

**M. D. (BIOCHEMISTRY) : SUMMER - 2018**

**SUBJECT : BIOCHEMISTRY**  
**PAPER – IV : MOLECULAR BIOLOGY, BIOTECHNOLOGY, RECENT ADVANCES**  
**IN CLINICAL BIOCHEMISTRY**

Day : **Friday**  
Date : **08/06/2018**

**S-2018-3410**

Time : **2.00 P.M. TO 5.00 P.M**  
Max. Marks : 100

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**N. B. :**

- 1) **Q. No. 1 and Q. No. 2 are COMPULSORY.**
  - 2) Attempt **ANY SEVEN** questions from **Q. No. 3 and Q. No. 10.**
  - 3) Figures to the right indicate **FULL** marks.
  - 4) Draw neat and labelled diagram **WHEREVER** necessary.
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- Q. 1** What are free radicals and Reactive Oxygen Species (ROS)? Describe the damage produced by them. Highlight the various scavenging mechanisms. **(15)**
- Q. 2** Describe the biosynthesis of DNA. **(15)**
- Q. 3** Describe the biochemistry of cancer. **(10)**
- Q. 4** Cell cycle and its regulation. **(10)**
- Q. 5** Medical Bioinformatics **(10)**
- Q. 6** Role of Nucleic acids in diagnosis. **(10)**
- Q. 7** Regulation of gene expression in eukaryotes. **(10)**
- Q. 8** Give an account of isolation and purification of DNA. **(10)**
- Q. 9** Nitric oxide – A novel molecule. **(10)**
- Q.10** Types of RNAs and potential applications for therapy. **(10)**

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