decreases membrane stability
- Which one of the following would decrease generation of cardiac impulse by sinoatrial node?
 - Decreased sodium influx
 - Increased Chloride efflux
 - Increased potassium efflux
 - Increased calcium influx
- A biomedical researcher needs to quantify total body water (TBW) in an experimental subject. Which of the following substances would most likely use to assess TBW?
 - Inulin
 - Mannitol
 - Deuterium
 - ^{131}I -albumin
- What is the purpose of the prothrombin test in monitoring hemostasis?
 - Measures factors of the extrinsic pathway
 - Detects platelet dysfunction
 - Detects presence of aspirin
 - Monitors heparin function
- A mother of blood type A+ who already has one perfectly healthy child, delivered second child one day earlier. The father is of blood group O-. Knowing that the child is of blood group O- (O, Rh-), what would you expect to find in this child?
 - The child will have erythroblastosis fetalis due to rhesus incompatibility
 - The child will have erythroblastosis fetalis due to ABO blood group incompatibility
 - The child will have both A and B
 - The child would not be expected to develop hemolytic disease of the newborn
- Which couple cannot be the biological parents of a child with blood group AB?
 - Mother AB, father OO
 - Mother OB, father AA
 - Mother AA, father BB
 - Mother OA, father OB
- Which of the following is correct regarding sympathetic stimulation of the heart?
 - Releases acetylcholine at the sympathetic endings
 - Decreases sinus nodal discharge rate
 - Decreases excitability of the heart
 - Releases norepinephrine at the sympathetic endings
- Baroreceptors reflex mechanism is one of the short-term mechanisms for blood pressure regulation. Which of the following vascular responses would be expected when baroreceptor are stimulated due to clamping of carotid artery before its bifurcation?

EDV	Systolic BP	HR	Contractility
A. increased	increased	increased	increased
B. increased	decreased	decreased	decreased
C. increased	increased	decreased	decreased
D. increased	increased	increased	decreased
- If the intracellular concentration of a membrane-permeant substance doubles from 10 to 30 mM and the extracellular concentration remain at 5 mM, the rate of diffusion of that substance across the plasma membrane will increase by which of the following value?
 - 2
 - 3
 - 4
 - 5



Hum
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Department of Physiology
A.C.P.M. Medical College, Dhule.

ACPM Medical College Dhule

First Internal Assessment Examination-December 2019

Duration: 2 and ½ hours

Total Marks 100

SECTION "B" & "C"

- 1) Use blue/black ballpoint pen only.
- 2) Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.
- 3) All questions are compulsory. The number to the right indicates full marks.
- 4) Draw diagrams wherever necessary.
- 5) Use a common answer book for all sections.

SECTION "B"

Question No. 2: Write Short Answer of any four out of five Questions.

[4X5 Marks]

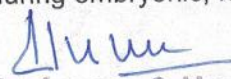
- A. A 32-year-old woman presents to her primary care physician's office with difficulty in chewing food. She states that when she eats certain foods that require a significant amount of chewing (meat), her jaw muscles become weak and "tired." After a period of rest, her jaw muscles regain their strength until she eats again. The patient is diagnosed with myasthenia gravis and is started on neostigmine, an acetylcholinesterase (AChE) inhibitor.
- a. Explain the underlying physiological mechanism of myasthenia gravis.
 - b. What effect would an AChE inhibitor have at the neuromuscular junction?
 - c. How would a large reduction in extracellular $[Ca^{2+}]$ affect synaptic transmission at the neuromuscular junction?
 - d. What is the ionic mechanism that underlies the endplate potential (EPP) produced by acetylcholine (ACh) release?
- B. Genesis of Resting Membrane Potential
- C. Mechanism of humoral mediated immunity
- D. Mechanism of blood coagulation
- E. Physiological basis of Erythroblastosis fetalis



Question No. 3: Write Long Answer of any two out of three Questions.

[2X10 Marks]

- A. Classify the transport mechanisms across the cell membrane with suitable examples. Describe in details mechanism of transport of Bicarbonate, Hydrogen, and water under the influence of ADH, and Sodium under the influence of Aldosterone.
- B. Define anemia and its different basis of classification. Explain clinical features, blood indices, and physiological mechanism of megaloblastic and Iron deficiency.
- C. Explain the term Erythropoiesis. Describe the site & stages of Erythropoiesis during embryonic, fetal, and adult life. Describe the regulation of erythropoiesis.


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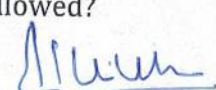
ACPM Medical College Dhule
Second Internal Assessment Examination-June 2020
Total Marks 100

Section A [20 Marks] {4 clinical based}

Instructions:

- A. Answer the correct option by putting the "Cross" in the appropriate box of the question number in Answer sheet once only.
 - B. Use blue ballpoint pen only.
 - C. Each question carries one mark.
 - D. Students will not be allotted mark if overwrites strikes or put white ink on the cross once marked.
1. Which of the following would be expected in a child with dwarfism due to pituitary dysfunction?
 - a. Increased Plasma [IGF-I] level
 - b. Decreased Plasma [IGF-I] level
 - c. Increased GHRH Secretion
 - d. Increased plasma glucose level
 2. Which of the following increases growth hormone secretion?
 - a. IGF-I
 - b. Somatostatin
 - c. Hypoglycemia
 - d. Exogenous growth hormone administration
 3. What is the consequence of the lack of adequate chorionic gonadotropin after fertilization?
 - a. Spontaneous abortion
 - b. Early labor
 - c. Delayed labor
 - d. Lack of ovulation
 4. What is the mechanism by which the zona pellucida becomes "hardened" after penetration of a sperm cell?
 - a. A reduction in estradiol
 - b. The proteins released from the acrosome of the sperm
 - c. An increase in intracellular calcium in the oocyte
 - d. An increase in testosterone that affects the sperm
 5. Which of the following lung volumes or capacities cannot be determined with a simple spirometer?
 - a. Vital capacity
 - b. Expiratory reserve volume
 - c. Tidal volume
 - d. Functional residual capacity
 6. If a lung having a normal ventilation-perfusion ratio ($=1$) suddenly develops a ventilation/perfusion ratio of <1 , which of the following will occur?
 - a. A decrease in arterial pO_2
 - b. An increase in alveolar pO_2
 - c. A decrease in cardiac output
 - d. A decrease in arterial pCO_2
 7. A 50-year-old man participates in a marathon. Which muscle(s) are being used for inspiration during the marathon?
 - a. Gastrocnemius
 - b. Internal intercostals
 - c. Abdominals
 - d. External intercostals
 8. Which of the following elements of the defecation apparatus requires input from higher centers of the brain in a healthy person under normal conditions?
 - a. Peristaltic contractions of the sigmoid colon
 - b. Rectal peristalsis
 - c. Constriction of external anal sphincter
 - d. Constriction of internal anal sphincter
 9. The primary purpose of migrating motility complexes is which of the following?
 - a. Move chyme through the small intestine during a meal
 - b. Promote gastric emptying as a meal is digested
 - c. Stimulation of mass movements
 - d. Sweep undigested residue toward the colon
 10. Which of the following structures is critical for determining whether a bolus of food is small enough to be swallowed?




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- a. Epiglottis
 - b. Larynx
 - c. Palatopharyngeal folds
 - d. Soft palate
11. Which of the following set of activities occur during the act of vomiting?
- a. Contraction of Lower Esophageal Sphincter
 - b. Contraction of Upper Esophageal Sphincter
 - c. Contraction of Abdominal Muscles
 - d. Relaxation of Diaphragm
12. A 67-year-old man has heartburn and stomach pain. Endoscopy shows several small gastric ulcers in the corpus. Biopsies were positive for *Helicobacter pylori*, which promotes gastric ulcer formation by damaging which of the following?
- a. Circular muscle layer
 - b. Gastric mucosal barrier
 - c. Myenteric plexus
 - d. Parietal cells
13. A neurophysiology experiment is conducted in monkeys in which the amygdalae are surgically ablated bilaterally. Which of the following is most likely to be increased 6 months after ablation?
- a. Memory
 - b. Paranoia
 - c. Sex drive
 - d. Tremors
14. Delta waves recorded in an adult during a typical electroencephalogram are thought to be indicative of which of the following?
- a. Intrinsic activity of the cortex
 - b. Emotional stress and frustration
 - c. Intense mental activity
 - d. Quiet resting states of cerebration
15. Damage to the hippocampus may result in which of the following?
- a. Inability to form new memories (i.e., anterograde amnesia)
 - b. Deficit in the sense of smell
 - c. Inability to recall past memories (i.e., retrograde amnesia)
 - d. Dysdiadochokinesia
16. Post tetanic facilitation is thought to be the result of which of the following?
- a. Opening voltage-gated sodium channels
 - b. Opening transmitter-gated potassium channels
 - c. A buildup of calcium in the presynaptic terminal
 - d. Electrotonic conduction
17. Neurological disease associated with the cerebellum produces which of the following types of symptoms?
- a. Resting tremor
 - b. Athetosis
 - c. Rigidity
 - d. Ataxia
18. Chorea and choreiform movement is a sign of dysfunction in which of the following brain region?
- a. Substantia nigra
 - b. Caudate nucleus and putamen
 - c. Subthalamic nucleus
 - d. Thalamus
19. The stretch reflex is used clinically to assess which of the following?
- a. Integrity of the corticospinal tract
 - b. Function of the vestibulo-ocular reflex
 - c. Level of activity of the gamma motor system
 - d. Function of the vestibular system
20. Which of the following best describes the function of the Golgi tendon organ?
- a. To sense the length of the muscle tendon in which it is located
 - b. To provide the cerebellum with feedback information concerning which motor impulses have arrived at the anterior motor neurons of the spinal cord
 - c. To transmit muscle stretch information to higher brain centers
 - d. To sense muscle tension and equalize the contractile force exerted by groups of muscle fibers in a muscle



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Second Internal Assessment Examination-June 2020
Total Marks 100

SECTION "B" & "C"

- 1) Use blue/black ballpoint pen only.
- 2) Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.
- 3) All questions are compulsory.
- 4) The number to the right indicates full marks.
- 5) Draw diagrams wherever necessary.
- 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame.
- 7) Use a common answer book for all sections.

SECTION "B" (40 Marks):

Question No. 2: Write Brief Answer of any ten out of Eleven Questions. [2X10=20 Marks]

1. Clinical features of Diabetes Insipidus
2. Hypokinetic features of Parkinson's disease
3. Function of any two GI hormones
4. Functions of surfactant
5. Principles of Oral contraception
6. List of hypothalamic Nu.
7. Features of pulmonary circulation
8. Factor affecting gastric emptying
9. Functions of bile
10. Features of tetany
11. List the properties of synapse

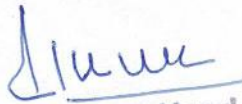
Question No. 3: Write Short Answer of any eight out of nine Questions. [8X5=40 Marks] {2 clinical based}

1. Brown Séquard Syndrome
2. Adrenal Deficiency syndrome
3. Mechanism of HCl Secretion
4. Origin, course and termination of Cortico-spinal Pathway
5. Ventilation-perfusion ratio
6. Sleep-wakeful cycle
7. Cerebellar function tests
8. Consequences of hypersecretion of growth hormones before puberty
9. Pain analgesia system

Question No. 4: Write Long Answer of any two out of three Questions. [2X10=20 Marks]

- A. Describe transport of carbon di oxide from tissue to lung in detail. Write a note Bohr's effect and Haldane effect.
- B. Define ovulation. Explain morphological and hormonal changes during different phases of menstrual cycle.
- C. Describe composition, functions and regulation of pancreatic juice. Write a note on acute pancreatitis.




