

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2018  
(First Semester)

Branch – ENVIRONMENTAL SCIENCE

ENVIRONMENTAL TOXICOLOGY

Time : Three Hours

Maximum : 75 Marks

Answer ALL questions  
ALL questions carry EQUAL marks (5 x 15 = 75)

- 1 a Explain the classification of toxic agents. (5)  
b Distinguish between local and systematic toxicity. (5)  
c Explain the four major types of antagonism with examples. (5)  
OR  
d Illustrate the individual and quantal dose-response relationship curves. (8)  
e Discuss the mechanism of different ways of molecular repair. (7)
- 2 a Define bioaccumulation. What are the factors influences on it? (7)  
b Give an account on biomagnification of DDT. (8)  
OR  
c Describe the various interaction of chemicals occurred in the body with examples. (15)
- 3 a What are the objectives of risk assessment? (4)  
b How to calculate the lifetime average daily dose of a toxicant? (5)  
c Discuss the significance of animal bioassays for hazard identification. (6)  
OR  
d Describe the different approaches of dose-response risk assessment. (15)
- 4 a Describe the sources, mobility and effects of organophosphorous pesticides with examples. (15)  
OR  
b What are the sources, transport and effects of PCBs and PAHs? Explain. (15)
- 5 a Explain the sources, bioavailability, transport and effects of Cd, As and Pb. (15)  
OR  
b Write a short note on :  
(i) Itai – itai disease (5)  
(ii) Keshan disease (5)  
(iii) Asbestors related lung diseases (5)

Z-Z-Z

END