

CARMEL CONVENT HIGHER SECONDARY SCHOOL

HOLIDAY HOMEWORK

2022-2023

CLASS : XI

ENGLISH

1. Read the newspaper everyday and collect one good article/feature each related to the Elderly, Adventure , problems faced due to construction activities in Delhi-NCR , Environmental hazards and paste them in your registers.
2. Collect information related to King Tut and the Egyptian Civilization . Present it through Power Point (about 10-12 slides)
3. Write an article on 'Tourism and its future in India' in about 200 words.
4. Watch Ted talks related to the Elderly, People with disabilities and Environment and express your opinion on the same in about 100 words each
5. Learn all the syllabus of UII exams.

ECONOMICS

PROJECT WORK:-

Make a Project file as per the group division .

GROUP 1-- Project Report on Consumer Awareness among Households using Primary Data.

GROUP 2-- Project Report on Demographic Structure of a Neighborhood.

GROUP 3—Project on Changing Prices of a Few Vegetables in a Market Using Primary Data.

Revise your unit 2 syllabus and main the note book of the same.

BUSINESS STUDIES

PROJECT WORK:-

GROUP 1 – CONSUMER CO-OPERATIVE: Select a consumer co-operative society like Amul and study it as a business model. Also include the objectives and the organizational structure, details of surplus distribution.

GROUP 2—CLASSIFICATION OF INDUSTRY: Select a daily use, consumer product. Trace its Origin from the primary Industry through the secondary and tertiary Industries. Draw a flow chart to include the business activities in its path from the producer to the consumer.

EVS

(1). Make a project file on the topic “Water pollution”/ “Air Pollution”.

- Collect the data and record it in the given format:
 - A) Index
 - B) Acknowledgement
 - C) Introduction
 - D) Theory(Refer books and internet for this)
 - E) Questionnaire/ Case studies
 - F) Experience
 - G) Conclusion
 - H) Bibliography

(2). Prepare a herbarium of about 10 plants available in your locality. Each sheet should contain a printed label giving the following information on the lower right corner of each sheet.

- (A) Scientific name of plant
- (B) Common name of plant
- (C) Family
- (D) Locality from which it is collected
- (E) Date of collection
- (F) Name of collector

(3). Public all over the India is very much concerned about the deteriorating air quality in large parts of North India. Alarmed by this situation the Resident's Welfare Association of your locality organized an awareness programme entitled "Bury not burn". They invited you, being an EVS student to participate.

(A) How would you justify your arguments that promote burying and discourage burning?

(B) With the help of flowcharts, one for each practice (burying and burning), depict the chain of events that follow.

Do self study of the chapter "Population Ecology". Consult your text book for this chapter. Study material of this chapter will also be provided through the "Google Classroom". There will be a test on this chapter after the summer vacations.

MATHEMATICS

TOPIC : SETS

VERY SHORT ANSWER

1. If $A \in B$ and $B \subset C$, is it true that $A \subset C$? Justify your answer
2. Find sets A, B & C such that $A \cap B, B \cap C$ & $A \cap C$ are non empty sets but $A \cap B \cap C = \emptyset$
3. Find the cardinal number of the following sets i) $\{ \}$ ii) $\{1\}$ iii) $\{a, b, c\}$
4. Write the following sets as intervals i) $\{x: x \in \mathbb{R}, x > -2\}$ ii) $\{x: x \in \mathbb{R}, x > -3\}$
5. If $A = \{1, 3, 5\}$, write all proper subsets of A
6. Describe the following sets in roster form a) $\{x \in \mathbb{R} : x > 2\}$ b) $\{x \in \mathbb{R} : x < 2\}$
7. Describe the following sets in set-builder form a) $I = \{0, 3, 6, 9, 12, \dots\}$ b) $\{1, 4, 9, 16, \dots, 100\}$
8. Which of the following pairs of sets are equivalent: a) $\{2, 4, 6, 8\}$ and $\{a, b, c, d\}$ b) $\{x, y, z\}$ and $\{p, q, r\}$

s) c) The set of prime numbers less than 8 and the set of odd no. less than 10 d) The set of letters in the

word 'EXAMINATION' and set of letters in the word 'ASSASSINATION';

