

F.Y.P.B.Sc (Nursing) : Wintex-2018
SUBJECT: BIOCHEMISTRY AND BIOPHYSICS

Day: Monday

Date: 8-10-2018

Time: —

Max. Marks: 15

W-2018-4051

N.B:

- 1) All questions are **COMPULSORY**.
- 2) Put a tick mark in the appropriate box.
- 3) Use **BLUE/ BLCK** pen only.
- 4) Section one should be completed in **15** minutes.
- 5) Each question carries **ONE** mark.
- 6) Students will be allotted marks if he/ she overwrite strikes or puts white ink on the cross once marked.

Seat No.: _____

Total Marks Obtained _____

Jr. Signature _____

Examiners Signature _____

SECTION-I
(BIOCHEMISTRY)

Q.1 MCQ:

Q.1 Normal serum total cholesterol level is _____.

- a) 150- 200 mg/dl
- b) 100-150 mg/dl
- c) 60- 130 mg/dl
- d) 40-60 mg/dl

Q.2 Hyponatremia is the condition where concentration of _____.

- a) Na- decreases
- b) K- decreases
- c) Na- increases
- d) K- increases

Q.3 Synthesis of glucose from non carbohydrate substances is called as _____.

- a) Glycolysis
- b) Glycogenesis
- c) Gluconeogenesis
- d) Glycogenolysis

Q.4 Benedict's test is used for detection of _____.

- a) Urea in Urine
- b) Sugar in urine
- c) Ketone bodies in urine
- d) Protein in urine

P.T.O.

- Q.5** The only immunoglobulin which can cross the placenta is _____.
- a) IgA
 - b) IgM
 - c) IgG
 - d) IgD

- Q.6** One of the following enzyme useful in diagnosis of pancreatitis is _____.
- a) Lipase
 - b) Alanine amino transferase
 - c) Cholinesterase
 - d) None of these

- Q.7** All are ketone bodies Except _____.
- a) Acetoacetic acid
 - b) Acetone
 - c) β hydroxy butyrate
 - d) Acetyl coA

- Q.8** Uric acid level increases in _____.
- a) Jaundice
 - b) Diabetes mellitus
 - c) Diabetes insipidus
 - d) Gout

(BIOPHYSICS)

- Q.9** Which of the following quantities has no unit _____.
- a) Stress
 - b) Strain
 - c) Surface tension
 - d) Velocity

- Q.10** Entox is a mixture of oxygen and nitrous oxide in the ratio _____.
- a) 25: 75
 - b) 75: 25
 - c) 50: 50
 - d) 60: 40

Q.11 Mass of an object at the centre of the earth is _____.

- a) Zero
- b) Maximum
- c) Minimum
- d) Remains same

Q.12 In the case of fixed pulley the mechanical advantages is _____.

- a) 0
- b) 1
- c) 2
- d) 3

Q.13 Astigmatism can be removed by using _____.

- a) Convex lens
- b) Concave lens
- c) Cylindrical lens
- d) Prismatic lens

Q.14 The loudness of the sound depends upon which of the following?

- a) Amplitude
- b) Pitch
- c) Speed
- d) Wavelength

Q.15 In a X-ray tube target is generally made of _____.

- a) Lead
- b) Tungsten
- c) Copper
- d) Antimony

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F. Y. P. B. B. SC. (NURSING) : WINTER- 2018
SUBJECT: BIOCHEMISTRY AND BIOPHYSICS

Day: Monday
Date: 08/10/2018

Time: 10.00 A.M. TO 01.00 P.M.
Max. Marks: 60

W-2018-4051

N.B:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.

SECTION-II
(BIOCHEMISTRY)

Q.2 Write short notes on (ANY THREE) : (15)

- a) Atherosclerosis
- b) Diagnostic applications of enzymes
- c) Functions of pituitary gland hormones
- d) Immunoglobulins

Q.3 Long Question on (ANY ONE): (15)

- a) What is glycolysis? Describe the pathway of glycolysis. Give its energetics in detail.
- b) Describe the urea cycle. Write a note on uremia.

SECTION-III
(BIOPHYSICS)

Q.4 Write short notes on (ANY THREE) : (15)

- a) State and explain bernoulli's principle in streamline flow.
- b) What is hypermetropia? How it can be corrected.
- c) Define unit of length, mass and time
- d) Explain the physiological effect of heat

Q.5 Long Question on (ANY ONE): (15)

- a) Describe in detail the CT scan and the MRI with it's principle.
- b) State the Newton's law of gravitation. Show that $F = ma$, State its application.

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