

Kafrelsheikh University
Faculty of Dentistry
Physiology final exam



Total: 60 marks
Time: Three hours
30/8/2017

Answer the following questions ? (5 marks for each question)

- Q1- Reflex action and reflex arc: definitions, types?
Q2- Mention functions of sympathetic supply to head& neck?
Q3- Compare between fast and slow pain?
Q4- Referred pain: definition, examples and mechanisms?
Q5- Discuss mechanism of blood coagulation?
Q6- Mention cellular mediated immunity?
Q7- Describe Regulation of salivary secretion?
Q8- Compare between secretin and cholecystokinin?
Q9- Vomiting: definition, mechanism and causes?
Q10- Enumerate physiological factors affecting blood pressure?
Q11- Tetany: definition, causes and types?
Q12- Enumerate functions of thyroid hormones?

الوقت لا يزال
دور سبب
سيرة

N.B Oral exam will be after written exam.

Good luck

Dr. Sanad Alkholy

Dr. Hani bery

ميراجيا

الفرقة الأولى

دور مايو ٢٠١٧

Kafrelsheikh University
Faculty of Dentistry
Physiology final exam



Total: 60 marks
Time: Three hours
22/5/2017

Answer the following questions ? (2 marks for each question)

- Q¹- Autonomic ganglia: definition, types functions?
Q²- Mention functions of Greater splanchnic nerve?
Q³- Compare between fast and slow pain?
Q⁴- Cutaneous hyperalgesia: definition, types and mechanisms?
Q⁵- Discuss mechanisms of hemostasis?
Q⁶- Mention Humoral (antibody mediated) immunity?
Q⁷- Describe Regulation of salivary secretion?
Q⁸- Compare between secretin and cholecystokinin?
Q⁹- Mention pharyngeal phase of deglutition?
Q¹⁰- Enumerate physiological factors affecting blood pressure?
Q¹¹- Tetany: definition, causes and types?
Q¹²- Enumerate functions of growth hormone?

N.B Oral exam will be after written exam at Sunday ٢٢/٥/ ٢٠١٧

Good luck

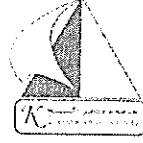
Dr. Samad Al-Khatib

Dr. Hani Kory

الحرف من الجواب
أ. ب. ج. د.

السؤال من
أ. ب. ج. د.
٢٠١٧ / ٢٠١٦

Midterm examination ٢٠١٧
Time allowed ٦٠ Minutes
First year



Kafrelsheikh University
Faculty of Dentistry
٢١/١/٢٠١٧

Physiology midterm examination

Q1: Map your answer in the following table:

No.	A	B	C	D	No.	A	B	C	D
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الدرجة

1- Gastric HCl secretion:

- A) Occurs secondary to active transport of H⁺ by the parietal cells into the lumen of the stomach.
- B) Is increased by administration of histamine.
- C) Is inhibited by the secretin hormone & H⁺ receptor blockers (e.g. cimetidine).
- D) All of the above

2- Stomach emptying is delayed by all the following EXCEPT:

- A) Certain GIT hormones e.g. secretin, CCK & GIP.
- B) Presence of excess fat in the meal.
- C) Moderate gastric distention.
- D) The enterogastric reflex and bilateral vagotomy

3- Concerning pancreatic juice:

- A) Gastrin is an important stimulant of secretion of bicarbonate by the pancreas.
- B) Secretin inhibits the secretion of pancreatic juice.
- C) Cholecystokinin (CCK) stimulates the secretion of pancreatic enzymes.
- D) Sight or smell of food does not affect pancreatic secretion

4- Secretin:

- A) Acts as a powerful cholagogue.
- B) Is secreted as a result of vagus nerve stimulation.
- C) Stimulates gastric secretion.
- D) Is released as a result of contact of acid chyme to the duodenal mucosa.

5- Which of the following statements is true?

- A) The intrinsic factor is secreted by the parietal cells of the gastric mucosa.
- B) The stomach normally absorbs about 30% of the ingested food.
- C) The secretion of gastric juice is associated with increased H⁺ in the blood.
- D) The gastric juice is essential for the digestion of both fat & protein.