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MBBS 2019-2020
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Date: 12-6-2020

Time: 10am - 3pm

Instructions

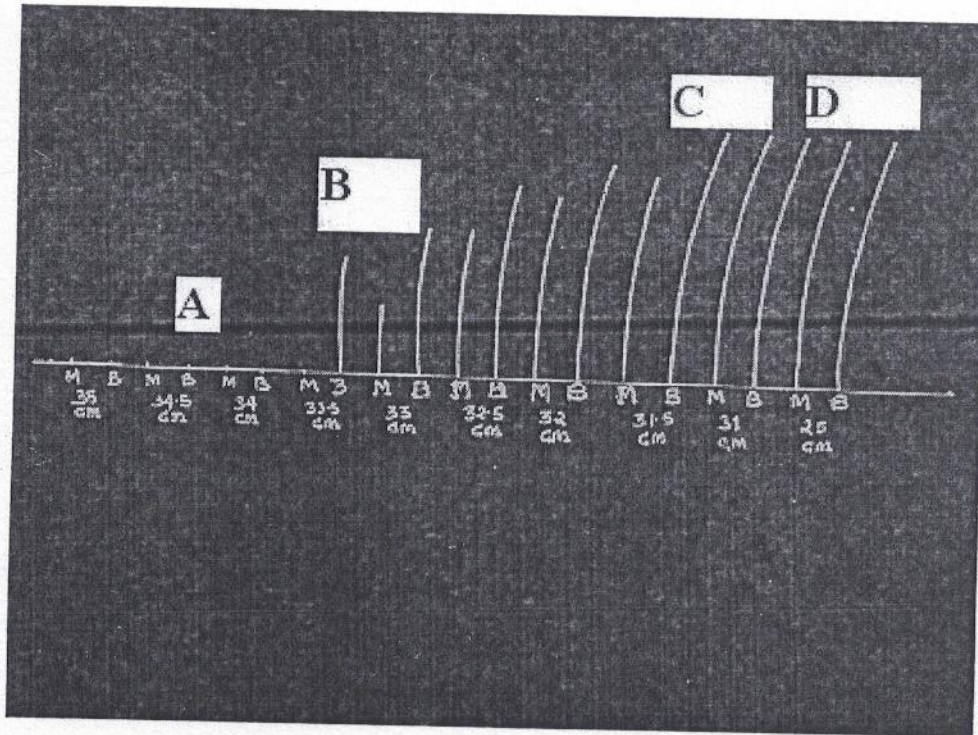
1. All questions are compulsory
2. Write your Roll No..on each page.
3. Give numbering to all pages.
4. Submit the soft copy before 3pm on the same day.
5. Follow the sequence of questions while answering.
6. Write question and sub question number correctly.
7. Submit the hard copy in department after you join the college.




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Q. No. 1

(3 marks)



1. Identify the graph.
2. What label C indicates? Why there is no increase in force of contraction after C?
3. Write the application of this experiment.



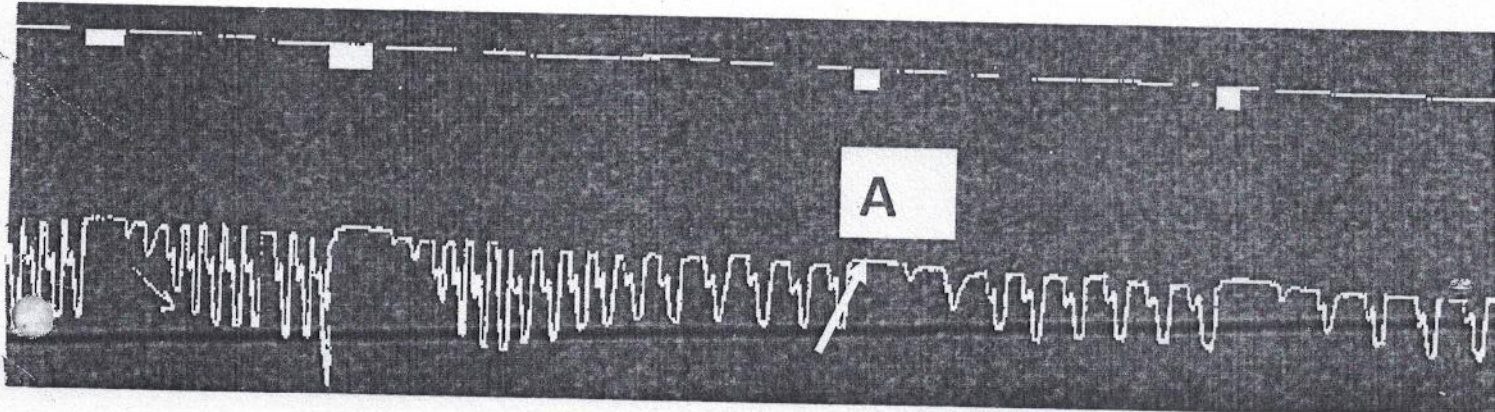
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Q. No. 2

(3 marks)



1. Identify graph

2. Identify "A" by giving reasons?

3. What is its site of action and mechanism of action?



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Q. No. 3

(3 marks)

Calculate alveolar ventilation from the following data:-

Tidal volume = 500 ml

Dead space = 150 ml

Rate of respiration = 12 / min

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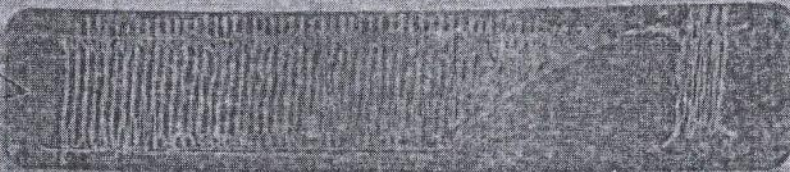


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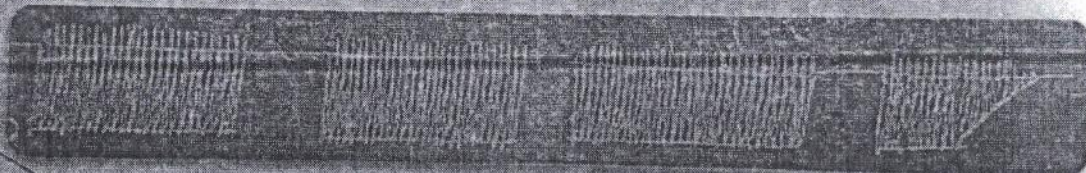
Q. No. 4

(3 marks)

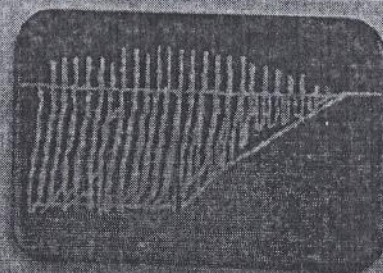
A



B



C



1) Identify the graph.

2) Which recording demonstrate the maximum work done and why?

3) What are the factors affecting work done in this experiment?



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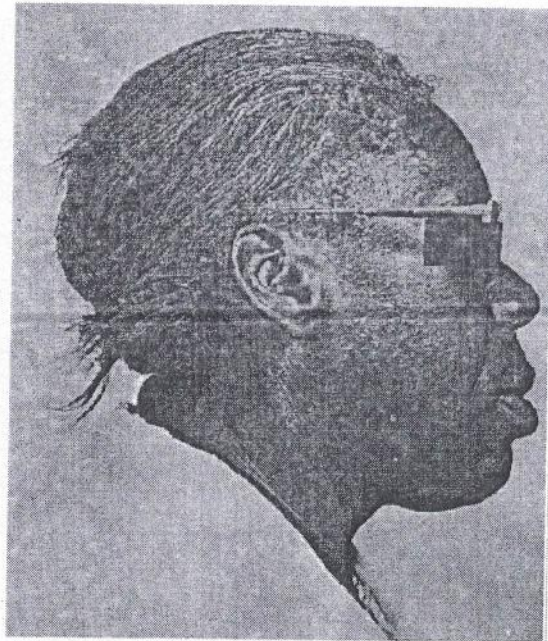
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Q. No. 5

(3 marks)



- 1) Identify the condition in above photograph.
- 2) Write the underlying pathology.
- 3) Enumerate its clinical features.



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Q. No. 6 (3 marks)

Prepare checklist to find out position of apex beat by palpatory method.

Q. No. 7 (3 marks)

Enumerate the observations during inspection of a patient of bronchial asthma. What is Trail's sign?

Q. No. 8 (3 marks)

Prepare checklist for examination of ocular movements.

Which cranial nerve is affected in given photograph?



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Q. No. 9

(3 marks)

A 78 years old woman has a history of fainting and occasional chest pains associated with physical exertion. She is diagnosed with aortic stenosis. The physician has advised hemodynamic studies reveals that cardiac output and systolic BP was less than normal but diastolic BP was slightly higher than normal. He performed clinical examination of cardiovascular system.

- 1) What changes would you expect in radial pulse examination in this patient?
- 2) What water hammer pulse?
- 3) What will be effect of age on radial pulse?



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Q.No.10 (3 marks)

A 27- year old woman with diabetes presents to her physician with complains of transient unconsciousness when she changes her posture from supine to standing. Her resting blood pressure was found to be normal. Clinical history reveals that she has excessive menstrual bleeding since last few months. Drug history reveals that her antihypertensive drug dose is recently reviewed and increased. The drug prescribed is decreasing vascular smooth muscle contractile activity without affecting ventricular contractility.

- 1) What precautions will you take while measuring blood pressure of this patient?
- 2) What was the reason to increased her antihypertensive drug?
- 3) Why change in posture causes unconsciousness?

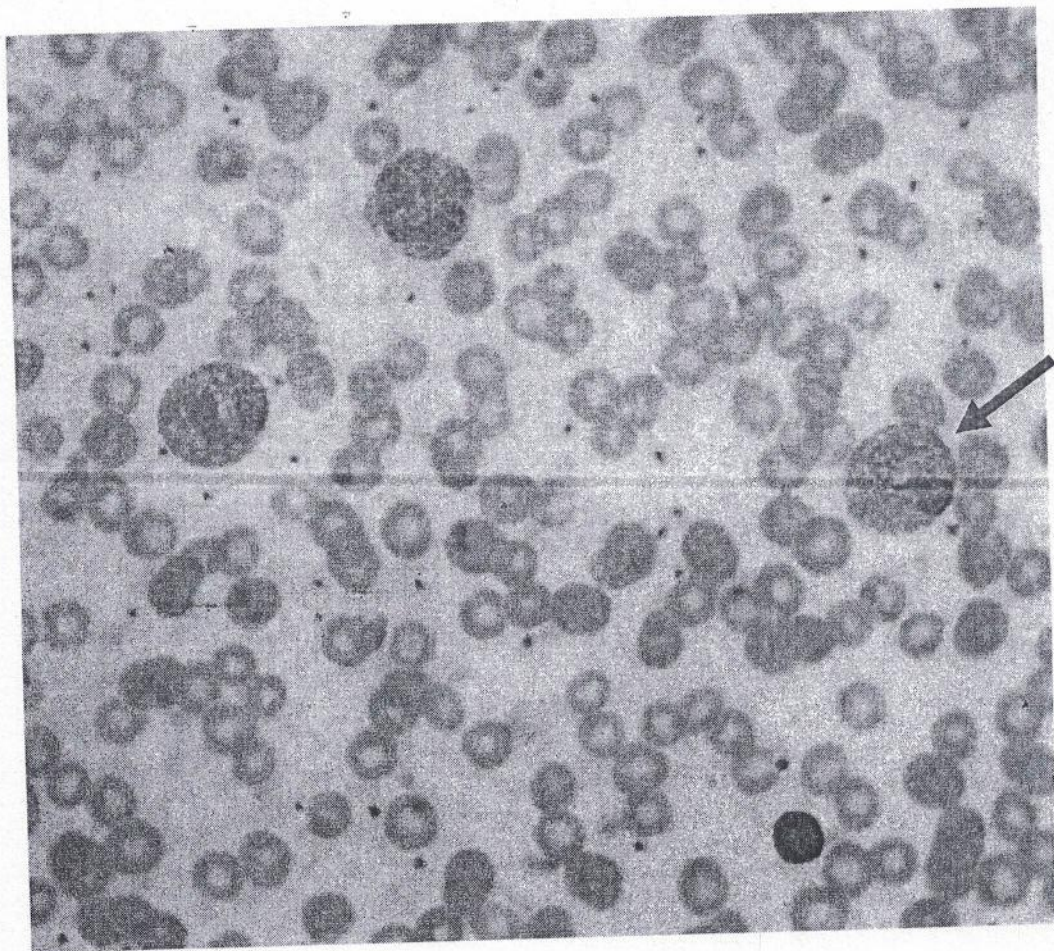
Q. No. 11

- A. Identify the cell and name the conditions in which its count is increased.
(1 mark)



