

**2013**

**M.Sc.**

**4th Semester Examination**

**BIOCHEMISTRY**

**PAPER—BIC-402**

*Full Marks : 40*

*Time : 2 Hours*

*The figures in the right-hand margin indicate full marks.*

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

*Illustrate the answers wherever necessary.*

**Group — A**

1. Answer any *five* from the following : 5×2
- (a) How does Vipor Venom work in the living system?
  - (b) What is seasonal allergy?
  - (c) What is the use of 6-OH-Dopamine in neurology research?
  - (d) What are reactive nitrogen species? Why it is harmful?
  - (e) What are phase-II drug metabolizing enzymes?
  - (f) Define eustress and distress.
  - (g) What is genotoxic carcinogen?
  - (h) What is Huntington's chorea?

*(Turn Over)*

**Group — B**

Answer any *two* from the following :  $2 \times 5$

2. What are the features of Alzheimer's Disease? Mention in brief its cause and possible therapeutic management.  $2\frac{1}{2} + 2\frac{1}{2}$
3. How stress factors modulate immunity? 5
4. Mention antioxidative and pro-oxidative property of ascorbate. 5
5. Discuss on Phase-I drug metabolising enzymes. Why polycyclic aromatic hydrocarbons are harmful? 3+2

**Group — C**

Answer any *two* from the following :  $2 \times 10$

6. (i) What is Cotard Syndrome?  
(ii) What is the neurological basis of HIV-associated Dementia?  
(iii) How stress can generate hypertension?  $2+5+3$
7. (i) Define biotoxin. Mention their primary functions.  
(ii) What is biotransformation of xenobiotics?  $(2+4)+4$
8. (i) Define heat stress index.  
(ii) Briefly define immunogen, allergen, carcinogen. What are their mode of action?  $3+7$
9. (i) Discuss in brief about nanomedicine.  
(ii) Why porous silica are utilizable in biotechnological research work? Mention its advantage.  
(iii) What is nanofibres?  $4+4+2$