9. Let $A = \{1, 2, 3, 4, 5, 6\}$, $B = \{3, 4, 5, 6, 7, 8\}$ and $C = \{4, 5, 6, 7, 8, 9, 10\}$, find $(B - A) \cap (A - B)$ b) $B - C$

c) $A - C$ d) $C - A$ e) $(A - B)$ 10. If $A = \{1, 3, 5, 7, 9, 11\}$

a) Write the subset of A that contains all even numbers

b) Write the subset of A that contains all multiple of 3.

c) Write the subset of A that contains all no. less than 9. 1

SHORT ANSWER

11. If A, B and C are sets, prove that $A \subset B$, $B \subset C \Rightarrow A \subset C$

12. Two finite sets have m and k elements. If the total number of subsets of first set is 56 more than the

total number of subsets of second set, find m & k

13. Two finite sets have m & k elements. If the total number of subsets of first set is 56 more than the

number of subsets of the second set, find the values of m & k

14. In a school, there are 20 teachers who teach Maths or Physics. Of these, 12 teach Maths and 4 teach

Physics and Maths. How many teach Physics?

15. Write down all possible subset of each of the following sets: a) $\{0, 1\}$ b) $\{\diamond, \heartsuit\}$

16. Write down all possible proper subsets each of the following sets a) $\{1, 2, 3\}$ b) $\{1\}$

17. Let $\diamond = \{1, 2, 4, 5\}$, $\heartsuit = \{2, 3, 5, 6\}$, $\clubsuit = \{1, 2, 3, 5, 9\}$. Verify the following identities: a) $\diamond \cup (\heartsuit \cap \clubsuit) = (\diamond \cup \heartsuit) \cap \clubsuit$

$\diamond \cup \heartsuit) \cap (\heartsuit \cup \clubsuit)$

18. If $U = \{2,3,5,7,9\}$ is the universal set and $A = \{3,7\}$, $B = \{2,5,7,9\}$, then prove that a) $(A \cup B)' = A' \cap B'$

b) $(A \cap B)' = A' \cup B'$

19. For any two sets if A and B, prove that a) $A' \cup B = A \Rightarrow A \subset B$

b) $A' \subset B' \Rightarrow A \subset B$

LONG ANSWER

20. In a survey of 100 students, it was found that 28 watch action movies, 30 watch comedy movies, 42

watch news channels, 8 watch action and comedy movies, 10 watch action movies and news channels, 5

watch comedy and news channels and 3 watch all 3 types of programs. Find out how many i) Watch

News Channels only ii) Do not watch any of the three types of programs.

21. A & B are two sets such that $n(A - B) = 14 + x$, $n(B - A) = 3x$ & $n(A \cap B) = x$ If $n(A) = n(B)$, find

22. i) Value of x ii) $n(A \cup B)$

23. In a survey of 100 students regarding watching TV, it was found that 28 watch action movies, 30

watch comedy serials, 42 watch news channels, 8 watch action movies and comedy movies; 10 watch

action movies and news channels; 5 watch comedy serials and news channels and 3 watch all three types

of programs. Find out how many watch i) News channels only ii) How many do not watch any program

According to you, which TV program is useful and why?

24. In a class of 35 student 15 study Economics, 22 study Business studies and 14 study Advance

Accountancy. If 11 students both Economics and Business studies, 8 study Business studies and

Advanced Accountancy and 5 study Economics and Advanced Accountancy and if 3 if study all the three

subjects, find how many students of the class are not taking any of these subjects. 2

25. In a college there are 1600 students. Out of these 450 play hockey, 500 play cricket and 325 play

football. It is also known that 55 play both hockey and football. 40 play ball cricket and hockey and 51

play both football and cricket. If 54 students play all the three games. Find the number of students who

do not play at all.