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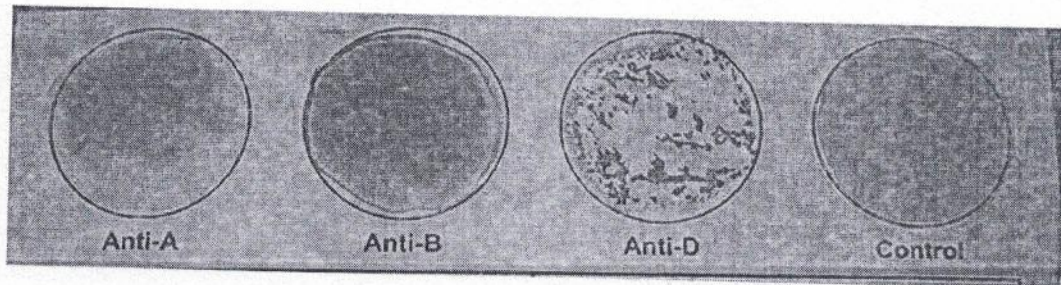
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- B. From the findings shown in photograph below, identify the blood group of patient. What is the use of control? (1 mark)



C. Data:-

(1 marks)

PCV = 25 %

Hb concentration = 9 gm. %

R.B.C count = 3 million / mm³ of blood.

On the basis of given blood indices, Identify the type of anemia and state its probable cause.

- D. The severity and extent of DIC can change over time. Hence laboratory testing is often performed at several intervals to monitor a person's status. List the routine tests that may be performed. [1 mark]

- E. What are the normal values of ESR and PCV in normal adult Male and Female? [1 mark]



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Maharashtra University of Health Sciences, Nashik
A.C.P.M. Medical College, Dhule
Department of Physiology
Preliminary examination, Paper - I
Ist MBBS Regular batch 2019 - 20

Date: 27/7/2020

Time: 10 am to 1 pm

Total Marks: 50

Instructions:

1. Use blue/black ball point pen only.
2. Do not write anything on blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort unfair means.
3. All questions are compulsory.
4. The number to the right indicates full marks.
5. Draw diagrams wherever necessary.
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7. Use a common answer book for all sections.

Section – A

(10 marks)

1. Normal V: P ratio at middle of lungs is
 - a) 0.3
 - b) 0.84
 - c) 1.5
 - d) 6
2. Vagal stimulation in heart causes
 - a) Increase in heart rate
 - b) Increase in force of cardiac contraction
 - c) Decrease in heart rate
 - d) Increased cardiac output
3. Ovulation occurs on ----- day of menstrual cycle
 - a) 10th
 - b) 14th
 - c) 18th
 - d) 21st
4. Inulin clearance is equal to
 - a) 125 ml per min



- b) 50 ml per min
 - c) 200 ml per min
 - d) 400 ml per min
5. Peripheral chemoreceptors are stimulated by
- a) Hypoxia
 - b) Alkalosis
 - c) Hypocapnia
 - d) High perfusion pressure
6. Insulin is secreted by
- a) Alpha cells of pancreatic islets
 - b) Delta cells of pancreatic islets
 - c) Beta cells of pancreatic islets
 - d) Gamma cells pancreatic islets
7. Gastric emptying is delayed by
- a) Gastrin
 - b) Cholecystokinin
 - c) Fluidity of chyme
 - d) Carbohydrate rich diet
8. Which is the site of peripheral resistance
- a) Veins
 - b) Large arteries
 - c) Arteriole
 - d) Capillaries
9. Which of the following is feature of pulmonary circulation
- a) High pressure circulation
 - b) High resistance circulation
 - c) High capacitance circulation
 - d) All of the above
10. Which of the following is a stimulus for gastric emptying
- a) CCK
 - b) Gastrin
 - c) Gastric distension
 - d) Secretin



11. Acromegaly is due excess secretion of
- Thyroid hormone
 - Corticosteroids
 - Parathyroid hormone
 - Growth hormone
12. Frequency of BER is greatest in
- Oesophagus
 - Stomach
 - Duodenum
 - Ileum
13. Which of the following hormone is secreted by posterior pituitary
- Growth hormone
 - Thyroid hormone
 - ADH
 - Prolactin
14. Lung compliance is increased in
- Lung fibrosis
 - Collapse of lungs
 - Emphysema
 - Pleural effusion
15. Oxygen therapy is maximally useful in which of the following
- Hypoxic hypoxia
 - Histotoxic hypoxia
 - Stagnant hypoxia
 - Anemic hypoxia
16. Receptors for thyroid hormones are located in
- Cell membrane
 - Cytoplasm
 - Nucleus
 - None of the above
17. Increased oxygen delivery to tissues in response to increased CO₂ is
- Haldane effect
 - Chloride shift
 - Bohr effect
 - Hamburger effect



18. Which of the following is a feature of hypothyroidism

- a) Heat intolerance
- b) Exophthalmos
- c) Increased blood cholesterol
- d) Decreased body weight

19. Which of the following occurs at high altitude

- a) Hypoventilation
- b) Bradycardia
- c) Polycythemia
- d) All of the above

20. Normal value of end diastolic volume is

- a) 70 ml
- b) 120 ml
- c) 200 ml
- d) 20 ml





ACPM Medical College Dhule
Pre-university Examination-August 2020
Physiology Paper-I

Duration: 2hour 30 Minutes

Max. Marks: 80

1. Use blue/black ballpoint pen only.
2. Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.
3. All questions are compulsory.
4. The number to the right indicates full marks.
5. Draw diagrams wherever necessary.
6. Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame.
7. Use a common answer book for all sections.

Section B [40 Marks]

Question No. 2: Write Brief Answer of any Ten out of Eleven Questions.

[2X10=20 Marks]

1. Facilitated diffusion
2. Fick's Principle
3. Factors affecting simple diffusion
4. Timed Vital capacity
5. Histotoxic hypoxia
6. Second degree heart block
7. Poiseuille's law
8. Hazards of mismatched blood transfusion
9. Cell Mediated immunity
10. Apneustic center
11. Acute Mountain sickness

Question No. 3: Write short Answer of any eight out of nine Questions. [5X8=40 Marks]

1. Determinants of GFR
2. Gastric Juice Composition & Function
3. Hearing Breuer reflex
4. Pressure Volume changes during respiration
5. Quality of professional Physician
6. Short term Mechanism of Blood Pressure
7. Determinants of cardiac output
8. Platelet plug formation mechanisms
9. Mechanism of mass peristalsis

Question No. 4: Write Long Answer of any two out of three Questions. [2X10=20 Marks]

1. Classify Anemia. Describe pathophysiology of each type of anemia. Write a note on basis of treatment.
2. Describe renal handling of glomerular filtrate by different parts of cortical nephron. Explain the mechanisms responsible for dilute urine formation.
3. List the Respiratory centers. Describe neural and chemical regulation of respiration. Write a note on regulation of respiration during exercise.



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A.C.P.M. Medical College, Dhule

Department of Physiology

Preliminary examination, Paper - II

Ist MBBS Regular batch 2019 - 20

Date: 28/7/2020

Time: 10 am to 1 pm

Total Marks: 50

Instructions:

1. Use blue/black ball point pen only.
2. Do not write anything on blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort unfair means.
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7. Use a common answer book for all sections.

Section – A

(10 marks)

1. Cell motility is due to protein
 - a) Motilin
 - b) Tactilin
 - c) Tubulin
 - d) Laminin
2. Which of the following is used in exocytosis
 - a) Na ions
 - b) Magnesium ions
 - c) Calcium ions
 - d) Potassium ions
3. Hemophilia is due to deficiency of factor
 - a) 8
 - b) 11
 - c) 2
 - d) 5
4. Na-K-2Cl transporter pumps are present over
 - a) Thin ascending limb of loop of Henle



- b) Thick ascending limb of loop of Henle
 - c) PCT
 - d) Late DCT
5. Apoptosis is a process of
- a) Cell suicide
 - b) Programmed cell death
 - c) Inflammation
 - d) Autoimmune disease
6. Which of the following is not a function of hemoglobin
- a) Transport of oxygen
 - b) Transport of CO₂
 - c) Acts as a buffer
 - d) Channel protein
7. Decrease in RBC count is known as
- a) Anemia
 - b) Polycythemia
 - c) Leucocytosis
 - d) Leucopenia
8. Protanopes have defect in identifying which color
- a) Blue
 - b) Green
 - c) Red
 - d) All of the above
9. Transducin is required for
- a) Smell
 - b) Taste
 - c) Hearing
 - d) Vision
10. Olfactory receptors are
- a) Modified epithelial cells
 - b) Multipolar neurons
 - c) Pseudounipolar neurons
 - d) Bipolar neurons



11. Emotional response to a physical stimulus is given by
- Cortex
 - Cerebellum
 - Hippocampus
 - Amygdaloid
12. In vitro coagulation is initiated by factor
- 12
 - 11
 - 10
 - 7
13. Purkinje fibers are inhibitory for
- Climbing fibers
 - Basket cells
 - Spinocerebellar tracts
 - Deep cerebellar nuclei
14. Skilled voluntary movements are initiated at
- Basal ganglia
 - Cerebellum
 - Cortical association areas
 - Cerebral cortex
15. Which of the following sensation is carried by posterior columns
- Fine touch
 - Temperature
 - Pain
 - All of the above
16. Angiotensin causes all of the following above except
- Thirst stimulation
 - Aldosterone secretion
 - Vasodilation
 - Increased ADH secretion
17. Minimum urine osmolarity that can be achieved by human kidney is
- 100 mOsm per lit
 - 50 mOsm per lit
 - 80 mOsm per lit
 - 20 mOsm per lit



18. At resting state, cell membrane is maximally permeable for
- a) Na ions
 - b) Chloride ions
 - c) Potassium ions
 - d) Bicarbonate ions
19. Which of the following body parts is represented most laterally & inferiorly in primary motor cortex
- A) Face
 - B) Neck
 - C) Hand
 - D) Abdomen
20. Inhibitory neurotransmitter in CNS is
- a) Aspartate
 - b) Glutamate
 - c) GABA
 - d) Acetyl choline



Date: -28/7/2020

ACPM Medical College Dhule
Pre-university Examination-July 2020
Paper-II

Max. Marks: 80

Duration: 2hour 30 Minutes

1. Use blue/black ballpoint pen only. ☐
2. Do not write anything on the blank portion of the question paper. If written anything, such type of ☐ act will be considered as an attempt to resort to unfair means. ☐
3. All questions are compulsory. ☐
4. The number to the right indicates full marks. ☐
5. Draw diagrams wherever necessary. ☐
6. Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the ☐ stipulated frame. ☐
7. Use a common answer book for all sections. ☐

Section B[40 Marks]

Question No. 2: Write Brief Answer of any ten out of Eleven Questions.

