

**2018**

**M.Sc. 1st Seme. Examination**

**CLINICAL NUTRITION & DIETETICS**

**PAPER—CND-101**

*Full Marks : 40*

*Time : 2 Hours*

*The figures in the margin indicate full 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 : 4×2
- (a) Write the full forms of STAT & JAK.
  - (b) What do you mean by mobile model hormone receptor ?
  - (c) Write any one pro-apoptotic and any one anti-apoptotic marker.
  - (d) What do you mean by embryo and fetus ?

*(Turn Over)*

- (e) What is bisexual embryo ?
- (f) What are P-53 gene and src gene ?
- (g) What is phosphagen system ?
- (h) What do you mean by immuno-modulators ?

2. Answer any *four* questions : 4×4

- (a) (i) State the features of fixed model hormone receptor signal transduction process.
- (ii) What is TATA box ? 3+1
- (b) (i) Write the role of first class protein and calcium on somatic growth during puberty.
- (ii) What is growth sprout ? 3+1
- (c) (i) Write the role of hormones on reproductive growth during puberty.
- (ii) What is atherosclerosis ? 3+1
- (d) (i) State the role of protein on immuno-modulation.
- (ii) What do you mean by innate immunity ? 3+1

- (e) (i) What do you mean by protooncogene and oncogene ?  
(ii) What are the role of cyclin and CDK on cellcycle ?  
2+2
- (f) (i) State the difference between hyperplasia and hypertrophy.  
(ii) Define development. 2+2
- (g) (i) Write the full form of caspase.  
(ii) What is glycogen loading ? 1+3
- (h) (i) Write the change in body composition during puberty.  
(ii) What is the difference between endurance & performance ? 2+2
3. Answer any *two* questions : 2×8
- (a) (i) Describe the development of Zygote upto trilaminar embryo.  
(ii) How does bisexual embryo transform into unisexual embryo ? 4+4

- (b) (i) State oncogene and tumor suppressor gene interaction for cancer.
- (ii) Write the caspase cascade hypothesis for apoptosis. 4+4
- (c) What do you mean by ergogenic aids? Name few anabolic steroids with mentioning its side effects. What is blood doping? 2+2+4
- (d) Describe the role of antioxidant type of nutrients on sports performance. State the immediate and delayed energy source for a long time based sports event. 3+5
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