26. In an examination, 80% students passed in mathematics, 72% passed in science and 13% failed in

both the subjects. If 312 students passed in both the subjects, find the total number of students who

appeared in the examination.

27. Of the member of three athletic teams in a certain school, 21 are on the basketball team, 26 in

hockey team and 29 in the football team. 14 play hockey and basketball, 15 play hockey and football, 12

play football and basketball and 8 play all the three games. How many members are there in all?

28. In the group 950 persons, 750 can speak Hindi and 460 can speak English. Find
a) How many can

speak both Hindi and English b) How many any can speak Hindi only c) How many can speak English only

TOPIC : RELATIONS AND FUNCTIONS

VERY SHORT ANSWER

1. In a relation $R = \{(0, 0), (2, 4), (-1, -2), (3, 6), (1, 2)\}$ i) Write domain of R ii) Write range of R iii) Write R

in the set builder f iv) Represent R by arrow diagram

2. If $R = \{(x, y) : x, y \in W, x^2 + y^2 = 25\}$ i) Find R in roster form ii) Write domain of R iii) Write range of R

3. Write domain of the function $f(x) = \frac{x^2 - 8x + 12}{x^2 - 2}$

4. If R is the set of all real numbers, what do the Cartesian products $R \times R$ and $R \times R \times R$ represent

5. If $A \times B = \{(0, 2), (3, -1), (4, 2), (0, -1), (3, 2), (4, -1)\}$ find $B \times A$

6. If A & B are two sets such that $n(A) = 5$ and $n(B) = 2$ If $(a, 1), (b, 5), (c, 5), (e, 1), (e, 5)$ are in $A \times B$, find A

and B

7. If $A = \{2, 3, 4\}$, $B = \{3, 5\}$, $C = \{2, 6\}$. Then verify that $C \cap (A \cap B) \cap C = (A \cap (B \cap C)) \cap (A \cap B) \cap C$

$= (A \cap (B \cap C)) \cap (A \cap B) \cap C = (A \cap B) \cap (A \cap C) \cap (A \cap B) = C \cap (A \cap B) \cap C$ 3. C $\{0, 3, 6\}$, write down the set of all ordered pairs (a, b) such

that $a + b = 5$ $\{ -1, 2, 3, 4, 5 \}$ and $b \leq 4$. If a

SHORT ANSWER

8. Write domain and range of $f(x) = \frac{1}{x^2 - 1}$

9. Find domain and range of the relation given by $R = \{(x, y) : y = x + 6, x \in \mathbb{N}, x < 6\}$

10. If $R = \{(x, y) : x, y \in W, x^2 + y^2 = 25\}$ i) Write R in roster form ii) Write domain and range of R

11. Is the given relation a function? Give reasons for your answer a) $h = \{(4,6), (3,9), (-11,6), (3,11)\}$ b)

$$h = \{(x, y) : x, y \in \mathbb{R}, x^2 + y^2 = 25\}$$

12. Given $R = \{(x, y) : x, y \in \mathbb{R}, x^2 + y^2 = 25\}$. Find the Domain and Range of R.

13. If $R = \{(x, y) : x, y \text{ are integers and } x^2 + y^2 = 64\}$ is a relation. Then Find $n(B)$. B are (a,

p), (b, q), (c, p). Write down the remaining \square

14. If $A = \{a, b, c\}$ and some elements, of $A \times B = 6$. \square B if $n(A \times \text{elements of } A) = \{0, 1, 2, 3, 4, 5\}$ \square

15. Find the domain and the range of the relation R defined by $R = \{(x + 1, x + 5) : x \in \mathbb{R}\}$

LONG ANSWER

16. Find domain and range for the following i) $f(x) = \sqrt{x-4}$ ii) $f(x) = 1 - \sqrt{9-x}$ iii) $f(x) = 3 - 2x + 1$ iv) $f(x) = 4 + 4 - x$ v) $f(x) = 1 - x^2 - 1$

