



MATA JAI KAUR PUBLIC SCHOOL
HOLIDAYS HOMEWORK / CLASS – XI / HUMANITIES

ENGLISH

- Read the novel The Canterville Ghost by Oscar Wilde
- Revise The Ailing Planet: The Green Movement's Role, 'Father to Son', 'Tale of a Melon City' and Birth for your Annual Examination.

POLITICAL SCIENCE

Chapters Covered in given assignment are Ch 1-8 from the book Political Theory

Q1 What is the scope of political theory?

Q2 What are the different ideas associated to political theory?

Q3 Why constraints should be imposed on the freedom of people?

Q4 Give a short note on liberalism?

Q 5 Write a short note on Socialism?

Q 6 How does just distribution of resources help in achieving social justice in society?

Q 7 Mention some of the rights that are granted by the liberal democracies to it's citizens?

Q 8 Define Human Rights?

Q 9 Discuss the relation between rights and the state?

Q 10 Write a short note on any two struggles for full enjoyment of citizen rights which have taken place in India in recent years?

Q 11 Why did Martin Luther King Jr. start Civil Rights Movement in USA? What arguments did he give against Segregation Laws?

Q 12 How is a democracy more effective than authoritarian governments in dealing with conflicting nationalist aspirations?

Q 13 Write a note on shared cultural identity. Does it impose any threat to democracy?

Q 14 What is Theocratic state?

Q 15 Which two types of religious dominations are dealt via Secularism?

PSYCHOLOGY (CH8)

- Q1. What do you mean by Thinking? Elaborate the building blocks of thought?
- Q2. Mention the process involved in Thinking (tabular format)?
- Q3. Explain how Problem Solving leads to the process of Thinking?
- Q4. What are the obstacles to Problem Solving?
- Q5. What do you mean by Reasoning as a process of Thinking?
- Q6. Explain Decision making process of Thinking.
- Q7. What is Creative Thinking? State its Salient features.
- Q8. How does Divergent Thinking follow the process of Creative Thinking?
- Q9. What are the barriers of Creative Thinking?
10. How can we develop Creative Thinking?
- Q11. Elaborate the process of Creative Thinking.
- Q12. Suggest some strategies of Creative Thinking?

HISTORY

Complete History Project / Prepare for Viva

INFORMATICS PRACTICES

Consider the table given below.

Write Answer to (i). Write SQL queries for (ii) to (viii) and output for SQL queries (ix) and (x).

(Table: Salesperson)

SID	Name	Phone	DOB	Salary	Area
S101	Amit Kumar	98101789654	1967-01-23	67000.00	North
S102	Deepika Sharma	99104567834	1992-09-23	32000.00	South
S103	Vinay Srivastav	98101546789	1991-06-27	35000.00	North
S104	Kumar Mehta	88675345789	1967-10-16	40000.00	East
S105	Rashmi Kumar	98101567434	1972-09-20	50000.00	South

NOTE : Columns SID and DOB contain Sales Person Id and Data of Birth respectively.

Write the data types of SID and DOB columns.

Display names of Salespersons and their Salaries who have salaries in the range 30000.00 to 40000.00

To list names, phone numbers and DOB (Date of Birth) of Salespersons who were born before 1st November, 1992.

To display names and salaries of salespersons in descending order of salary.

To display areas in which Salespersons are working. Duplicate areas should not be displayed.

To display SID, Names along with Salaries increased by 500. (Increase of Rs.500 is only to be displayed and not to be updated in the table)

To display Area along with number of Salespersons working in that area.

To display Names of Salespersons who have the word 'Kumar' anywhere in their names.

SELECT Name, LENGTH(Name) FROM Salesperson;

PHYSICAL EDUCATION

CH- 9 Bio mechanics

CH- 10 Psychology and Sports

CH- 11 Training methods

Assignment is to be submitted on 15 Jan 2018

ECONOMICS

PROJECT WORK

Being an economics student you have been assigned to prepare a project on any one of the topics suggested by C.B.S.E.

The student in context of any project work are expected to use their own thought process based on their understanding of statistical methods.

PREPARE A PROJECT ON ANY ONE OF THE GIVEN TOPICS :--

- (I) Project report on consumer awareness among households with reference to electrical product like A.C. ,T.V. ,Refrigerator etc. using primary data which is to be collected through a survey on 10 households.
- (II) Project report on demographic structure of neighborhood [A survey on 10 families]
- (III) Project on changing prices of a few vegetables (6 - 8) in the market in past 2 weeks using primary data to study the effect of changing prices on the consumption pattern , do a survey of 10 households.

LAYOUT OF THE PROJECT FILE –

- (i) Introduction
- (ii) Acknowledgement
- (iii) List of contents
- (iv) Sample questionnaire
- (v) Research methodology (sample size ,methods adopted to collect data)

- (vi) Analysis & presentation of data
- (vii) Conclusion and inference .