6- The gastric juice has all the following characteristics EXCEPT:

- A) It contains an alkaline secretion from the surface epithelium.
- B) Its pH is always less than 7.
- C) It contains the intrinsic factor which is essential for vitamin B₁₂ absorption.
- D) Its antibacterial action is produced by its mucus content.

7- Function of the stomach include the following, EXCEPT:

- A) Storage of food during digestion.
- B) Secretion of intrinsic hemopoietic factor into the lumen.
- C) Secretion of secretin into the blood.
- D) The maintenance of iron in the ferrous state.

8- Concerning salivary amylase, all are true EXCEPT:

- A) Is secreted mainly by the parotid glands.
- B) Is a protein in nature.
- C) Is secreted in response to parasympathetic stimulation.
- D) Is most active at pH 1-2.

9- As regards gastrin hormone, all are true EXCEPT:

- A) Increased HCl secretion.
- B) Is released by vagal stimulation.
- C) Is released by stomach distention.
- D) Presence of acid in the stomach stimulated its release.

10- The salivary secretion:

- A) Has a constant composition regardless the rate of secretion.
- B) Is a simple process of filtration of the plasma.
- C) Is entirely under neural control.

D) Is under control of the cerebral cortex only.

11- The process of swallowing (deglutition):

A) Consists of 3 phases all of which are involuntary.

B) Can easily occur while the mouth is open.

C) Is controlled by a centre in the medulla & lower pons that initiates a peristaltic wave in the pharyngeal musculature.

D) In the buccal phase the tongue moves downwards and the larynx is depressed.

12- The act of the swallowing is associated with:

A) Movement of food into the nasopharynx.

B) Opening of the glottis.

C) Inhibition of respiration.

D) Constriction of the upper esophageal sphincter.

13- The sympathetic supply cannot be responsible for:

A) Constriction of the pupil.

B) Erection of hair.

C) Secretion of eccrine sweat glands.

D) Dilatation of skeletal muscle blood vessels.

14- Stimulation of the cervical sympathetic nerve causes:

A) Drooping of the upper eyelid.

B) A small-sized pupil.

C) Enophthalmos.

D) Relaxation of the ciliary muscle of the eye.

15- Sympathetic supply to the pelvic viscera cause:

A) Micturition.

B) Dilatation of vessels in external genitalia.

C) Defecation.

D) Ejaculation.

16- The sympathetic division of the autonomic nervous system is characterized by:

A) Localized actions affecting few systems.

B) Thoracolumbar outflow from the spinal cord.

C) Short postganglionic fibres.

D) Adrenergic preganglionic fibres.

17- A lesion in the cervical symp. chain (Horner's syndrome) causes:

A) Increased sweating.

B) Drooping of the upper eyelid (=ptosis).

C) Vasoconstriction of the skin blood vessels (leading to pallor).

D) Mydriasis (= dilatation of the pupil).

18- Stimulation of the greater splanchnic nerve produces:

A) Increased motility of the plain muscles of the stomach.

B) Excessive secretion of the gastric juice by the stomach.

C) Decreased blood levels of both glucose & free fatty acids.

D) Secretion of epinephrine & norepinephrine by the adrenal medulla.

19- Postganglionic sympathetic starting from cervical and upper four thoracic ganglia causes:

A) Secretion of the adrenomedullary hormones.

B) Dilatation of the coronary vessels.

C) Contraction of the splenic capsule.

D) Narrowing of the respiratory passages.

20- Concerning the autonomic ganglia, all the following is true EXCEPT:

A) They acting as distributing centers.

B) They are 3 types.

C) Their chemical transmitter is acetylcholine.

D) Their receptors are specifically blocked by atropine.

११- The following reflexes are all autonomic EXCEPT:

- A) Salivary secretion. B) Micturition.
C) Flexion of the arm following a painful stimulus. D) Defecation.

१२- The autonomic nervous system differs from the somatic nervous system in:

- A) Having one efferent neuron.
B) Preganglionic neurons are located in the anterior horn of the spinal cord.
C) Efferent nerves have either excitatory or inhibitory effects on the effector organs.
D) Postganglionic neurons are located in the lateral horn of spinal cord.

१३- Stimulation of the pelvic nerve causes:

- A. Contraction of the bronchial muscle.
B. Contraction of the internal urethral & rectal (anal) sphincters.
C. V.D. of the blood vessels in the external genitalia.
D. Stoppage of prostatic secretions.

