

Instruction :-

- * All questions are compulsory.
- * Figures to right indicate marks.
- * Draw diagrams wherever necessary.

- Q. 1 A) Answer in one sentence. (Any four) 8
- 1) Define Lipid.
 - 2) Give two examples of derived lipids.
 - 3) List the products obtained by hydrolysis of simple lipids.
 - 4) Give structure of sphingolipids.
 - 5) Write formula for obic acid using nomendature.
 - 6) What is indicated by acid value of lipid?
 - 7) Name the lipid involved in nerve tissue.
 - 8) List difference between saturated and unsaturated fatty acids.
- B) Answer the following in Brief. (Any 2) 6
- 1) Draw general structure of Triglyceride.
 - 2) Classify lipids with example.
 - 3) Give biochemical significance of compound lipids.
 - 4) Explain Steroids with example.
- C) Answer the following in detail. (Any 1) 6
- 1) What are simple lipids? Explain with two-example.
 - 2) Give functions of lipids.
- 2 A) Answer in one sentence. (Any 4) 8
- 1) What is nucleoside?
 - 2) List types of nucleotides found in RNA.
 - 3) Name the scientists who proposed the structure of DNA.
 - 4) Give width and length of DNA having 20 bp.
 - 5) What are the two Models suggested for structure of RNA.
 - 6) Name two types of bonds that makes double stranded hetical structure of DNA.
 - 7) What is electrical charge of DNA? Explain the group contributing towards it.
 - 8) The DNA shows maximum absorbance at which wavelength.
- B) Answer the following in Brief. (Any 2) 6
- 1) Give general structure of Pyrimidine.
 - 2) List the difference between purine and pyrimidines.
 - 3) Explain role of tRNA.
 - 4) What is tRNA and give its significance.
- C) Answer in detail. (Any one) 6
- 1) Draw and explain double helical structure of DNA.
 - 2) Write a note on three physical properties fo DNA.
- 3 A) Answer in one sentence. (Any 4) 8
- 1) What are proteins made up of?
 - 2) What method is used for measuring BMR?
 - 3) Define Joule.
 - 4) What is SI unit of heat?
 - 5) What is a calorie?
 - 6) Which vitamin is derived from sunlight?

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- 7) Which is an universal solvent?
- 8) What is the other name for niacin?

B) Answer the following in Brief. (Any 2)

- 1) How is BMR calculated? Explain its procedure?
- 2) Calculate BMI for your body weight. Comment on your health status.
- 3) Enlist five macro-minerals and five micro-minerals.
- 4) Short note on dietary management.

C) Answer in detail. (Any 1)

- 1) What is ideal nutrition and diet plan?
- 2) Explain specific dynamic action of foods.

Q. 4 1 A) Write Short note. (Any 1)

- 1) Iodine Number
- 2) Ceramides

1 B) Fill in the blanks. (Any 3)

- 1) _____ bond joins Glycerol to fatty acid. (phosphodiester bond / Peptrodo / Ester)
- 2) An alcohol chain with fatty acid is found in _____ (Triglyceride / Sterorcls / Waxes)
- 3) _____ is found only in Animals and Not in plants. (Saturated / unsaturated / oxidated)
- 4) If a fatty acid chain is removed from trigly uride and replaced by Carbohydrate it is called as _____. (phospholipid / Glycolipid / Lipoprotein)
- 5) The _____ of saturated fatty acid is zero. (Acid / Rancidity / Iodine value)
- 6) _____ lipids are Not a triglycerides or its derivatives. (Sample / Compound // Derived)

Q. 4 2 A) Write Short note on (Any 1)

- 1) Phosphodiester bond
- 2) Chargaff's rule

2 B) Fill in the blanks. (Any 3)

- 1) In DNA, the distance between range is _____. (0.34 A° / 3.4 A° / 34 A°)
- 2) _____ is found only in DNA and Not in RNA. (Uracil / Thymine / Cytosine)
- 3) The X-ray crystallographic structure was determined by _____. (JD Watson / F. Crick / R. Franklin)
- 4) In DNA, the decrease in temperature results in reformation of _____. (covalent bond / phosphodiester bond / Hydrogen bond)
- 5) The rRNA helps in _____. (Replication / Transcription / Translation)
- 6) The decrease in absorbance by double standard DNA is called as _____. (Hyperchronism / Hypochronism / Isochronism)

3 A) Write short note on : (Any 1)

- 1) Joule
- 2) Ideal nutrition

3 B) Fill in the blanks. (Any 3)

- 1) _____ is also called as retinol. (Vitamin B, Vitamin A, Vitamin C)
- 2) _____ acts as electrolyte. (Chlorine, Sulphur, Water)
- 3) _____ are rich in fibres. (Leaves, Fults, Flower)
- 4) Sitting Idle burns _____ Calories. (15, 0, 25)
- 5) 4.5 is a protein efficiency ratio for _____. (egg portein, whey protein, rice protein)
- 6) Ideal nutrition is _____ concern. (Everyone's, nobody's, few people's)

— The End —