[2X10=20 Marks]

1. Mechanism of action of steroid hormone
2. Iodine trapping
3. Spinal regulation of muscle tone
4. Features of Cretinism
5. Endocholear potential
6. Heat loss mechanisms
7. Function of different Nuclei of limbic system
8. Cerebellar ataxia
9. Amnesia
10. Function of sertoli cells
11. Astigmatism

Question No. 3: Write short Answer of any eight out of nine Questions.

[5X8=40 Marks]

1. Visual Pathway
2. Cerebral Circulation
3. Vestibulo-ocular reflex
4. Functions of glucagon
5. Functions of Thoraco-lumber outflow
6. Test for deafness
7. Classification and mechanism of speech
8. Functions of Progesterone
9. Physiological changes in Cushing disease



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Department of Physiology,
A.C.P.M. Medical College, Dhule

Question No. 4: Write Long Answer of any two out of three Questions. [2X10=20 Marks]

1. List the cortico-spinal pathways. Describe origin, course, function, and termination of each pathway. Write a note of difference between upper motoneuron lesion and lower motoneuron lesion.
2. Describe hormonal changes during pregnancy and explain the maternal adaptation during pregnancy. Write a note on amenorrhea.
3. Describe Molecular basis of skeletal muscle contraction. Add a note on energetics of muscle contraction.



Professor & Head,
Department of Physiology,
A.C.P.M. Medical College, Dhule (M.S.)



Preliminary Practical exam MBBS 2019-2020

Time: 9.30 am – 12.30 pm

Total Marks: 80

Instructions

1. All questions are compulsory.
2. Write your Roll No. on each page.
3. Give numbering to all pages.
4. Submit the soft copy before 3pm on the same day.
5. Follow the sequence of questions while answering.
6. Write question and sub question number correctly.
7. Save your file as PU-P [Roll No] and send it to physioacpm@gmail.com
8. Submit the hard copy in department after you join the college.

Exercise No. 1- Clinical Examination [10X4=40 Marks]

Q. No. 1

A 36-year-old male computer programmer works for IT company since last one year and has just been promoted as Managing Director to take over the corporate company. He experiences symptoms of palpitations, and frequent cardiac discomfort, particularly at night. The plasma catecholamine levels were reported as increased. Prepare a checklist of procedure for clinical examination of this patient. Distribute mark out of 10 to each step, based on importance of critical information.

Q. No. 2

Prepare a checklist of procedure for clinical examination of abdomen in a female subject. Distribute mark out of 10 to each step, based on importance of critical information.

Q. No. 3

A 56-year-old male has been admitted in emergency ward with loss of pain, fine touch, vibration and taste sensations. Prepare a checklist of procedure for clinical examination of this patient. Distribute mark out of 10 to each step, based on importance of critical information.

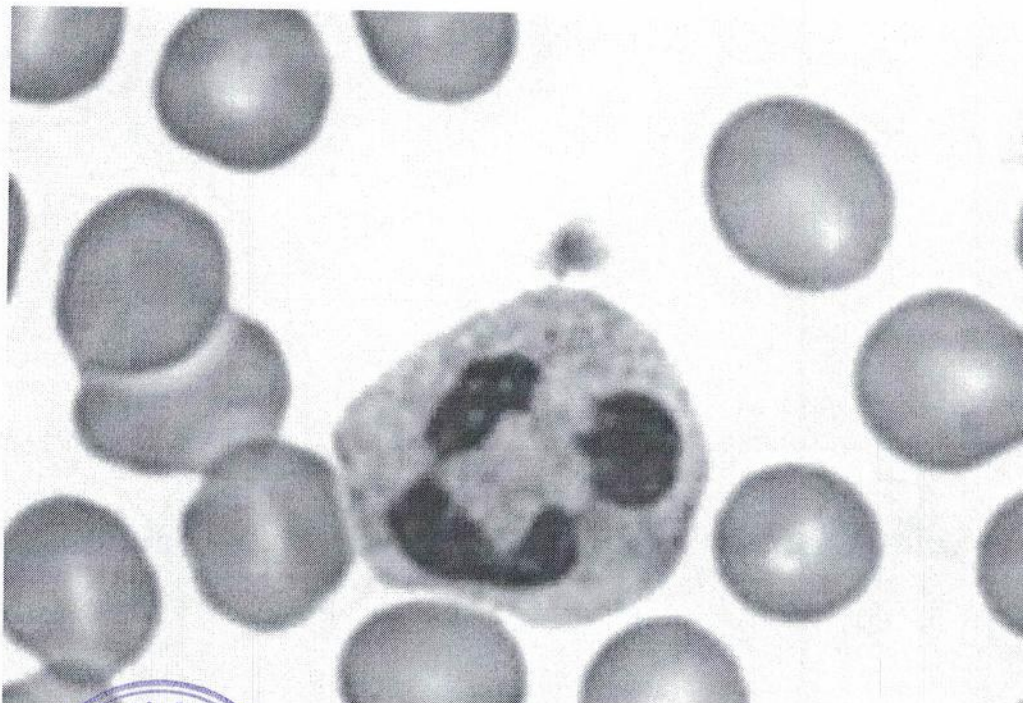


Q. No. 4

A 34- year- old male presented with difficulty in breathing since few weeks. History reveals that he was chronic smoker & alcoholic for the past 20 years. Blood reports indicate poor liver function test and anemia. What would be the findings of general & systemic clinical examination of this patient?

Exercise No. 2- Hematology [10 Marks]

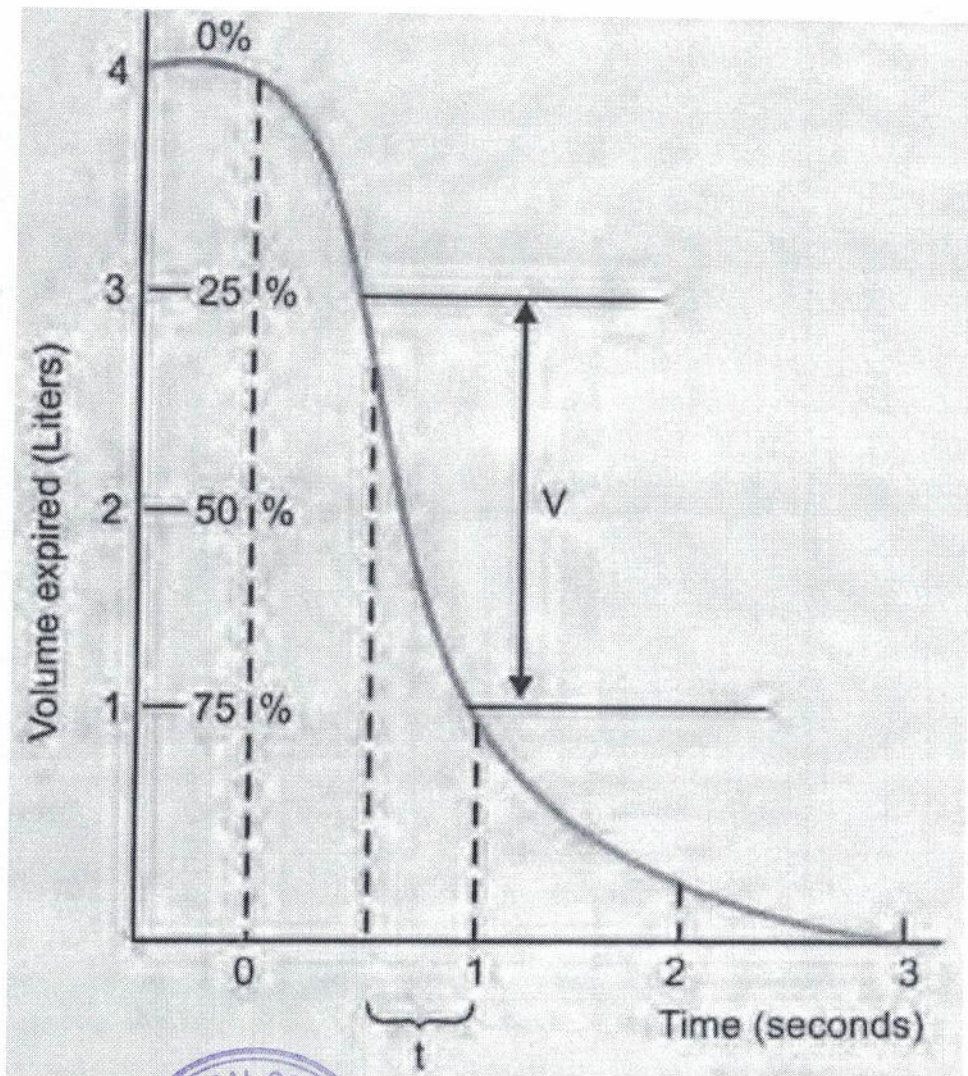
1. Identify the type of WBC seen in the blood smear
2. List the steps of procedure for preparation of blood smear.
3. What is composition of fluid used for this preparation?
4. What are the precautions to be undertaken while performing this procedure?
5. How long this cell remains in circulation and in tissue and its major function. It is motile?



[Signature]
Professor & Head,
Department of Physiology
A.C.P.M. Medical College, Dhule [M]

Exercise No. 3- Human Physiology Experiment [15 Marks]

- Identify and define the given graph.
- Lists the steps of procedure to perform this measurement
- Lists the precautions to be observed while undertaking this measurement.
- What are normal values of this measurement?
- What is clinical significance of this measurement?



Signature

Exercise No. 4- short exercises [3X5=15 Marks]

Q. No. 1: Calculate the velocity of nerve impulse in the frog's nerve-muscle preparation from the data given below.

- Latent period with stimulation of spinal end of the nerve = 0.02 seconds
- Latent period with stimulation of muscle end of the nerve = 0.005 seconds
- Length of the nerve between the two stimulated points = 7.5 cm

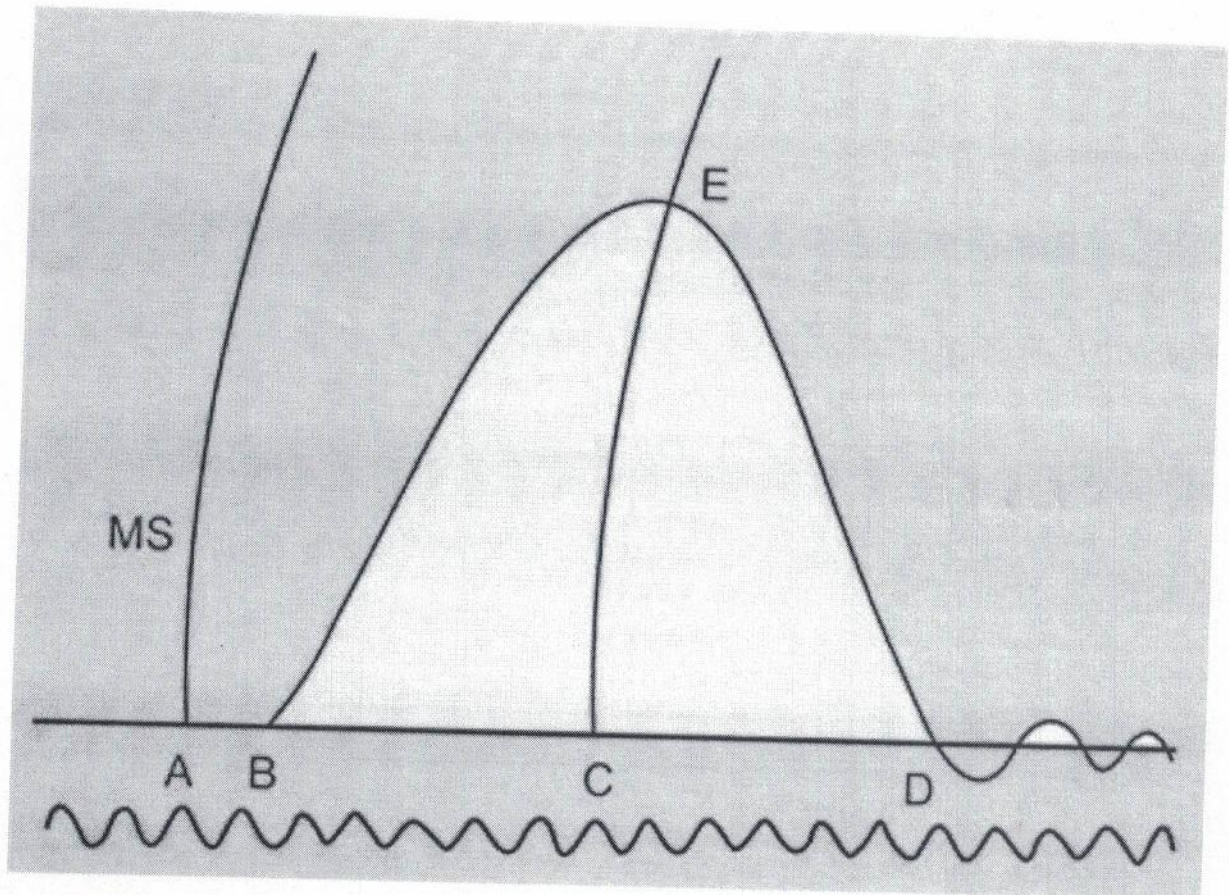
Q. No. 2: If T_{mG} is 320 mg/min, why does glucose appear in the urine when the plasma glucose level is 180 mg %, at which the tubular load is 225 mg/minute?