१४- The efferent impulses that stimulate salivary secretion proceed along all the following nerves except the:

- A. Chorda tympani. B. Sympathetic nerves.
C. Oculomotor nerve. D. Glossopharyngeal nerve.

१५- The parasympathetic nervous system affects all of these organs EXCEPT:

- A. Heart. B. Pupillary smooth muscles.
C. Salivary glands. D. Adrenal glands.

१६- About the vagus nerve, all the following is true except:

- A. It originates mainly from medulla oblongata.
B. It contains parasympathetic preganglionic Fibres.
C. It has no direct effect on ventricular contraction.
D. It produces micturition.

१७- About acetylcholine, all the following is true except:

- A. Its synthesis is catalyzed by the choline acetyltransferase enzyme.
B. Its muscarinic actions can be blocked by atropine.
C. Its nicotinic actions can be large doses of nicotine.
D. It is not secreted by any sympathetic Postganglionic Nerve fibres.

१८- Which of the following drugs would not increase sympathetic activity?

- A. Norepinephrine. B. Phenylephrine.
C. Amphetamine. D. Pilocarpine.

१९- Erythroblastosis fetalis occurs with:

- A) Rh -ve mother & Rh +ve fetus. B) Rh -ve mother & Rh -ve father.
C) Rh +ve mother & Rh -ve fetus. D) Rh +ve mother & Rh -ve father.

२०- Blood agglutination would occur in all the following cases EXCEPT:

- A) If the donor group is O & the recipient group AB.
B) If the donor group is AB & the recipient group O.
C) If the donor group is B & the recipient group O.
D) If the donor group is A & the recipient group B.

२१- About the action of anticoagulants, all the following is true EXCEPT:

- A) Dicumarol interferes with the synthesis of prothrombin in the liver.
B) Oxalates form insoluble salts with Ca⁺⁺.
C) Citrates & other chelating agents bind Ca⁺⁺.
D) Heparin blocks the action of antithrombin III.

२२- Which of the following used for digests intra & extra vascular deposit of Fibrin?

- A- thromboplastin B- Plasmin
C- VII D- Prothrombin

33- The A/G ratio is important clinically in detecting:

- A) Liver disease.
- B) Cardiac disease.
- C) Nervous disease.
- D) Lung disease.

34- As regards the osmotic function of albumin:

- A) It is the least effective for the fluid exchange at the capillaries.
- B) It is due to permeability of the capillary membrane to albumin.
- C) It draws the tissue fluid to blood.
- D) Cystalloids in plasma possess a very small osmotic pressure compared to albumin.

35- Calcium is essential for all of the following steps in the clotting EXCEPT:

- A) Activation of factor IX by factor XI.
- B) Activation of factor XI by factor XII.
- C) Activation of factor X by factor IX.
- D) Formation of thrombin from prothrombin.

36- About the coagulation mechanism, all the following is true EXCEPT:

- A) The intrinsic system occurs both in vivo & in vitro.
- B) Intravascular thrombosis occurs by the extrinsic system.
- C) The intrinsic system utilizes factors 8, 9, 11 & 12.
- D) Factors 10 & 13 are needed for both the extrinsic & intrinsic systems.

37- Haemophilia:

- A) Leads to prolongation of bleeding time.
- B) Results from deficiency of factor VIII or IX.
- C) Is due to decreased blood platelets.
- D) Is associated with normal coagulation time.

38- About the white blood cells, all the following is true EXCEPT:

- A) B and T lymphocytes are concerned with humoral and cellular immunity.
- B) Eosinophils increase in allergic conditions and parasitic infections.
- C) Basophils contain heparin and histamine.
- D) Neutrophils are the least abundant leukocytes.

39- About iron deficiency anaemia:

- A) It is more common in the men than in women.
- B) It is characterized by large pale erythrocytes.
- C) It is typically found following chronic blood loss from the body.
- D) It occurs in gastric diseases associated with lack of intrinsic factor.

40- Erythropoietin is essential for:

- A) Blood clotting.
- B) Leukopoiesis.
- C) Formation of prothrombin.
- D) Formation of red blood corpuscles.



Answer the following questions ? (5 marks for each question)

Q1- Reflex action: definition and types?

Q2- Enumerate functions of vagus nerve?

Q3- Compare between heparin and dicumarol?

