

This question paper contains 3 printed pages.]

Your Roll No.

1787

B.Sc. (H) Computer Science / II Sem. A

Paper – 205 : (iii) LOGIC

(For Admissions of 2001 and onwards)

Time : 3 Hours

Maximum Marks : 75

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt All questions.

Parts of a question should be attempted together.

1. (a) Is it correct to say that 'a logician is interested only in those arguments whose premises and conclusion are true.' Discuss. 6
- (b) Explain the notion of logical form. 4

2. (a) State the difference between Lexical and Theoretical definition. 6
- (b) What do you understand by connotation and denotation of terms ? 4

3. Give the standard form and state the contrapositives of the following : 9
- (a) Only philosophers are wise.
- (b) A few scientists are politicians.
- (c) None but the girls are brave.
4. (a) Logic is defined as the 'Science of laws of thought.' Explain. 4
- (b) Find out which of the following are valid and state the fallacies occurring in the invalid syllogisms. 8
- AAA in fig I, II
- AEE in fig III, IV
5. (a) State the distinction between formal and informal fallacies. 6
- (b) Explain the fallacy of *petitio principii*. 4
6. (a) Prove the validity or invalidity by antilogism method. 6
- (i) AAA in fig III
- (ii) AII in fig I
- (b) What do you understand by fluidity of language ? 8

7. (a) If 'All men are mortal' is true then what can be inferred about the following : 6
- (i) Some men are not mortal
 - (ii) All non-mortal are men
 - (iii) Some mortals are men
- (b) State the contradictory of 2
- (i) All students are bright.
 - (ii) Some reptiles are dangerous.
- (c) State why from 'two negative premises no conclusion follows. 2
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