(SYLLABUS AND MODEL QUESTION PAPER)

(A)   Syllabus

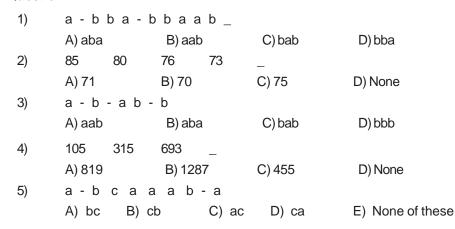|		
1.	(a) Series-Numeric and Alphabetic. (b) Logical Reasoning.	35%
2.	English- Synonyms, Antonyms, Identification of Grammatical Errors etc.	15%
3.	Arithmetic including Percentage, Interest, Profit and Loss, Time and Work, Height and Distance, Stock and Shares, Ratio and Proportion, Average, Fractions etc. AND Mathematics, covering Trignometry, Geometry, Algebra, Calculus, etc.	50%

(B)   SAMPLE QUESTION PAPER

SERIES (INVOLVING LOGIC)

Directions for questions 1-8 :

In each question below you will find a series either with integers or with two letters a and b and these are arranged following some pattern or rule. Try to understand the pattern or rule. There are some blank spaces in the series. Your task is to find out the missing integer or letter from the given alternatives and indicate your answer on the answer sheet.

Question :

1)   a - b b a - b b a a b _

    A) aba   B) aab   C) bab   D) bba

2)   85   80   76   73   _

    A) 71   B) 70   C) 75   D) None

3)   a - b - a b - b

    A) aab   B) aba   C) bab   D) bbb

4)   105   315   693   _

    A) 819   B) 1287   C) 455   D) None

5)   a - b c a a a b - a

    A) bc   B) cb   C) ac   D) ca   E) None of these

6)   a - a c a a b - a a
        A) ab   B) bc   C) ca   D) ac   E) None of these

7)   5 10 125 3 6 ---
        A) 81   B) 136   C) 25   D) 27   E) None of these

8)   1   49 9 -- 25 --
        A) 81, 125   B) 16, 136   C) 16, 35   D) 81, 121   E) None of these

MATHEMATICS

9)   The expression $ax^2 + bx + c$ has the same sign as of "a" if

        A) $b^2 - 4ac > 0$ B) $b^2 - 4ac = 0$ C) $b^2 - 4ac \leq 0$
        D) "b" and "c" have the same sign as "a"

10)   If a:b = c:d then which of the following is true ?

        I) bc = ad   II) $\dfrac{a+b}{b} = \dfrac{c+d}{d}$ III) $\dfrac{a+b}{a-b} = \dfrac{c+d}{c-d}$

        A) Only I and II are true but III is false.

        B) I and III are true but II is false.

        C) II and III are true but I is false.

        D) I, II and III are all true.

11)   In a business A, B & C invested Rs. 500/-, Rs. 225/- and Rs. 300/-
        respectively. If the profit earned is Rs. 410/- what will be the share of A?

        A) Rs. 200/-   B) Rs. 180/-   C) Rs. 120/-   D) None of these

12)   If the diameter of the circle is doubled, the area becomes

        A) Twice   B) Thrice   C) Four times   D) Eight times   E) None of these

REASONING

Directions for questions 13 & 14 :

Each of the following question is followed by two statements labelled by (a) and (b).
Use the data / information given in (a) and (b) to decide whether the data are sufficient
to answer the question. Record your answer as :

                (A) If only "a" is required.
                (B) If only "b" is required.
                (C) Either "a" or "b" will do.
                (D) Both "a" and "b" are required.
                (E) More information is needed.

13) Is Ram younger than Shyam ?

    (a) 15 years ago Shyam was 20 years old.
    (b) After 10 years Ram will be 30 years old.

14) Is ' X ' larger than ' Y' ? (' X ' and ' Y ' are integers)

    (a) $(X - 15)$ is larger than $(Y+7)$
    (b) $(X+1)^2 - (Y+2)^2$ is positive.

Directions for questions 15 & 16 :

In the following questions a pair of words is given followed by 4 additional pairs of words. Select the pair of words from among the four alternatives that best matches the relationship existing between first two words.

15) **HEREDITY : TRAINING**

    (A) Cultivated : Acquired   (B) Instinct : Habit
    (C) Natural : Hobby   (D) Excuse : Denial

16) **BUD : FLOWER**

    (A) Food : Stomach   (B) Baby : Adult
    (C) Fruit : Tree   (D) Sun : Sky

ENGLISH

Directions for questions 17 - 19 :

In each of the following questions, a word is given followed by four other words marked by A, B, C and D, one of which is nearest in meaning with the given word. Your task is to choose that word and indicate that on the answer sheet. If you do not find any correct answer then indicate "E" as your answer.

17) **INSIPID**
    A) Ominous   B) Chink   C) Prosy   D) Avocation

18) **CONTRITION**
    A) Indemnity   B) Compunction C) Resuscitation   D) Garniture

19) **SAGACIOUS**
    A) Multigenerous   B) Shackle   C) Secession   D) Exude

Directions for questions 20 - 22 :

In each of the following questions the alphabets of a word are prescribed in a disarranged way. Your task is to arrange them in proper order so that a meaningful word is formed and then indicate on the answer sheet the index of the alphabet that is put at the end.

20)   V   O   R   E   P
    (A)   (B)   (C)   (D)   (E)

21)   H   E   F   C   I
    (A)   (B)   (C)   (D)   (E)

22)   D   A   L   T   U
    (A)   (B)   (C)   (D)   (E)