Q4- Anemia: definition and causes of hemolytic anemia?

Q5- Compare between fast and slow pain?

Q6- Mention components of pain analgesia system and mechanism of action?

Q7- Enumerates functions of HCL?

Q8- Describe Regulation of salivary secretion?

Q9- Mention Bainbridge reflex?

Q10- Enumerate immediate compensatory mechanisms of Haemorrhage?

Q11- - Parathormone hormone: site of release and actions?

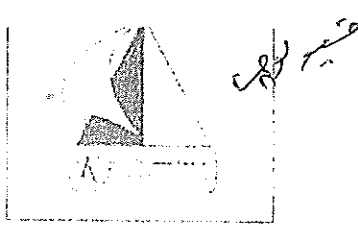
Q12- Enumerate functions of Glucocorticoids?

دور ماضي
بعض الاعراض
مضاد للتخثر

N.B Oral exam at Sunday 5/6/ 2016 (9 A.M.) in physiology department

أستاذة جواهر
عبدالله

Good luck



Answer the following questions ? (5 marks for each question)

- Q1- Autonomic ganglia: definition, types and functions?
- Q2- Enumerate signs of Horner syndrome?
- Q3- Compare between hemophilia and purpura?
- Q4- Discuss functions of erythrocytes?
- Q5- Referred pain: definition and mechanisms?
- Q6- Compare between primary and secondary hyperalgesia?
- Q7- Enumerates functions of saliva?
- Q8- Describe pharyngeal phase of deglutition?
- Q9- Mention respiratory sinus arrhythmia?
- Q10- Enumerate physiological factors affecting arterial blood pressure?
- Q11- Tetany: definition, causes and types?
- Q12- Enumerate functions of Growth hormone?

N.B Oral exam will be after written exam in physiology department

Good luck



دور سبتمبر 2014 - 2015

الفروع الأخرى
سعيد محمد

Kafrelsheikh University

Faculty of dentistry

Physiology department

Physiology Exam

Time: three hours

3/9/2015

Answer the following questions ? (each question in separate page)

- 1- Enumerate functions of vagus nerve? (5 marks)
- 2- Functions of sympathetic to head and neck? (5 marks)
- 3- Compare between heparin and dicumarol? (5 marks)
- 4- anemia: definition and causes of hemolytic anemia? (5 marks)
- 5- Compare between fast and slow pain? (5 marks)
- 6- Mention causes of extra cranial headache? (5 marks)
- 7- Enumerates functions of HCL? (5 marks)
- 8- Describe mechanisms of pancreatic secretions? (5 marks)
- 9- Respiratory sinus arrhythmia: definition and mechanism? (5 marks)
- 10- Enumerate physiological factors affecting arterial blood pressure? (5 marks)
- 11- Tabulate anterior pituitary hormones? (5 marks)
- 12- Enumerate physiological actions of parathormone? (5 marks)

N.B. Practical and Oral Exam after Written Exam in physiology department

Good luck



بفرقة الأول
دور عام ٢٠١٥
مركز الطب

Kafrelsheikh University
Faculty of dentistry
Physiology department

Physiology Exam
Time: three hours
8/6/2015

Answer the following questions ? (each question in separate page)

- 1- Autonomic ganglia: definition and types? (5 marks)
- 2- Enumerate signs of Horner's syndrome? (5 marks)
- 3- Compare between intrinsic and extrinsic mechanism of coagulation? (5 marks)
- 4- Enumerate dietary Substances essential to erythropoiesis? (5 marks)
- 5- Referred Pain: definition and mechanism? (5 marks)
- 6- Mention causes and types of headache? (5 marks)
- 7- Enumerates functions of saliva? (5 marks)
- 8- Describe Pharyngeal phase of Swallowing? (5 marks)
- 9- Factors affecting myocardial rhythmicity? (5 marks)
- 10- Enumerate physiological factors affecting arterial blood pressure? (5 marks)
- 11- Tetany: definition, causes and types? (5 marks)
- 12- Enumerate physiological actions of insulin? (5 marks)

N.B Oral Exam after Written Exam in physiology department

Good luck



Kafrelsheikh University
Faculty of dentistry
Physiology department

Physiology Exam
Time: three hours
8/6/2015

Answer the following questions ? (each question in separate page)