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Q. No. 3:

1. Identify the given graph and label.
2. Calculate latent period, contraction period and relaxation period



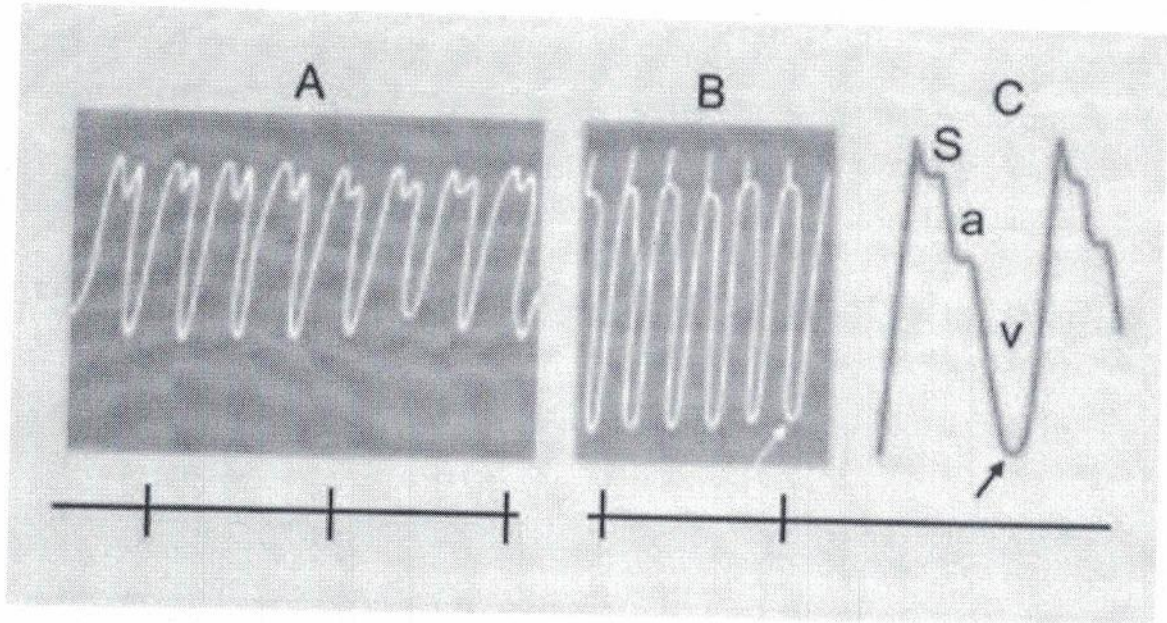
Signature

Professor & Head,
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A.C.P.M. Medical College, Dhule, [M.S.]

Preliminary Practical exam MBBS 2019-2020

Q. No. 4:

1. Identify the given graph and label A, C and C. also label "s, a, v"
2. Why is frog's heart used for the study of properties of heart?

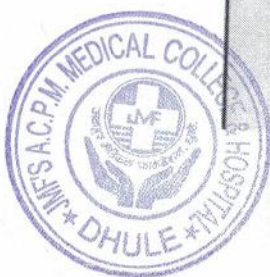
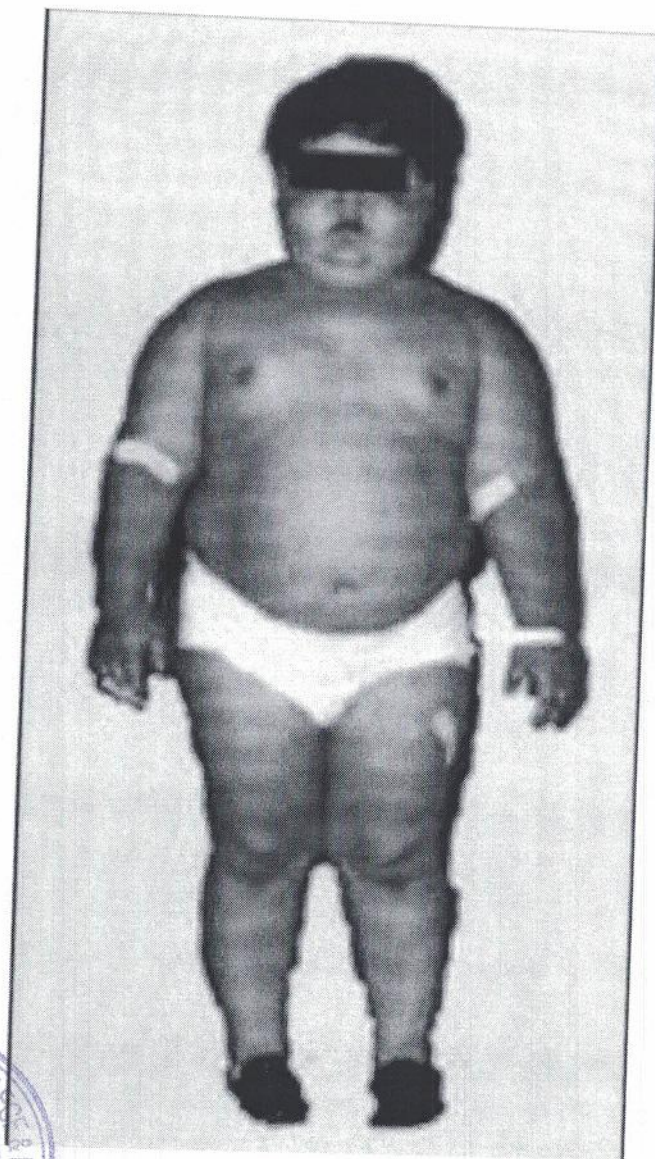


Dr. H. W. S.

Professor & Head,
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Preliminary Practical exam MBBS 2019-2020

Q. No. 5: Identify the given endocrine disorder and mention morphological features of this disorder



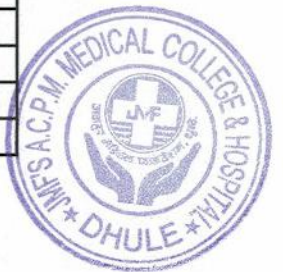
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Professor & Head,
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A.C.P.M. Medical College

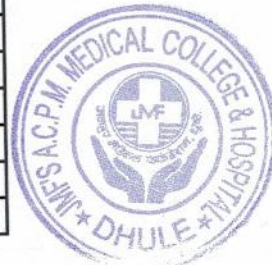
Dept of Physiology
ACPM Medical College, Dhule
Internal Assisment Batch 2019-2020

Dt: 16/8/2020

Roll No.	Name of the Students	Theory						Practical						Total
		I Int(100)	II Int(100)	P.U.(200)	Total(400)	IA(40)	IA(40)	I Int(50)	II Int(50)	P.U.(100)	Total(200)	IA(40)	IA(40)	IA(80)
1	Adi Bin Mohammed	38	67.5	79	184.5	18.45	18	29	30	53	112	22.4	22	40
2	Ambekar Akshata Manohar	57	61	111.5	229.5	22.95	23	40	35	64	139	27.8	28	51
3	Archana Addagatla	58	67	100	225	22.5	23	38	37	78	153	30.6	31	54
4	Aware Prathemesh Kailas	62	62	124.5	248.5	24.85	25	41	36	66	143	28.6	29	54
5	Ayushi Gumanmal Jain	44	66.5	120	230.5	23.05	23	39	35	59	133	26.6	27	50
6	Badole Neha Anandrao	47	61	112	220	22	22	34	33	78	145	29	29	51
7	Bagga Dishneet Kaur B.S.	43	63	131.5	237.5	23.75	24	39	37	82	158	31.6	32	56
8	Bahiram Hitesh Shivaji	28	53	91	172	17.2	17	34	35	64	133	26.6	27	44
9	Bangadkar Nikhil Tikaram	59	59.5	95	213.5	21.35	21	39	38	83	160	32	32	53
10	Baraskar Rohit Dilip	33	52	101	186	18.6	19	31	34	65	130	26	26	45
11	Bera Saurabh Ambavi	46	57.5	131	234.5	23.45	23	38	33	87	158	31.6	32	55
12	Bhosale Rutuja Maharudra	59	65	108.5	232.5	23.25	23	39	31	82	152	30.4	30	53
13	Bhosale Sangram Deepakrao	37	57.5	117	211.5	21.15	21	30	34	65	129	25.8	26	47
14	Chahat Singh Pambar	60	57.5	113	230.5	23.05	23	31	38	88	157	31.4	31	54
15	Chavan Nikhil Jagadeo	29	46.5	90	165.5	16.55	17	24	33	59	116	23.2	23	40
16	Chirde Ankita Ramesh	35	50.5	103.5	189	18.9	19	36	31	72	139	27.8	28	47
17	Chopade Rushikesh Giridhar	33	55	98	186	18.6	19	34	35	81	150	30	30	49
18	Choudhary Najmussehar . A.	49	58.5	111	218.5	21.85	22	35	34	72	141	28.2	28	50
19	Dcruz Sneh Reynold	55	50.5	116	221.5	22.15	22	40	32	68	140	28	28	50
20	Deore Yesh Devendra	23	53.5	107	183.5	18.35	18	27	31	70	128	25.6	26	44
21	Desale Sakshi Sharad	52	56.5	90.5	199	19.9	20	37	34	72	143	28.6	29	49
22	Deshmukh Payal Satish	33	57	102	192	19.2	19	36	34	65	135	27	27	46
23	Doshi Yash Sandeep	28	52.5	78.5	159	15.9	16	29	32	63	124	24.8	25	41
24	Gaikwad Sayali Raju	34	47.5	99.5	181	18.1	18	36	27	67	130	26	26	44
25	Gajakos Shivraj Prakash	10	43.5	107.5	161	16.1	16	27	33	64	124	24.8	25	41
26	Galande Vaishnavi Muralidhar	62	52	123	237	23.7	24	36	31	78	145	29	29	53
27	Garde Rohit Arun	34	53.5	100.5	188	18.8	19	32	36	65	133	26.6	27	46
28	Gawali Navanath Vishvanath	30	53	102	185	18.5	19	31	35	64	130	26	26	45