NOTE : THE PROJECT SHOULD BE OF 15 TO 18 PAGES .

MATHEMATICS (PRACTICE PAPER)

GENERAL INSTRUCTIONS:

1. Q1 to Q7 are of 1 mark each. (Section A)
2. Q8 to Q19 are of 4 marks each. (Section B)
3. Q20 to Q26 are of 5 marks each. (Section C)
4. All Questions are compulsory.
5. Check that the question paper contains 3 printed sheets.

SECTION A

Q1 Write the set in roster form:

$$A = \{ x : x \text{ is a two-digit number such that sum of its digits is } 7 \}$$

Q2 Find the domain of the function

$$f(x) = \frac{x^2 + 3x + 5}{x^2 + 2x - 8}$$

Q3 Find the multiplicative inverse of $\sqrt{3} - 5i$

Q4 Show that the points (-2, 3, 5) (1, 2, 3) and (7, 0, -1) are collinear.

Q5 Find the ratio in which XY-plane divides the line segment formed by joining the points (-2, 4, -7) and (3, -5, 8)

Q6 Find the sum of 6 terms of the series 2, 6, 18,

Q7 The centroid of a ΔABC is at the point (1, 1, 1). If A is (3, -5, 7) and B is (-1, 7, -6) find point C.

SECTION B

Q8 (i) If $\lim_{x \rightarrow 3} \frac{x^n - 3^n}{x - 3} = 108$, find the positive integer n.

(ii) Find the derivative of $x^{-4}(3 - 4x^{-5})$

Q9 If $sA = \frac{-15}{17}$, $\sin B = \frac{-5}{13}$ where A & B both lie in third quadrant. Find the value of $\cos(A - B)$, $\sin(A + B)$

Q10 Prove that $n(n+1)(n+5)$ is a multiple of 3 by using the principle of mathematical induction for all $n \in \mathbb{N}$

Q11 Find the number of arrangements of the letters of the word INDEPENDENCE. In how many of these arrangements

- i. Do the words start with P
- ii. Do all the vowels always occur together
- iii. Do the vowels never occur together?

Q12 Find the equation of ellipse whose centre is at the origin, foci are (1, 0) and (-1, 0) and eccentricity is $\frac{1}{2}$

Q13 Find the direction in which a straight line must be drawn through the point (-1, 2) so that its point of intersection with the line $x + y = 4$ may be at a distance of 3 units from this point.

Q14 In the ΔABC with vertices A(2, 3) B(4, -1) and C(1, 2), find the equation and length of altitude from the vertex B.

Q15 Two students Anil and Ashima appeared in an examination. The probability that Anil will qualify the examination is 0.05 and that Ashima will qualify the examination is 0.10. The probability that both will qualify is 0.02. Find the probability that (i) both Anil and Ashima will not qualify the examination. (ii) atleast one of them will not qualify the examination.

Q16 A fair coin is tossed 4 times and a person wins Re1 for each head and loses Rs1.50 for each tail that turns up. Calculate how many different amounts of money you can have after 4 tosses and the probability of having each of these amounts.

Q17 If $y = \frac{(2x^3+3x^2-5)}{(3x+2)}$ find $\frac{dy}{dx}$

Q18 If the sum of first p terms of an A.P is equal to the sum of first q terms, then find the sum of the first (p + q) terms.

Q19 Draw the graph of the function $f: \mathbb{R} \rightarrow \mathbb{R}$ defined by $f(x) = [x]$ where $[x]$ stands for greatest integer function. Also find its domain and range.

SECTION C

Q20 Convert the complex number $\frac{-16}{1+i\sqrt{3}}$ into polar form.

Q21 In a survey of 100 persons it was found that 28 read magazine A, 30 read magazine B, 42 read magazine C, 8 read magazines A and B, 10 read magazines A and C, 5 read magazines B and C and 3 read all three. Find how many read none of the 3 magazines and also find how many read magazine C only?

Q22 Solve the system of inequalities graphically:

$$x - 2y \leq 3$$

$$3x + 4y \geq 12$$

$$x \geq 0, y \geq 1$$

Q23 Find the mean, variance and standard deviation using shortcut method.

Height in cms 70-75 75-80 80-85 85-90 90-95 95-100 100-105 105-110 110-115

No. of children 3 4 7 7 15 9 6 6 3

Q24 The second, third and fourth terms in the binomial expansion $(x + a)^n$ are 240, 720 and 1080 respectively. Find x, a and n.

Q25 (i) Solve: $\cos 3x + \cos x - \cos 2x = 0$

(ii) Prove that $2 \cos \frac{\pi}{13} \cos \frac{9\pi}{13} + \cos \frac{3\pi}{13} + \cos \frac{5\pi}{13} = 0$

Q26 A committee of 8 has to be formed from 9 men and 4 women. In how many ways can this be done when committee consists of :

- i. Exactly 3 women
- ii. Atleast 3 women