

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86
(For candidates admitted from the academic year 2008 – 2009 & thereafter)

SUBJECT CODE: SC/ME/LS64

B.A. DEGREE EXAMINATION, APRIL 2013
BRANCH III – SOCIOLOGY
SIXTH SEMESTER

COURSE : MAJOR – ELECTIVE
PAPER : LOGIC AND SCIENTIFIC METHODS
TIME : 3 HOURS

MAX. MARKS: 100

SECTION – A

ANSWER ALL QUESTIONS. EACH ANSWER NOT TO EXCEED 50
WORDS: (10 X 2 = 20)

1. Define Proposition.
2. What is a term?
3. Write any two valid moods of syllogism.
4. Explain – ‘Dilemma’.
5. Give any two symbols used in Symbolic Logic.
6. Write down the basic truth table for conjunction.
7. Draw the graphical symbol of NAND Gate.
8. Write the algebraic structure of AND operators.
9. Identify the missing number at the end of the series.
a) 3, 11, 19, 27, ?
10. Arrange the words given below in a meaningful sequence.
(a)Family (b) Community (c) Member (d) Locality (e) Country

SECTION – B

ANSWER ANY FIVE QUESTIONS. EACH ANSWER NOT TO EXCEED 300
WORDS: (5 X 8 = 40)

11. Write a short note on Traditional Classification of Propositions.
12. Draw and explain the square of Opposition.
13. Briefly explain the Fallacies of language.
14. Explain the Basic Truth Tables of all connectives.
15. If $P=F$, $Q=F$, $R=T$, find the validity of
 $[P \vee (Q \vee R)] . [\sim P \supset (\sim Q \supset R)]$

16. Draw and explain the OR Switching Circuit.
17. Write the algebraic structure and the basic truth table of XOR Gate.
18. What are the rules for valid disjunctive syllogism and what are the fallacies that arise with the violation of these rules?

SECTION – C

ANSWER ANY TWO QUESTIONS. EACH ANSWER NOT TO EXCEED 1200 WORDS: (2 X 20 = 40)

19. Explicate the Modern classifications of Proposition.
20. Explain the Rules and Fallacies of Categorical Syllogism.
21. What is a Dilemma and the types of dilemmas, illustrate with examples.
22. Explain the laws of commutation and duality with their truth tables.
