M.Sc. 1st Semester Examination, 2019

CLINICAL NUTRITION AND DIETETICS

PAPER –CND-103

Full Marks : 40

Time : 2 hours

The figures in the right-hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

1. Answer any *four* questions : 2 × 4

(*a*) Differentiate nutraceuticals and pharmaceuticals.

(*b*) What is the function of suponinmention with its source ?

(*c*) Give the IUPAC definition of nanoparticle.

(*d*) Mention two applications of nanoparticle in the field of nutrition.

(*e*) What do you mean by food fortification ?

(*f*) Classify flavonoids.

(*g*) What are GMFs ?

(*h*) What is the role of protease inhibitor ?

2. Answer any *four* questions : 4 × 4

(*a*) Name the nanoparticles used in agricultural field. Mention two health hazards of any one nanoparticle. 3 + 1

(*b*) Discuss the prospects of using nano-technology for food preservation. 4

(*c*) How does nanotechnology reduce the food toxicity during preservation of fruit ? 4

(*d*) Enumerate any two techniques of nanoparticle development with diagram. 4

(*e*) State the fundamental techniques of GMF preparation. 4

(*f*) Write the features of plasmid. 4

(*g*) State the role of lycopene in oxidative stress management. 4

(*h*) "Nutraceuticals are efficient therapeutic agent" – Justify the statement. 4

3. Answer any *two* questions : 8 × 2

(*a*) How do you develop biological nanoparticle without using metal ? Discuss the role of curcumin based nanoparticle in limiting heavy metal or metalloid toxicity. 3 + 5

(*b*) Discuss the advantages and disadvantages of GM food. 4 + 4

(*c*) Describe the techniques of iron fortification in rice using the transgenesis. State ethical aspects of this study. 6 + 2

(*d*) Write the full form DADS. State the role of DADS on colo-rectal rectification by altering gene stability and gene expression. $1+(3\frac{1}{2}+3\frac{1}{2})$
