

Seat No.: _____

No. of Printed Pages: 2

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SARDAR PATEL UNIVERSITY
M.Sc. (Pharmaceutical Chemistry) , First Semester Examination
Tuesday, 25th October 2016
10:00 am to 1:00 pm
PS01CPCH02: Natural Products

Total Marks: 70

- Note: (1) Figures to the right indicate marks.
(2) Draw a neat and labeled diagram, wherever necessary.

Q. 1 Choose the most appropriate answer from the four alternatives given:

[8]

- (1) One of the following is not an aldose
(a) Glucose (b) Galactose (c) Mannose (d) Fructose
- (2) The nitrogenous base present in lecithin
(a) Choline (b) Ethanolamine (c) Inositol (d) Serine
- (3) The imino acid found in protein structure : (a) lysine (b) Histidine (c) proline (d) arginine
- (4) Which of the following enzyme belongs to oxidoreductase class?
a) Alcohol dehydrogenase b) phosphor hexose isomerase c) hexokinase d) lipase
- (5) Which of the following type of DNA is left handed
(a) A DNA (b) B DNA (c) Z DNA (d) none of the above
- (6) Which of the following are purine
(a) adenine and Uracil (b) Adenine and Guanine (c) thymine and Uracil (d) none of the above
- (7) The nitrogenous base present in lecithin
(a) Choline (b) Ethanolamine (c) Inositol (d) Serine
- (8) Which one of the vitamin A functions as a steroid hormone
(a) Retinal (b) Retinol (c) Provitamin A (d) beta - Carotene

[14]

Q.2 Answer any SEVEN from the following:

- (1) Define Epimers
- (2) What is Mutarotation?
- (3) Define Essential fatty acids
- (4) What is Denaturation?
- (5) Write brief account on active site of enzyme.
- (6) Draw structure of tyrosine.
- (7) What is Chargaff's rule?
- (8) Draw structure of Uracil
- (9) Define Pernicious anemia

P.T.O.

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- Q.3 (a) Define and classify carbohydrates with suitable examples. Add a note on the functions of carbohydrates. [6]
- (b) Discuss the structure and functions of 2 biochemically important disaccharides [6]
- OR
- (b) Describe the structure and functions of phospholipids. [6]
- Q.4 (a) Discuss chemical properties of amino acid in detail [6]
- (b) Write brief account on factor affecting enzyme catalysed reaction [6]
- OR
- (b) Write note on enzyme inhibition in detail. [6]
- Q.5 (a) Write an account of the anterior pituitary hormones. [6]
- (b) Classify vitamins and briefly discuss their functions and deficiency disorders. [6]
- OR
- (b) Discuss biochemical functions of vitamin C. [6]
- Q.6 (a) Describe structure of DNA [6]
- (b) Write detail account on other types of DNA structure [6]
- OR
- (b) Describe structure of Nucleotides. [6]

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(2)