- 1- Autonomic ganglia: definition and types? (5 marks)
- 2- Enumerate signs of Horner's syndrome? (5 marks)
- 3- Compare between intrinsic and extrinsic mechanism of coagulation? (5 marks)
- 4- Enumerate dietary Substances essential to erythropoiesis? (5 marks)
- 5- Referred Pain: definition and mechanism? (5 marks)
- 6- Mention causes and types of headache? (5 marks)
- 7- Enumerates functions of saliva? (5 marks)
- 8- Describe Pharyngeal phase of Swallowing? (5 marks)
- 9- Factors affecting myocardial rhythmicity? (5 marks)
- 10- Enumerate physiological factors affecting arterial blood pressure? (5 marks)
- 11- Tetany: definition, causes and types? (5 marks)
- 12- Enumerate physiological actions of insulin? (5 marks)

N.B Oral Exam after Written Exam in physiology department

Good luck

Kafrelsheikh University
Midterm examination 2016

11/4/2016

Faculty of Dentistry
Time allowed 60 Minutes

First year 1ST term

Physiology examination

Map of answers: shade your final choice in the table MCQ:

No.	A	B	C	D
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Marks

(-----)

10

(A) Answer the following with choose the correct answer?

(7.5 marks)

1- Stimulation of the pelvic nerve (sacral autonomic) produces

- a) Relaxation of the wall of rectum & contraction of the internal anal sphincter.
- b) Vasoconstriction of the blood vessels in the external genitalia causing erection of penis.
- c) Contraction of the urinary bladder wall & relaxation of the internal urethral sphincter.
- d) Contraction of smooth muscles in the male sexual passages causing ejaculation.

2. Stimulation of the greater splanchnic nerve produces :

- a) Increased motility of the plain muscles of the stomach.
- b) Excessive secretion of the gastric juice by the stomach.
- c) Decreased blood levels of both glucose & free fatty acids.
- d) Secretion of epinephrine & norepinephrine by the adrenal medulla.

3. Stimulation of lesser splanchnic nerve causes:

- a) Micturition. b) Defecation. c) Ejaculation. d) Erection.

4. Activation of sympathetic nervous system produces the following EXCEPT:

- a) Bronchodilatation. b) Tachycardia. c) Mydriasis (dilatation of pupil). d) Contraction of the wall of urinary bladder.

5. Which of the following may be produced by parasympathetic stimulation:

- a) Acceleration of the heart. b) Contraction of the urinary bladder wall.
- c) V.D. of skeletal muscle blood vessels. d) Dilatation of the pupil.

6- The bleeding is prolonged in:

- (A) Hemophilia. (B) Purpura c) Anemia. (D) both A) and B).

7- The conversion of fibrinogen to fibrin is promoted by:

- (A) Factor X. (B) Thrombin. (C) Prothrombin. (D) Platelets.

8- The plasma globulin is specially needed for :

- a) Immunity. b) Production of osmotic pressure.
- c) Blood coagulation. d) All of the above.

9- Purpura is caused by deficiency of:

- (A) Factor VIII. (B) Prothrombin. (C) Vitamin K. (D) Platelets.

10-As regard intrinsic system of blood coagulation:

- a) It is activated within 12 - 20 seconds.
- b) Occurs in vivo and in vitro.
- c) Start by activation of factor VII.
- d) Needs factor XII, XI, X, IX, VII, Ca^{++} & PL.

11-The plasma proteins perform all the following functions EXCEPT:

- a) They exert an osmotic force.
- b) They have buffering action.
- c) They help maintenance of the arterial blood pressure (=A.B.P.).
- d) They play no role in the body defense mechanisms.

12-Concerning the pelvic nerve, all the following is true EXCEPT:

- a) It is the nerve of erection.
- b) It is motor to the urinary bladder & distal half of the large intestine.
- c) It is inhibitory to both the internal anal & urethral sphincters.
- d) It is motor to the wall of gall bladder.

13-Vagus parasympathetic nerve supplies all the following structures EXCEPT:

- a) Gall bladder. b)Stomach. c)Rectum. d)Pancreas.

14. All the following about plasmin is true except:

- (A) It is formed from plasminogen by a tissue activator (TPA).
 (B) It produces fibrinogen degradation products (FDP).
 (C) The antiplasmin is probably an inhibitor to the TPA and not to plasmin itself.
 (D) It is responsible for the formation of fibrin.

