

Q.P.CODE:150-NR

DR NTR UNIVERSITY OF HEALTH SCIENCES:: VIJAYAWADA
M.D. DEGREE EXAMINATION – **APRIL, 2018**

BIOCHEMISTRY

Paper-III : Hormones and Nutrition

Time: 3 Hours

Max. Marks:100

Note: Answer all questions

All questions carry equal marks

Draw neat diagrams wherever necessary

WRITE SHORT ESSAYS ON THE FOLLOWING:

- 1) What is basal metabolic rate (BMR)? What are the factors affecting BMR? What are the methods used to estimate BMR? What is the normal BMR of humans?
- 2) What is dietary fibre? What is the nutritional significance of dietary fibre?
- 3) What is the composition of bone and how bone metabolism is regulated? What are the markers of bone turnover?
- 4) Discuss the different mechanisms by which hormones exert their action in the body.
- 5) What are the functions of glycoproteins, proteoglycans, collagen and Elastin? Enumerate associated clinical disorders
- 6) What is the biochemical basis of different types of rickets? How to diagnose rickets.
- 7) What are the biochemical differences between Kwashiorkor and marasmus? How to diagnose protein energy malnutrition using lab investigations?
- 8) How to prescribe a balanced diet to a child suffering from energy malnutrition?
- 9) What are different types of cytoskeletal structures? What are their functions?
- 10) What are arachidonic acid metabolites? How they are synthesized? What are their functions?

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