



IPE MODEL :: MATHS-A(40 Marks)

SYLLABUS: Theory of Equations, Permutations : Upto Ex : 5.1 SAQ : 5

SECTION - A

I. VSAQ: Answer ALL of the following questions.

5 x 2 = 10 M

1. If $-1, 2, \alpha$ are the roots of $2x^3 + x^2 - 7x - 6 = 0$ then find α
2. Form the polynomial equation with rational coefficients and whose roots are $2 \pm \sqrt{3}, 1 \pm 2i$
3. Find the equation whose roots are negatives of the roots of the equation $x^4 + 5x^3 + 11x^2 + 3 = 0$
4. If ${}^n P_7 = 42 {}^n P_5$ then find n.
5. Find the number of ways of arranging 5 boys and 4 girls in a row so that the row begins with a boy and ends with a girl.

SECTION - B

II. SAQ: Answer any FOUR of the following questions.

4 x 4 = 16 M

6. Find the number of 4 letter words that can be formed using the letters of the word MIRACLE. How many of the i) begin with an vowel ii) begin and end with vowels iii) end with a consonant.
7. Show that the condition that the roots of $x^3 + 3px^2 + 3qx + r = 0$ may be in A.P is $2p^3 - 3pq + r = 0$.
8. Solve the equation $x^4 - 4x^2 + 8x + 35 = 0$ given that $2 + i\sqrt{3}$ is a root
9. If α, β, γ are the roots of $x^3 + px^2 + qx + r = 0$ then find the values of
i) $\alpha^2 + \beta^2 + \gamma^2$ ii) $\alpha^2\beta^2 + \beta^2\gamma^2 + \gamma^2\alpha^2$
10. Solve the reciprocal equation $4x^3 - 13x^2 - 13x + 4 = 0$

SECTION - C

III. LAQ: Answer any TWO of the following questions.

2 x 7 = 14 M

11. Find the equation whose roots are the translates of the roots of $x^4 - 5x^3 + 7x^2 - 17x + 11 = 0$ by -2.
12. Solve the equation $18x^3 + 81x^2 + 121x + 60 = 0$ one root being half the sum of the other two
13. Solve the reciprocal equation $x^5 - 5x^4 + 9x^3 - 9x^2 + 5x - 1 = 0$

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SRIGAYATRI EDUCATIONAL INSTITUTIONS

INDIA

SR MEC

Time: 1.30 Hours

IPE MODEL

Date:14-06-2020

Max. Marks: 50M

ECONOMICS

Syllabus: Views of Amartya Sen on human development, National Income, Poverty and Unemployment.

SECTION - A

I. VSAQ: Answer any FIVE of the following questions.

5 x 2 = 10 M

1. National Income.
2. Poverty gap.
3. Multidimensional Poverty Index.
4. Absolute poverty.
5. Disguised unemployment
6. Percapita Income.
7. Relative poverty.
8. Weekly status unemployment.

SECTION - B

II. SAQ: Answer any FOUR of the following questions.

4 x 5 = 20 M

9. Briefly examine the sectoral contribution to the National Income.
10. Examine the different types of unemployment.
11. Explain the views of Amartya sen on Human development.
12. Explain the remedial measures of poverty in India.
13. Analyze the different concepts of poverty.
14. Explain the consequences of the problem of unemployment.

SECTION - C

2x 10 = 20 M

III. LAQ: Answer any TWO of the following questions.

15. Examine the causes for poverty in India.
16. How to reduce inequalities in the distribution of Income and Wealth.
17. Analyze the causes for unemployment in India.

Paper Setters:

Subject	Name of the Paper Setter	Phone No	Branch
ECONOMICS	SIDDU	9985369712	HYD RKP1