15. The main site of production of erythropoietin is

- a) The kidneys. B) The lung c) the liver d) the bone marrow.

(B) Answer the following with true or false and correct the false?

(2.5 marks)

No.	True	False
1. Heparin as anticoagulant facilitate the action of Antithrombin III, which block the activity of clotting factors VIIa, IXa, Xa.		
2. Horner's syndrome is a group of signs which result from interruption of sympathetic supply to head & thorax.		
3. Plasma colloidal osmotic pressure (mainly due to albumin,) which is about 25 mmHg which act as a filtering force.		
4. Terminal ganglia lie near the organ of supply or inside its wall and are mainly parasympathetic.		
5. Conditioned reflexes are inborn reflexes (i.e. present at the time of birth).		

Correction:

1.
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(A)

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أولى السنة
مادة الفسيولوجيا
ع. 16 - ع. 17

No.	A	B	C	D
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Choose the correct answer: (8 Marks)

1- Prolonged bleeding occurs in:

- a) Haemophilia.
- b) Vitamin K deficiency.
- c) Thrombocytopenia.
- ~~d) All of the above~~

2- The polypeptides of fetal hemoglobin consists of:

- a) 2 alpha and 2 beta chains.
- b) 2 alpha and 2 delta chains.
- ~~c) 2 alpha and 2 gamma chains.~~
- d) 2 beta and 2 gamma chains.

~~3- About iron metabolism in normal adults:~~

- a) The human body needs about 200 mg of iron daily.
- b) Iron deficiency anemia is normocytic.
- ~~c) The human body contains about 4-5 gm of iron.~~
- d) Both b) and c) are true.

4- The red cells in vitamin B12 deficiency anemia are:

- a) Normocytic normochromic.
- ~~b) Macrocytic hyperchromic.~~
- c) Spherocytic cells.
- d) Microcytic hypochromic.

5- The plasma albumin is specially needed for :

- a) Immunity.
- ~~b) Production of osmotic pressure.~~
- c) Blood coagulation.
- d) All of the above.

6- Improper maturation of the red blood cells can be caused by:

- a) Vitamin B6 deficiency.
- b) Hypoxia.
- c) Iron deficiency.
- d) Folic acid deficiency.

7- The main site of production of erythropoietin is the:

- a) Liver.
- b) Bone marrow.
- c) Kidneys.
- d) both a) and c).

8- As regard intrinsic system of blood coagulation:

- a) It is activated within 12 - 20 seconds.
- b) Occurs in vivo only.
- c) Start by activation of factor VII.
- d) Needs factor XII, XI, X, IX, VIII, Ca⁺⁺ & phospholipids.

9- Hemorrhagic anemia may be caused by the following:

- a) Vitamin C deficiency.
- b) Abnormal haemoglobin.
- c) Incompatible blood transfusion.
- d) Both (b) and (c).

10- Pernicious anaemia may be all the following EXCEPT:

- a) Sometimes the result of the malabsorption syndrome.

- b) Treated with iron.
- c) The cause of peripheral neuropathy.
- d) Associated with carcinoma of the stomach.

11- All the following conditions cause anaemia EXCEPT:

- a) Erythroblastosis fetalis.
- b) Destruction of the bone marrow.
- c) Living at high altitudes.
- d) Vitamin B12 deficiency.

12- About the action of anticoagulants , all the following is true EXCEPT:

- a) Heparin blocks the action of antithrombin III
- b) Oxalates form insoluble salts with Ca^{++} .
- c) Citrates & other chelating agents bind Ca^{++} .
- d) Dicumarol interferes with the synthesis of prothrombin in the liver.

13- The haemorrhagic tendency in obstructive jaundice is due to:

- a) Deficiency of factors II, VII, IX & X.
- b) Deficiency of factor VIII, IX and XI.
- c) Increased serum bilirubin and decreased vitamin C.
- d) Lack of factors II, VII, IX & XI.

14- Dicumarol acts as an anticoagulant by:

- a) Competitive inhibition of vitamin K and failure of synthesis of thrombin.
- b) Competitive inhibition of vitamin K and failure of synthesis of fibrinogen.
- c) Competitive inhibition of vitamin K and failure of synthesis of prothrombin.
- d) Competitive inhibition of vitamin K and failure of synthesis of factor V.