29	Gawhankar Bhargavi Santosh	50	52	105	207	20.7	21	36	37	65	138	27.6	28	49
30	Girase Anushka Jaideepsingh	58	50.5	126.5	235	23.5	24	37	37	70	144	28.8	29	53
31	Gulamijani Shaikh	50	55.5	118	223.5	22.35	22	33	31	67	131	26.2	26	48
32	Gundu Mahesh Gunashali	34	57.5	123	214.5	21.45	21	39	38	75	152	30.4	30	51
33	Hrishikesh Sunil Kumawat	22	50	96	168	16.8	17	29	35	62	126	25.2	25	42
34	Jadhav Mayur Baliram	31	56	103	190	19	19	27	36	68	131	26.2	26	45
35	Jadhav Pratik Ram	24	50.5	93.5	168	16.8	17	28	36	70	134	26.8	27	44
36	Jain Disha Suresh	57	56.5	105.5	219	21.9	22	41	36	73	150	30	30	52
37	Jain Sanyam Vinay	38	57	74.5	169.5	16.95	17	33	36	68	137	27.4	27	44
38	Jambkar Simuk Ganpatrao	26	54.5	102	182.5	18.25	18	25	33	66	124	24.8	25	43
39	Joshi Anant Nitin	40	52	101.5	193.5	19.35	19	33	38	67	138	27.6	28	47
40	Kamble Sagar Balu	54	56	109.5	219.5	21.95	22	31	38	65	134	26.8	27	49
41	Karhale Deepak Pramodrao	33	55.5	105.5	194	19.4	19	30	33	68	131	26.2	26	45
42	Khan Mohd Afzal Zulfiqar	10	50	113.5	173.5	17.35	17	25	35	68	128	25.6	26	43
43	Kharat Shubham Chandrakant	9	28	85	122	12.2	12	23	32	65	120	24	24	36
44	Kharsade Prajwal Angad	42	58	95	195	19.5	20	34	34	66	134	26.8	27	47
45	Kothawade Manali Bhalchandra	25	53	108	186	18.6	19	36	31	67	134	26.8	27	46
46	Kulkarni Darpan Sudhir	38	50	116.5	204.5	20.45	20	38	34	68	140	28	28	48
47	Mahesh Ramesh Khedkar	54	50	101.5	205.5	20.55	21	39	35	71	145	29	29	50
48	Maity Tamal Tapas	40	54	100	194	19.4	19	36	36	71	143	28.6	29	48
49	Makade Mansi Pravin	28	58	115.5	201.5	20.15	20	35	35	71	141	28.2	28	48
50	Malekar Sanket Dadasaheb	24	52	100	176	17.6	18	31	34	68	133	26.6	27	45
51	Mapari Rameshwar Subhash	12	54.5	91	157.5	15.75	16	26	33	60	119	23.8	24	40
52	Maske Mohit Suresh	16	58.5	83	157.5	15.75	16	31	23	65	119	23.8	24	40
53	Mishra Neha Hemant	51	56.5	89.5	197	19.7	20	35	32	73	140	28	28	48
54	More Gayatri Digambar	24	50	104.5	178.5	17.85	18	20	32	74	126	25.2	25	43
55	Nikam Shubham Bhausaheb	59	54	94.5	207.5	20.75	21	39	37	72	148	29.6	30	51
56	Pandey Rishab Gopal	60	52.5	103.5	216	21.6	22	39	37	69	145	29	29	51
57	Paramender Kumar	52	58	119.5	229.5	22.95	23	36	37	71	144	28.8	29	52
58	Parchande Adnyesh M.	50	55	101.5	206.5	20.65	21	38	32	65	135	27	27	48
59	Patil Abhishek Anil	24	50	87	161	16.1	16	24	35	70	129	25.8	26	42
60	Patil Harshwardhan Abhay	35	50	125	210	21	21	30	37	69	136	27.2	27	48
61	Patil Heramb Bharat	33	51.5	121	205.5	20.55	21	29	30	66	125	25	25	46
62	Patil Kaushal Kundan	22	53.5	101	176.5	17.65	18	32	34	64	130	26	26	44



63	Patil Rudraa Shailendra	41	60	114.5	215.5	21.55	22	37	36	74	147	29.4	29	51
64	Patil Saloni Hansraj	52	55.5	122	229.5	22.95	23	36	34	77	147	29.4	29	52
65	Patil Shubhankar Bajirao	26	50	88	164	16.4	16	25	35	67	127	25.4	25	41
66	Patil Shweta Ashok	60	53	107	220	22	22	40	37	79	156	31.2	31	53
67	Pipaliya Dhruv Jayendrabhai	28	50	123.5	201.5	20.15	20	36	36	74	146	29.2	29	49
68	Pote Yogesh Sadashiv	31	50	85.5	166.5	16.65	17	31	30	66	127	25.4	25	42
69	Rasal Mansi Mahesh	50	64.5	117	231.5	23.15	23	37	35	78	150	30	30	53
70	Rasal Parag Govindrao	28	55	96.5	179.5	17.95	18	28	34	70	132	26.4	26	44
71	Sahota Harpreetkaur P.	67	53.5	115.5	236	23.6	24	40	34	78	152	30.4	30	54
72	Sakhare Tanvi Nagesh	34	55	122	211	21.1	21	35	36	72	143	28.6	29	50
73	Salunkhe Kedar Kiran	29	50	115.5	194.5	19.45	19	34	37	65	136	27.2	27	46
74	Sanjivan Avinash Jagdale	65	52	89.5	206.5	20.65	21	40	36	67	143	28.6	29	50
75	Satpute Praful Raghunath	45	31	94	170	17	17	32	26	67	125	25	25	42
76	Sawale Samir Vijay	44	55.5	121	220.5	22.05	22	30	34	66	130	26	26	48
77	Sawant Sharvari Santosh	30	50	101	181	18.1	18	29	36	72	137	27.4	27	45
78	Sayyed Mustaqueem Karim	38	53	113.5	204.5	20.45	20	25	34	72	131	26.2	26	46
79	Shah Jash Nipul	43	51	130.5	224.5	22.45	22	41	35	66	142	28.4	28	50
80	Shaikh Noman Ashfaq	45	50	112	207	20.7	21	38	29	61	128	25.6	26	47
81	Shelke Vaishnavi Gajanan	39	51	108.5	198.5	19.85	20	33	34	68	135	27	27	47
82	Sherkhane Dilipkumar Devidas	29	54	101	184	18.4	18	23	37	65	125	25	25	43
83	Shimpi Samruddhi Vijay	53	58.5	108	219.5	21.95	22	32	36	69	137	27.4	27	49
84	Shingne Akshay Rameshwar	31	42	100.5	173.5	17.35	17	31	32	62	125	25	25	42
85	Shinjini Patra	40	56.5	121	217.5	21.75	22	40	39	74	153	30.6	31	53
86	Shreia s Swarup	52	51.5	116.5	220	22	22	40	35	72	147	29.4	29	51
87	Singh Robin Ajit	53	50.5	124.5	228	22.8	23	39	33	69	141	28.2	28	51
88	Snehal Verma	53	53.5	127	233.5	23.35	23	39	37	74	150	30	30	53
89	Sonar Shubham Pradeep	32	56	126.5	214.5	21.45	21	32	37	62	131	26.2	26	47
90	Sonawane Vaishnavi Uddhav	28	51	78.5	157.5	15.75	16	31	37	64	132	26.4	26	42
91	Sudhanshu Sanjay Patil	42	57	126.5	225.5	22.55	23	38	33	71	142	28.4	28	51
92	Thanvi Ayushi Jaiprakash	45	41.5	110.5	197	19.7	20	38	35	65	138	27.6	28	48
93	Tiwari Abhay Vinod	59	55	89.5	203.5	20.35	20	40	36	71	147	29.4	29	49
94	Valvi Alpesha Daulat	32	54.5	102.5	189	18.9	19	36	34	73	143	28.6	29	48
95	Vidya Sagar Prammatmaprasad	47	57	112	216	21.6	22	38	37	69	144	28.8	29	51
96	Vinu K Saji	37	52.5	91	180.5	18.05	18	33	36	66	135	27	27	45



97	Wankhade Ashwini Pralhad	39	56.5	118	213.5	21.35	21	38	37	71	146	29.2	29	50
98	Wasekar Poonam Gajanan	53	56	88.5	197.5	19.75	20	29	33	72	134	26.8	27	47
99	Watthi Nainshree Ramesh	28	57	101	186	18.6	19	8	31	69	108	21.6	22	41
100	Zare Sandeep Vasantrao	26	53	81	160	16	16	26	33	62	121	24.2	24	40



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Maharashtra University of Health Sciences, Nashik
A.C.P.M. Medical College, Dhule
Department of Physiology
Terminal examination
Ist MBBS Regular batch 2016 – 17

January 2017

Total Mark: 60

Time: 10 am to 1 pm

Instructions:

1. Use blue/black ball point pen only.
2. Do not write anything on blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort unfair means.
3. All questions are compulsory.
4. The number to the right indicates full marks.
5. Draw diagrams wherever necessary.
6. Distribution of syllabus in question paper is only meant to cover the entire syllabus within the stipulated frame. The question paper pattern is a mere guideline. Questions can be asked from any paper syllabus into any question paper. Students cannot claim that the question is out of syllabus. As it is only for the placement sake, the distribution has been done.
7. Use a common answer book for all sections.

Section-A

Q. 1 MCQs

1. Spirometry can measure all except
 - a) Tidal volume
 - b) Residual volume
 - c) Vital capacity
 - d) Inspiratory reserve volume
2. Oxygen dissociation curve shifts to right in all except
 - a) High altitude
 - b) Diabetic ketoacidosis
 - c) Anemia
 - d) Blood transfusion
3. Lack of vitamin K causes deficiency of all except
 - a) Prothrombin
 - b) Fibrinogen
 - c) Factor VII
 - d) Factor x



4. Commonly seen earliest sign of blood transfusion reaction is
- Jaundice
 - Haemoglobinuria
 - Violent pain in back or elsewhere
 - Skin rash
5. Diffusing capacity for CO₂ compared to that of O₂ is
- 20 times
 - 10 times
 - 5 times
 - 2times
6. Eosinophillia is seen in
- Bronchial asthma
 - Worm infestation
 - Cushing syndrome
 - Urticaria
7. Iron deficiency anaemia is
- Normocytic normochromic
 - Normocytic hypochromic
 - Macrocytic hypochromic
 - Microcytic hypochromic
8. Hypoxia causes vasoconstriction in
- Muscle
 - Lungs
 - Liver
 - Spleen
9. CO₂ affects respiratory centre via
- Carotid body
 - Aortic body
 - CSF H⁺ concentration
 - Inflation and deflation receptors
10. Normal osmolality of body fluid is
- 80 mosmol/L
 - 250 mosmol/L
 - 300 mosmol/L
 - 350 mosmol/L



11. Which of the following decreases in length during contraction of skeletal muscle fiber
- a) Thin filament
 - b) Thick filament
 - c) A-band
 - d) I-band
12. Optimal pH range of blood at which human body function properly is
- a) 8-8.5
 - b) 7.35-7.40
 - c) 6.4-6.45
 - d) 9-9.5
13. First site (seat) of fatigue in intact body is
- a) Cerebral cortex
 - b) Motor neuron in spinal cord
 - c) N-M junction
 - d) Muscle
14. Resting membrane potential in skeletal muscle is
- a) -70mv
 - b) -80mv
 - c) -90mv
 - d) -100mv
15. Following are the properties of skeletal muscle except
- a) Excitability
 - b) Contractility
 - c) Conductivity
 - d) Autorhythmicity
16. Duration of Ventricular systole is
- a) 0.3sec
 - b) 0.4sec
 - c) 0.5sec
 - d) 0.8sec
17. Overt tetany treated by
- a) Oral calcium tablets
 - b) Vitamin D
 - c) High calcium diet
 - d) Injections of calcium gluconate



