

### **DZ-4003**

## First M. B. B. S. Examination

June / July - 2016

Physiology: Paper - I

Sime : $2\frac{1}{2}$ Hours]	[Total Marks: 50
nstructions:	
1)	
નીચે દર્શાવેલ 👉 નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Filiup strictly the details of 👉 signs on your answer book.	Seat No.:
Name of the Examination :	
FIRST M. B. S.	
Name of the Subject :  PHYSIOLOGY : PAPER - 1	
-Subject Code No.: 4 0 0 3 -Section No. (1, 2,):	Student's Signature
2) Both the sections should be written in	separate answer sheets
SECTION - I	
Write briefly : (any three)	3×2=6
(a) Facilitated diffusion	
(b) A-V Nodal delay	
(c) Frank Starling law	
(d) Transport maximum for Glucose.	
2 Short essays : (any three)	3×5=15
(a) Pathophysiology of haemorrhagic	shock
(b) Cell mediated immunity	
(c) Composition and function of gastr	ric juice
(d) GFR and factors affecting it.	
DZ-4003] 1	[Contd

### SECTION - II

- 3 Define and classify Hypoxia. Describe hypoxic hypoxia in 10 detail. Add a note on acclimatization to high altitude.
- 4 Write notes on : (any three)

 $3 \times 3 = 9$ 

- (a) Compare and contrast first and second Heart sounds.
- (b) Oxygen-hemoglobin dissociation curve.
- (c) Sliding filament theory of muscle contraction.
- (d) Mismatched Blood transfusion.

5 MCQs

1×10=10



## DZ-4004

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June / July - 2016

Physiology: Paper - II

Time: $2\frac{1}{2}$ Hours]	[Total Marks: 50
Instructions:	
(1)	
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Name of the Subject :	
Physiology: Paper - 2	
Subject Code No.: 4 0 0 4 Section No. (1, 2,): 182	Student's Signature
(2) Both the sections should be written in se	parate answersheets
SECTION - I	
1 Write briefly : (any three)	3×2=6
(a) Property of synapse-'Subliminal fring	ge'.
(b) Draw a neat labelled diagram of pho	otoreceptors.
(c) Differences between somatic and auto	onomic nervous system
(d) Functions of CSF.	
2 Short essays: (any three)	3×5=15
(a) Precocious puberty	
(b) Saltatory conduction	
(c) Tests of hearing	
(d) Physiological actions of Insulin	
DZ-4004]	[Contd

### SECTION - II

- 3 Give an account of connections and functions of cerebellum. 10
- 4 Write notes on: (any three)

3×3=9

- (a) Mechanism of action of combined Oral Contraceptive Pills
- (b) Brown-Sequard Syndrome
- (c) Milk ejection reflex
- (d) Dark adaptation.
- 5 MCQs

1×10=10

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	4.	(a)	main muscle of inspiration is : External intercostal
		(b)	Internal intercostal
		(c)	Diaphragm
		(d)	Scalene
	5.		appears in which stage of erythropoiesis?
		2 6	Proerythroblast
		(b)	Intermediate normoblast
		(c)	Reticulocyte
		(d)	None of the above
	6.	Tub	oular transport maximum for glucose in mg/min is :
		(a)	80
		(b)	200
		(c)	180
		(d)	375
	7.		lowing is the short term regulating mechanism for
		(a)	renin-angiotensin system
		(b)	stress relaxation
		(c)	baroreceptor mechanism
		(d)	abdominal compression reflex
	8.	For	the ABO blood group system, the antigens are found, and the antibodies are found.
		(a)	
		(b)	
		(c)	on the leukocytes, in the plasma
		(d)	in the plasma, on the erythrocytes
	9.	Vita	amin $B_{12}$ is absorbed primarily in the
		(a)	Stomach
		(b)	Duodenum
		(c)	Jejunum
		(d)	Ileum
		(4)	
	10.	In g	gastrointestinal tract, Auerbach's plexus is concerned
		prii	marily with
		(a)	Secreting activity
		(b)	Sensory function
		(c)	Motor control
		(d)	Blood flow
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	6. Ov	ulation usually occurs:	
	(a)	14 days prior to menses	
	(b)	5 days after menses	
	(c)	7 days before menses	
	(d)	During Menses	
	7. Be	l-Magendie law is :	
	(a)		
	(b)		
	(c)		
	` '	Ventral root is sensory and dorsal root is motor.	
	(0.5)	, carried 1000 is sensory and dorsar 1000 is motor.	
	8. Th	e proliferative phase of menstrual cycle is controlled	
	by		
		Estrogen	
	(b)		
	(c)	Prolactin	
	(d)	HCG	
	(u)	1100	
	9. Th	e site of action of ADH is :	
	9. 111 (a)		
	· /	8	
	(b)	O	
	(c)	Distal Convoluted tubules	
	(d)	Proximal Convoluted tubules	
	10 37%	ich of the fill-ing is NOW of the first	_
	10. Wh	ich of the following is NOT a feature of Cushing's	
		ndrome ?	
		Moon Face	
	(b)		
	(c)		
	(d)	Buffalo torso.	
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The fovea is the part of the retina that contains:

A patient with hypothyroidism is likely to have :

(b) Lid retraction
(c) Exophthalmos
(d) Moist hands and feet

(a) Subnormal body temperature

(a) Amacrine cells(b) Ganglion cells

(c) Rods (d) Cones

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	First Year M. B.		ation
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	OBJECTIVE	QUESTIONS	
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			1×10=10
	e end product of anaerobic	glycolysis is	
	Pyruavate		
( )	Lactate		
	Phosphoenol pyruvate		
(D)	Acetyl CoA		
(2) Ro	enone inhibits transfer of	electron from	
(A)	FMN to CoQ		
(B)	NAD+ to FMN		
(C)	Cyto bel to cyto c		
(D)	Cyto a3 to O2		
(3) Bio	otin takes part in one of t	he following types	s of reaction.
(A)			
	Deamination		
	Carboxylation		
(D)	Decarboxylation		

(6)	Accumulation of which of the following metabolite in lens of eye causes cataract (A) Sorbitol (B) Xylitol (C) Mannitol (D) Dulcitol	
(7)	All of the following are derivatives of cholesterol EXCEPT  (A) Bile acids (B) Bile pigments (C) Steroid hormones (D) Vitamin D	
(8)	The ammonium ions excreted into the urine are derived from  (A) Asparagine (B) Aspartate (C) Glutamate (D) Glutamine	
(9)	Which one of the following apoprotem activates lipoprotein lipase enzyme?  (A) apo A1 (B) apo B48 (C) apo CII (D) apo E	
(10)	Which of the following compounds transport activated fatty acid from cytosol to mitochondria?  (A) Calathrin (B) Creatin (C) Carnitine (D) Creatinine	
DZ	-4005-O] 2 [600]	

(4) Which of the following mucopolysaccharide does not contain

Which of the following molecules is synthesized by Rapaport

uronic acid ?
(A) Hyaluronic,acid
(B) Chondroitin sulphate
(C) Dermatan sulphate
(D) Keratin sulphate

Lubering cycle ?

(D) Lactate

(A) 1-3 Biphosphoglycerate(B) 2-3 Biphosphoglycerate(C) Phosphoenal pyruvate