15- Haemophilia:

- a) Is due to deficiency of factor VIII or IX or XI and more common in females.
- b) Results from deficiency of factor VII or IX or XI and more common in males.
- c) Is due to deficiency of factor VIII or IX or XI and more common in males.
- d) Is associated with normal coagulation time and prolonged bleeding time.

16. Concerning the autonomic ganglia, the following is true:

- a) Lateral ganglia are the site of relay of sympathetic and parasympathetic.
- b) Terminal ganglia are the site of relay of sympathetic only.
- c) Their chemical transmitter is acetylcholine and blocked by large dose of nicotine.
- d) Their chemical transmitter is acetylcholine and receptors are muscarinic receptors.

17. The parasympathetic nerves:

- a) Are important in emergency conditions e.g. fight and flight reactions.
- b) Play important functions in the skin and skeletal muscles.
- c) Tend to have longer postganglionic fibers than preganglionic fibers.
- d) Exert similar effects to those of the sympathetic nerves on salivary glands.

18. All the following about the sympathetic nervous system is true except:

- a) It is called the nerve of retention on GIT.

- b) All its preganglionic fibers are cholinergic.
- c) It has a vasoconstrictor effect on skeletal muscle blood vessels.
- d) It stimulates and increase all properties of the heart.

19. About acetylcholine, all the following is true except:

- a) Its destruction by cholinesterase enzyme.
- b) Its muscarinic actions can be blocked by atropine.
- c) It is not secreted by any sympathetic postganglionic nerve fibers.
- d) Its nicotinic actions can be blocked by large doses of nicotine.

20. A lesion in the superior cervical sympathetic ganglia causes :

- a) Increased sweating.
- e) Pupilliconstriction.
- f) Vasoconstriction of the skin blood vessels.
- g) Mydriasis.

21. The muscrine-like action of acetylcholine is present in all the following except:

- (a) The sympathetic postganglionic supply to the sweat glands.
- (b) The parasympathetic postganglionic supply to the heart.
- (c) All preganglionic nerve endings.
- (d) All parasympathetic postganglionic nerve endings.

22. Stimulation of the pelvic nerve causes:

- (a) Contraction of the bronchial muscle.
- (b) Contraction of the internal urethral and anal sphincters.
- (c) Vasodilatation of the blood vessels in the external genitalia.
- (d) Urine retention.

23. Stimulation of the vagus nerve causes:

- (a) Contraction of the bronchial muscles.
- (b) Contraction of the internal urethral and anal sphincters.
- (c) Vasodilatation of the blood vessels in the external genitalia.
- (d) Micturition.

24. Acetylcholine is secreted in the following:

- (a) The sympathetic postganglionic supply to the sweat glands.
- (b) The sympathetic postganglionic supply to the heart.
- (c) The sympathetic postganglionic supply to the salivary glands.
- (d) All sympathetic postganglionic nerve endings.

25. About the sympathetic nervous system:

- a) It is called the nerve of erection and stimulated in emotional stress.
- b) All its preganglionic fibers are adrenergic.
- c) It has a vasoconstrictor effect on skeletal muscle blood vessels.
- d) Tend to have longer postganglionic fibers than preganglionic fibers.

CASE Study I: (1 Mark)

A patient presents to your office complaining of extreme fatigue and shortness of breath on exertion that has gradually worsened over the past 2 weeks. On physical examination, you observe a well-nourished woman who appears comfortable but somewhat short of breath. Her vital signs include a pulse of 120, respiratory rate of 20, and blood pressure of 120/70. When she stands up her pulse increases to 150 and her blood pressure falls to 80/50. Her hematologic values are Hemoglobin 7 g/dL, Hematocrit value 30%, RBC count 3.5 million/ml, platelet count of 400,000/ml. On a peripheral smear of blood picture, her RBCs are microcytic. What would be your diagnosis of this patient?

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CASE Study II: (1 Mark)

A 45-year-old female arrives for her annual physical. She complains of itching in her hands along with headaches and vertigo. A routine complete blood count (CBC) shows red blood cells (RBCs) of 8.5 million/ml, white blood cells (WBCs) 12,000/ml, and platelets 540,000/ml. Her erythropoietin levels are higher than normal. What is the primary diagnosis? Explain your answer?

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