18. In a resting adult, the typical ventricular ejection fraction has what value
- a) 30%
 - b) 40%
 - c) 50%
 - d) 60%
19. Growth hormone levels are increased by
- a) Fasting
 - b) Alcohol
 - c) REM sleep
 - d) Carbohydrate diet
20. Thyroid hormone mainly effective at tissue level is
- a) T₄
 - b) T₃
 - c) Both equally
 - d) None of these
21. Steroid hormones are secreted by all except
- a) Ovary
 - b) Testes
 - c) Adrenal medulla
 - d) Placenta
22. Which of the following is not recorded in ECG
- a) Atrial depolarization
 - b) Atrial repolarization
 - c) Ventricular depolarization
 - d) Ventricular repolarization
23. The cause of second heart sound is
- a) Closure of A-v valve
 - b) Closure of semilunar valve
 - c) Last rapid filling phase of ventricular diastole
 - d) First rapid filling phase of ventricular diastole
24. Which of following has maximum conduction velocity
- a) S.A.node
 - b) A.V.node
 - c) Bundle of his
 - d) Purkinje fiber



Maharashtra University of Health Sciences, Nashik

A.C.P.M. Medical College, Dhule

Department of Physiology

Terminal examination

1st MBBS Regular batch 2016 – 17

January 2017

Time: 10 am to 1 pm

Total Marks: 60

Instructions:

1. Use blue/black ball point pen only.
2. Do not write anything on blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort unfair means.
3. All questions are compulsory.
4. The number to the right indicates full marks.
5. Draw diagrams wherever necessary.
6. Distribution of syllabus in question paper is only meant to cover the entire syllabus within the stipulated frame. The question paper pattern is a mere guideline. Questions can be asked from any paper syllabus into any question paper. Students cannot claim that the question is out of syllabus. As it is only for the placement sake, the distribution has been done.
7. Use a common answer book for all sections.

Section – B

(24 marks)

(SAQ)

(6 x 4 = 24)

2. Short answer questions (any six out of seven):

- a) What is Myasthenia gravis. Add a note on physiological basis of its treatment.
- b) Define & classify immunity. Add a note on cell mediated immunity.
- c) Draw a well labeled diagram of ECG in lead II. Add a note on 1st degree heart block.
- d) Mention etiology & clinical features of acromegaly.
- e) Define and classify hypoxia. Add a note on hypoxic hypoxia.
- f) Enumerate various transport mechanisms acting across cell membrane. Add a note on Na-K ATPase pump.
- g) Define action potential. Describe phases of nerve action potential with a well labeled diagram.

Section – C

(24 marks)

(LAQ)

(3 x 8 = 24)

3. Long answer questions (any three out of four):

- a) Explain neural regulation of respiration. Add a note on Ondyne's curse.
- b) Describe the steps in synthesis of thyroid hormones. Describe actions of thyroid hormones.
- c) Define cardiac cycle. Explain atrial & ventricular events during cardiac cycle.
- d) Describe extrinsic mechanism of blood coagulation. Add a note on hemophilia.



Maharashtra University of Health Sciences, Nashik

A.C.P.M. Medical College, Dhule

Department of Physiology

Preliminary examination, Paper-I

Ist MBBS Regular batch 2016 – 17

April 2017

Total Marks : 50

Time: 10 am to 1 pm

Instructions:

1. Use blue/black ball point pen only.
2. Do not write anything on blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort unfair means.
3. All questions are compulsory.
4. The number to the right indicates full marks.
5. Draw diagrams wherever necessary.
6. Distribution of syllabus in question paper is only meant to cover the entire syllabus within the stipulated frame. The question paper pattern is a mere guideline. Questions can be asked from any paper syllabus into any question paper. Students cannot claim that the question is out of syllabus. As it is only for the placement sake, the distribution has been done.
7. Use a common answer book for all sections.

Section-A

Q. 1 MCQs

1. Factors that decreases filtration through capillary membrane is
 - a) Increased capillary hydrostatic pressure
 - b) Decreased interstitial hydrostatic pressure
 - c) Increased colloidal osmotic pressure
 - d) Incresed interstitial colloidal osmotic pressure
2. Closure of semilunar valves occurs during
 - a) Isovolumetric contraction phase
 - b) Rapid ejection phase
 - c) Isovolumetric ventricular relaxation phase
 - d) Protodiastole
3. Normal alveolaqr ventilationin ml/min is
 - a) 1100
 - b) 2300
 - c) 4200
 - d) 6000



4. Gastric emptying delayed by
 - a) Carbohydrate rich diet
 - b) Cholecystokinin
 - c) Gastrin
 - d) Fluidity of chyme
5. All of the following stimulate peripheral chemoreceptors EXCEPT
 - a) Hypoxia
 - b) Acidosis
 - c) Hypocapnoea
 - d) Low perfusion pressure
6. Immunological test for early detection of pregnancy depends on the presence of which of the following hormones
 - a) HCG
 - b) Progesterone
 - c) LH
 - d) Human chorionic somatomammotrophins
7. Which of the following stimulate insulin secretion from B-cells of langerhans?
 - a) Increase in free fatty acid in blood
 - b) Fasting
 - c) Somatostatin
 - d) α -adrenergic stimulation
8. Hyper pigmentation is a sign of
 - a) Cushing syndrome
 - b) Addison's disease
 - c) Myxoedema
 - d) Acromegaly
9. Oxytocin is necessary for
 - a) Development of ducts in mammary glands
 - b) Let down of milk
 - c) Formation of alveoli in mammary glands
 - d) Secretion of milk



10. When mean arterial pressure falls below 15 to 20 mm of hg, which one of the following is strongly stimulated?
- a) Sinoaortic reflex
 - b) Low pressure receptors
 - c) Chemoreceptor reflex
 - d) CNS ischemic response
11. If ventilation perfusion ratio equals to infinity the partial pressure of O₂ in alveolar air in mm of Hg will be
- a) 149
 - b) 104
 - c) 90
 - d) 40
12. Frequency of Basal Electric Rhythm (BER) is maximum in
- a) Duodenum
 - b) Stomach
 - c) Oesophagus
 - d) Ileum
13. Which of the following is NOT the feature of defecation reflex
- a) It is initiated by distention of rectum
 - b) It is controlled by spinal defecation reflex
 - c) It can be initiated voluntarily
 - d) It becomes stronger on sympathetic stimulation
14. Turner's syndrome is characterised by chromosomal pattern of
- a) XO
 - b) XXX
 - c) XXY
 - d) YO
15. Heat loss centre is situated in
- a) Ventromedian nucleus of hypothalamus
 - b) Posterior hypothalamus
 - c) Pre-optic area of hypothalamus
 - d) Lateral hypothalamus



16. In all of the following condition compliance of lungs is decreased EXCEPT
- a) Atelectasis
 - b) Fibrosis of lungs
 - c) Kyphosis
 - d) Emphysema
17. Which of the following is NOT a characteristic feature of hyperthyroidism
- a) Intolerance of heat
 - b) Decreased body weight
 - c) Exophthalmos
 - d) Increased cholesterol
18. Abrupt increase in ventilation at the onset of exercise is due to stimulation of respiratory centres by
- a) Hypercapnoea
 - b) Hypoxia
 - c) Muscle and joint proprioceptors
 - d) Rise in blood lactic acid level
19. Increase in heart rate with right atrial stretching is
- a) Bainbridge reflex
 - b) Bezold Jarisch reflex
 - c) Marey's reflex
 - d) Sinus arrhythmia
20. All of the following are characteristics of acclimatization to high altitude
- a) Polycythemia
 - b) Shifting of O₂Hb dissociation curve to left
 - c) Hyperventilation
 - d) Excretion of alkaline urine



Maharashtra University of Health Sciences, Nashik

A.C.P.M. Medical College, Dhule

Department of Physiology

Preliminary examination, Paper - I

1st MBBS Regular batch 2016 – 17

April 2017

Time: 10 am to 1 pm

Total Marks: 50

Instructions:

1. Use blue/black ball point pen only.
2. Do not write anything on blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort unfair means.
3. All questions are compulsory.
4. The number to the right indicates full marks.
5. Draw diagrams wherever necessary.
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7. Use a common answer book for all sections.

Section – B

(24 marks)

Q 2. Short answer questions (any six out of seven):

(6 x 4 = 24)

- a) Describe various phases of menstrual cycle.
- b) Explain the pharyngeal phase of deglutition.
- c) Describe the stages of spermatogenesis & factors affecting it.
- d) Describe clinical features & treatment for myxedema.
- e) Describe peculiarities of pulmonary circulation.
- f) Explain the factors affecting peripheral resistance.
- g) Write composition and functions of pancreatic juice.

Section C

Q 3. Long answer question (any two out of three):

(2 x 8 = 16)

- a) Enumerate hormones secreted by anterior pituitary. Describe the physiological actions of growth hormone.
- b) Describe the origin & spread of cardiac impulse. Add a note on conduction block.
- c) Draw a well labeled diagram of respiratory membrane. Explain different factors affecting diffusion of gases across respiratory membrane.



Maharashtra University of Health Sciences, Nashik

A.C.P.M. Medical College, Dhule

Department of Physiology

Preliminary examination, Paper - II

Ist MBBS Regular batch 2016 – 17

April 2017

Time: 10 am to 1 pm

Total Marks: 50

Instructions:

1. Use blue/black ball point pen only.
2. Do not write anything on blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort unfair means.
3. All questions are compulsory.
4. The number to the right indicates full marks.
5. Draw diagrams wherever necessary.
6. Distribution of syllabus in question paper is only meant to cover the entire syllabus within the stipulated frame. The question paper pattern is a mere guideline. Questions can be asked from any paper syllabus into any question paper. Students cannot claim that the question is out of syllabus. As it is only for the placement sake, the distribution has been done.
7. Use a common answer book for all sections.

Section – A

(10 marks)

Q. 1 MCQs

- 1) Active transport is transport against
 - a) Concentration gradient
 - b) Electrical gradient
 - c) Pressure gradient
 - d) All of the above
- 2) Apoptosis is a process of
 - a) Programmed cell death
 - b) Cell suicide
 - c) Autoimmune disease
 - d) Embryonic development
- 3) Organ of corti is located on
 - a) Tectorial membrane
 - b) Basilar membrane
 - c) Reissner's membrane
 - d) Reticular lamina



- 4) Stimulus for photoreceptors is
- a) Mechanical
 - b) Noxious
 - c) Chemical
 - d) Electromagnetic
- 5) Increase in RBC count is known as
- a) Leucocytosis
 - b) Anisocytosis
 - c) Polycythemia
 - d) Anemia
- 6) Bitter taste is felt at following part of the tongue:
- a) Tip
 - b) Back
 - c) Side
 - d) Mid-dorsal
- 7) Substance released by basophils include
- a) Heparin
 - b) Bradykinin
 - c) Histamine
 - d) All of the above
- 8) All are the parts of nephron except
- a) Loop of henle
 - b) Bowman's capsule
 - c) Vasa recta
 - d) Glomerulus
- 9) Normal reticulocyte at birth is
- a) 1 – 2%
 - b) 2 – 6 %
 - c) 10 12 %
 - d) 20 – 30%
- 10) Junction that forms a barrier to movement of ions from one cell to another is known as
- a) Tight t junction
 - b) Adherens junction
 - c) Gap junction
 - d) Desmosome



- 11) In vitro coagulation is initiated by
- Factor 12
 - Factor 11
 - Factor 10
 - Factor 7
- 12) Dysfunction of basal ganglia leads to
- Crude writing
 - Agraphia
 - Miswritten alphabets
 - All of the above
- 13) The basic postural reflex is
- Stretch reflex
 - Golgi tendon reflex
 - Crossed extensor reflex
 - Positive supporting reflex
- 14) Hormone secreted by kidney includes all except
- Vitamin D
 - Renin
 - Erythropoietin
 - Vitamin A
- 15) Normal value of resting membrane potential in nerve is
- 70 mV
 - 10 mv
 - + 10 mv
 - + 80 mv
- 16) Amnesia refers to loss of
- Smell
 - Taste
 - Vision
 - Memory
- 17) During transmission of sound from inner ear , pressure within middle ear increases
- 2.2 times
 - 13 times
 - 22 times
 - 100 times



- 18) Renshaw cell inhibition is an example of
- a) Presynaptic inhibition
 - b) Post-synaptic inhibition
 - c) Recurrent inhibition
 - d) None of the above
- 19) Smell receptors are located in
- a) Lower 1/3rd of nasal mucosa
 - b) Upper 1/3rd of nasal mucosa
 - c) Cribriform plate
 - d) Olfactory bulb
- 20) Which of the following is a major site for glucose reabsorption in kidneys
- a) PCT
 - b) Loop of Henle
 - c) Late DCT
 - d) Collecting duct



Maharashtra University of Health Sciences, Nashik

A.C.P.M. Medical College, Dhule

Department of Physiology

Preliminary examination, Paper - II

Ist MBBS Regular batch 2016 – 17

April 2017

Time: 10 am to 1 pm

Total Marks: 50

Instructions:

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2. Do not write anything on blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort unfair means.
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7. Use a common answer book for all sections.

