

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86
(For candidates admitted from the academic year 2011 – 2012 & thereafter)

SUBJECT CODE: 11SC/ME/LS63

B.A. DEGREE EXAMINATION, APRIL 2015
BRANCH III – SOCIOLOGY
SIXTH SEMESTER

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

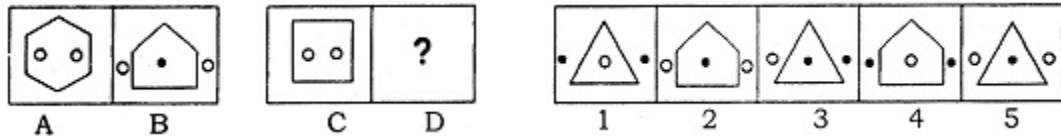
MAX. MARKS: 100

SECTION – A

ANSWER ALL QUESTIONS. EACH ANSWER NOT TO EXCEED 50 WORDS:

(10 X 2 = 20)

1. Define Logic.
2. What do you mean by major premises?
3. State any two valid moods of syllogism.
4. Define Fallacies.
5. Write the uses of symbols.
6. State the basic truth table for Implication.
7. Write the algebraic function of AND Gate.
8. State the algebraic structure of NOR operators.
9. Identify the missing figure



10. Arrange the words given below in a meaningful sequence.
(a) Retirement (b) appointment (c) advertisement (d) probation (e) interview

SECTION – B

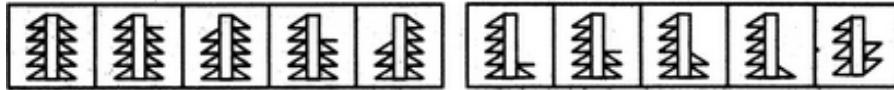
ANSWER ANY FIVE QUESTIONS. EACH ANSWER NOT TO EXCEED 300 WORDS:

(5 X 8 = 40)

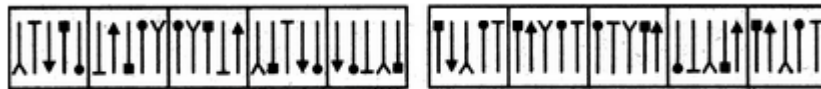
11. How Aristotle classified proposition.
12. What is square of Opposition? Explain.
13. Write the valid moods of Syllogism.
14. What is a compound Proposition? Explain.
15. If $A=F$, $B=F$, $C=T$, find the validity of
 $[A \vee (B \vee C)] \equiv [\sim A \supset (\sim B \supset C)]$
16. Draw and explain the AND Switching Circuit.

17. Write the algebraic structure and the basic truth table of XNOR Gate.

18. Select a figure from amongst the Answer Figures which will continue the same series as established by the five Problem Figures.



(A) (B) (C) (D) (E) (1) (2) (3) (4) (5)



(A) (B) (C) (D) (E) (1) (2) (3) (4) (5)

SECTION – C

ANSWER ANY TWO QUESTIONS. EACH ANSWER NOT TO EXCEED 1200 WORDS

(2 X 20 = 40)

19. How modern logician classified proposition?

20. Elucidate the Rules of Categorical Syllogism.

21. Find the validity of the given argument using Truth Table Method.

$$\{ [A \vee (B \cdot C)] \equiv [(A \vee B) \cdot (A \vee C)] \}$$

22. Arrange the words given below in a meaningful sequence.

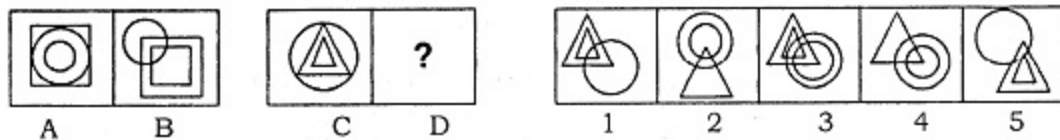
a)

yarn	Plant	Saree	Cotton	Cloth
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b) Subtract -40 from 80

c) Subtract 120 from 320

d)



e)