17. Redefine the function which is given by $f(x) = |x-1| + |1+x|$, $-2 \leq x \leq 2$.

18. Find the domain of the function f given by $f(x) = 1 - \sqrt{[x]^2 - [x]} - 6$.

19. Find the domain of the function f Defined by $f(x) = 1 - \sqrt{|x-1|}$

20. Find the domain and range of the following functions : (i) $\{(x, 2x-9) : x \in \mathbb{R}\}$ \square $x \in \mathbb{R}$.

POLITICAL SCIENCE

1. Make a list of ARTICLES you come across in L. NO 1 to 6., Write their Number and what says.

For ex. -Article 370- - Gave special status to J&K

2. Write the NAMES of All the PRESIDENTS, VICE PRESIDENTS & PM of India in a chronological order.

3 CASE STUDY

1. MAKE AN INDEPTH STUDY OF UKRAINE-RUSSIA WAR.

- ITS CAUSES

-POST WAR AFFECTS OF WAR.

- RELEVANCE OF UNO

-ROLE OF NATO.

JUSTIFY YOUR STUDY WITH PICTURES, NEWSPAPER CUTTINGS, MAP WORK, REFERENCE WORK.....

PUBLIC ADMINISTRATION

1. MAKE A PPT ON ANY ONE OF THE FOLLOWING -

1. NEW PUBLIC ADMINISTRATION

2. CLASSICAL THEORY by HENRY FAYOL

3 HUMAN RELATION THEORY BY ELTON MAYO

4. SCIENTIFIC THEORY BY TAYLOR..

ACCOUNTANY

Prepare a project file on the following:-

1. Draw a Flow chart on the topic- Accounting Process.
2. Give the imaginary transactions data. (At least 20 transactions)
3. Collect and fill the various types of forms available at your nearby bank. (Paste them in the file)
4. Students to collect various source documents. (e.g. cash memos, bills, receipts etc.)
5. Define any 10 basic accounting terms and paste their pictures in the file.
6. Paste the financial statements of various companies taken from daily newspaper.
7. Find out the names of any five companies registered on a stock exchange. Monitor the prices of their shares for 15 working days.

Write their observation about changes in their price.

8. Make a Specific and Comprehensive Project Work based on Financial Transactions of any reputed company as per JKBOSE.

COMPUTER SCIENCE

Imagine yourself as a teacher and you want to teach C++ to your students.

Create a PowerPoint to teach “Getting started with C++” topic. Make them familiar with any online platform to practice c++ and keep ready below given sample programs for your students.

Practical:

1. Write a c++ program to calculate average of any 5 numbers.
2. Write a c++ program to solve $(a+b)^2$
3. Write a c++ program to calculate simple interest. $(S.I=P*R*T/100)$
4. Write a c++ program to swap two numbers using third variable
5. Write a c++ program to calculate perimeter, if the area of a square is 36

sq.cm.

6. Write a c++ program to calculate perimeter and area if the side of a square is 2.5 cm.
7. Write a c++ program to calculate area If the perimeter of a square is 24 cm.
8. Write a c++ program to calculate perimeter and area of the rectangle. if the length and breadth of a rectangle are 36 cm and 24 cm respectively.
9. Write a c++ program to calculate circumference and area if the radius of a circle is 3.5 cm.
10. Write a c++ program to calculate circumference if the area of a circle is 154 cm².

PHYSICAL EDUCATION

1. Read and write chapters no. 1 to 4 at home.
2. Practical, write down kabaddi and Kho-Kho games on your notebook with rules and regulations.
3. Project , write brief note on sports personality of your choice of India.
4. Play at home, atleast 30 minutes daily to stay healthy and f it.

ENJOY TO THE FULLEST