Section – B

(24 marks)

Q 2. Short answer questions (any six out of seven):

(6 x 4 = 24)

- a) Add a note on juxtaglomerular apparatus.
- b) Add note on micturition reflex.
- c) Compare & contrast light & dark adaptation.
- d) Add a note on classification of reflexes.
- e) Describe primary active transport with examples.
- f) Describe the mechanism of excitation contraction coupling.
- g) Add a note on classification of immunity with examples.

Section C

Q 3. Long answer question (any two out of three):

(2 x 8 = 16)

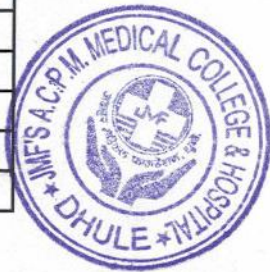
- a) Describe the connections & functions of basal ganglia. Add a note on Parkinson's disease.
- b) Draw a well labeled diagram of organ of corti. Describe its role in hearing.
- c) Describe the pathway for pain sensation. Add a note on referred pain.



Dept of Physiology
ACPM Medical College, Dhule
Internal Assisment Batch 2016-2017

Dt: 2/5/2017

Roll.No.	Name of the Students	Term(60)	P.U.(100)	Total	%	Round	Term(60)	P.U.(100)	Total	%	Round
1	AHIRRAO YASHRAJ SHRIPRASAD	27	34.5	61.5	7.6875	8	28	30	58	14.5	15
2	AKSHAY SHRIHARI PATIL	25.5	45.5	71	8.875	9	29	24	53	13.25	13
3	AMBAD ASHISH DATTATRAYA	41	46.5	87.5	10.9375	11	24	23	47	11.75	12
4	ANSARI ASAD MOHD ASLAM	28.5	45.5	74	9.25	9	20	28	48	12	12
5	ANSARI A B KHAIRUL BASHAR	23	45	68	8.5	9	24	27	51	12.75	13
6	ANSARI Z AALAM M JAWEED	27.5	44.5	72	9	9	26	25	51	12.75	13
7	AROTE AVANTI ARUN	33.5	60.5	94	11.75	12	31	23	54	13.5	14
8	ASHUTOSH BADWAIK	28	43	71	8.875	9	28	26	54	13.5	14
9	BANSODE MEGHARANI MANOHAR	19.5	42.5	62	7.75	8	30	27	57	14.25	14
10	BAVISKAR JATIN HEMKANT	30	49	79	9.875	10	26	22	48	12	12
11	BHAMAT AAYUSHI ANANT	46	51	97	12.125	12	27	28	55	13.75	14
12	BHIRUD DEVARSH VASUDEO	39.5	37.5	77	9.625	10	25	21	46	11.5	12
13	BONDE JAYESH REMCHAND	36	40.5	76.5	9.5625	10	25	26	51	12.75	13
14	BONDE KUNAL SUNIL	38	46.5	84.5	10.5625	11	25	27	52	13	13
15	BONGANE NAMDEV BHIMARAO	33	42	75	9.375	9	29	25	54	13.5	14
16	CHAKRAWAR MAYUR MAHADEO	39	44.5	83.5	10.4375	10	25	25	50	12.5	13
17	CHAVAN SIDDHESH RAJENDRA	30.5	62.5	93	11.625	12	30	27	57	14.25	14
18	CHOUGULE KIRAN SHIVAJI	33.5	46.5	80	10	10	25	23	48	12	12
19	DEORE BHUSHAN YUVARAJ	42.5	50.5	93	11.625	12	30	31	61	15.25	15
20	DESHMUKH AJAY SATISHRAO	27.5	43	70.5	8.8125	9	29	25	54	13.5	14
21	DESHMUKH HARSHALI VIJAY	23.5	44.5	68	8.5	9	28	22	50	12.5	13
22	DESHMUKH SACHIN BALASAHEB	44.5	50.5	95	11.875	12	32	25	57	14.25	14
23	DHANDE RAMAN RAJESH	38.5	44.5	83	10.375	10	30	29	59	14.75	15
24	DIMBAR NIHAL SURESH	31.5	27.5	59	7.375	7	30	27	57	14.25	14
25	DUDUKA SHRUTI SOMANATHAN	44.5	59.5	104	13	13	34	32	66	16.5	17
26	GAIKWAD ARTI TEJRAO	28	40.5	68.5	8.5625	9	26	26	52	13	13
27	GAJAKOS MANSI SUDHAKAR	40.5	57	97.5	12.1875	12	30	27	57	14.25	14



28	GHOHARE PRASHANT DATTU	44	49.5	93.5	11.6875	12	30	26	56	14	14
29	GIRI AKSHAY KALYAN	25	29	54	6.75	7	27	23	50	12.5	13
30	GOMKALE RUTUJA AMBADAS	33	49	82	10.25	10	28	27	55	13.75	14
31	GUJARATHI JEET SANDESH	37.5	49.5	87	10.875	11	31	27	58	14.5	15
32	JAGTAP OMKAR RAJENDRA	37.5	44	81.5	10.1875	10	27	24	51	12.75	13
33	KAPURE ABHISHEK MAHESH	36.5	50.5	87	10.875	11	29	23	52	13	13
34	KATEKHAYE ASHISH GIRIDHARI	33	50.5	83.5	10.4375	10	27	22	49	12.25	12
35	KAULKAR MAYUR KEDAR	20.5	24.5	45	5.625	6	29	25	54	13.5	14
36	KHAN MHD ABUBAKAR AFZAL	31	46.5	77.5	9.6875	10	26	23	49	12.25	12
37	KHAN SANIYA RIZWANKHAN	29.5	37.5	67	8.375	8	27	24	51	12.75	13
38	KHARE SHUBHAM AMBADAS	33	33	66	8.25	8	29	24	53	13.25	13
39	KHISTE ANKITA GIRISH	39.5	56	95.5	11.9375	12	31	28	59	14.75	15
40	KURAI ANUPAMA RAMESHWAR	24.5	43	67.5	8.4375	8	29	26	55	13.75	14
41	KURE NITIN DNYANDEV	37	50.5	87.5	10.9375	11	29	25	54	13.5	14
42	LADDA ANURAG SHYAMSUNDAR	34	41.5	75.5	9.4375	9	29	24	53	13.25	13
43	MAHORIYA VIDYA SURENDRA	29	37.5	66.5	8.3125	8	27	24	51	12.75	13
44	MAKESHWAR APURVA PRADEEP	35	53.5	88.5	11.0625	11	29	24	53	13.25	13
45	MIRGE AKSHAY GOPALRAO	40	44	84	10.5	11	26	24	50	12.5	13
46	MISAR SOHAM AVINASH	35	47.5	82.5	10.3125	10	29	28	57	14.25	14
47	MOHAMMED USMAN M SHAIKH	48	66	114	14.25	14	31	32	63	15.75	16
48	MOMIN ALMAS ABDUL RAHMAN	34	42	76	9.5	10	30	26	56	14	14
49	NIKAM JAGRUTI JAGANNATH	37	46	83	10.375	10	27	28	55	13.75	14
50	NIKITA ASHUTOSH ADHAW	33	48	81	10.125	10	27	25	52	13	13
51	PAL SHIVANI VINOD	30	36.5	66.5	8.3125	8	26	26	52	13	13
52	PATHAK PRATIKSHA DHANANJAY	48	74.5	122.5	15.3125	15	34	30	64	16	16
53	PATIL AAKANKSHA NISCHAL	39	54.5	93.5	11.6875	12	32	26	58	14.5	15
54	PATIL ABHISHEK VIJAY	43	61.5	104.5	13.0625	13	29	27	56	14	14
55	PATIL JAYDEEP PRADEEP	30	46.5	76.5	9.5625	10	25	25	50	12.5	13
56	PATIL PRANAV SHAILENDRA	37	42.5	79.5	9.9375	10	31	29	60	15	15
57	PATIL RATNADEEP DIPAK	40	43.5	83.5	10.4375	10	28	25	53	13.25	13
58	PATIL RIDDHI SUNIL	37	45.5	82.5	10.3125	10	20	25	45	11.25	11



59	PAYGHAN SHUBHAM PRALHAD	32	44.5	76.5	9.5625	10	26	20	46	11.5	12
60	PINJARI SHAIKH S SHAIKH RAMJAN	41	50	91	11.375	11	31	28	59	14.75	15
61	RAMCHANDANI SACHIN S	34	45.5	79.5	9.9375	10	27	24	51	12.75	13
62	RAUT AKSHADA SONBA	37.5	46.5	84	10.5	11	28	25	53	13.25	13
63	RAUT VAISHNAVI PRAMODRAO	36.5	58.5	95	11.875	12	29	23	52	13	13
64	SAOJI VRAJESH MILIND	26.5	39	65.5	8.1875	8	20	26	46	11.5	12
65	SATHIA AARSH KRUPAL	39	50.5	89.5	11.1875	11	29	28	57	14.25	14
66	SHAH ROMIN JANAK	36	55	91	11.375	11	29	29	58	14.5	15
67	SHAHU NIKITA SHANKAR	45	61.5	106.5	13.3125	13	30	30	60	15	15
68	SHAURYAVEER SINGH RANA	37.5	50.5	88	11	11	26	28	54	13.5	14
69	SHIRUDE ANUJ DINESH	43	51.5	94.5	11.8125	12	29	29	58	14.5	15
70	SHREY KUMAR DUBEY	30	66	96	12	12	22	31	53	13.25	13
71	SONTAKKE CHAITALI BANDU	32.5	45.5	78	9.75	10	28	28	56	14	14
72	TEJAS SONAWANE	30.5	31.5	62	7.75	8	28	26	54	13.5	14
73	TIGHARE VIJAYESH TULSIRAM	37.5	47	84.5	10.5625	11	28	28	56	14	14
74	VAIBHAVI H BEDEKAR	33	47	80	10	10	28	26	54	13.5	14
75	VALVI RAMESH SOMA	26.5	34	60.5	7.5625	8	28	24	52	13	13
76	WARE AKASH RANJIT	29.5	43	72.5	9.0625	9	27	27	54	13.5	14
77	YEDKE AISHWARYA SANJAY	31	65.5	96.5	12.0625	12	27	25	52	13	13
78	YENGANTE SHIVAM SHESHERAO	27.5	44.5	72	9	9	29	25	54	13.5	14



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