



ARMY PUBLIC SCHOOL BIRPUR
SUMMER VACATION
HOLIDAY HOMEWORK
SESSION: 2018-19
CLASS-11

SUBJECT-ENGLISH

1. **Literature** -Revise entire syllabus covered for Unit Test 1.
2. **Language**- Do the following in language Note Book:
 - a. Look up Five words every day from dictionary with meaning and frame sentences by using them in a thin notebook.
 - b. Write and define with example 20 Literary Devices in literature notebook.
 - c. Paste different types of Advertisements.
 - d. Draft Posters Of
 - i. Blood Donation Camp in your School.
 - ii. Tree Plantation **Drive** in your city
3. Use some or all of the following websites:
 - a) <http://www.bbc.co.uk/bitesize/ks2/english/>
 - b) http://www.english-hilfen.de/en/exercises_list/alle_grammar.htm

SUBJECT-HINDI

क.'अभिव्यक्ति एवं माध्यम' पुस्तक में से 1.जनसंचार माध्यम, 2.पत्रकारिता के विविध आयाम, 3.डायरी लिखने की कला , 4.कथा-पटकथा,5.कार्यालयी लेखन और प्रक्रिया 6.,स्ववृत्तलेखन और रोजगार संबंधी आवेदन पत्र ,7.शब्दकोश,संदर्भ ग्रंथों की उपयोगी विधि और परिचय पाठ पढ़ें एवं प्रत्येक में से 5 लघु प्रश्न-उत्तर तैयार करें।

ख.अपने पाठ्यक्रम के किसी कवि अथवा लेखक की पुस्तक पुस्तकालय से लेकर उस पर पुस्तक समीक्षा सजा कर बनाएं।

SUBJECT-MATHS

General Instructions:

- **Submit your work in the class notebook.**
 - **Present your work neatly.**
1. Draw the Venn diagrams to illustrate the following relationship among sets E, M and U, where E is the set of students studying English in a school, M is the set of students studying Mathematics in the same school, U is the set of all students in that school.

- (i) All the students who study Mathematics study English, but some students who study English do not study Mathematics.
- (ii) There is no student who studies both Mathematics and English.
- (iii) Some of the students study Mathematics but do not study English, some study English but do not study Mathematics, and some study both.
- (iv) Not all students study Mathematics, but every student studying English studies Mathematics.

2. From 50 students taking examinations in Mathematics, Physics and Chemistry, each of the student has passed in at least one of the subject, 37 passed Mathematics, 24 Physics and 43 Chemistry. At most 19 passed Mathematics and Physics, at most 29 Mathematics and Chemistry and at most 20 Physics and Chemistry. What is the largest possible number that could have passed all three examinations?

3. Two finite sets have m and n elements respectively. The total number of subsets of first set is 56 more than the total number of subsets of the second set. What are the values of m and n .

4. The set $(A \cup B \cup C) \cap (A \cap B' \cap C)' \cap C'$ is equal to
 (A) $B \cap C'$ (B) $A \cap C$ (C) $B \cup C'$ (D) $A \cap C'$.

5. Fill in the blanks in each of the following:

- a. The set $\{x \in \mathbf{R} : 1 \leq x < 2\}$ can be written as _____.
- b. When $A = \emptyset$, then number of elements in $P(A)$ is _____.
- c. If A and B are finite sets such that $A \subset B$, then $n(A \cup B) =$ _____.
- d. If A and B are any two sets, then $A - B$ is equal to _____.
- e. Power set of the set $A = \{1, 2\}$ is _____.
- f. Given the sets $A = \{1, 3, 5\}$, $B = \{2, 4, 6\}$ and $C = \{0, 2, 4, 6, 8\}$. Then the universal set of all the three sets A , B and C can be _____.
- g. If $U = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$, $A = \{1, 2, 3, 5\}$, $B = \{2, 4, 6, 7\}$ and $C = \{2, 3, 4, 8\}$. Then;
 (i) $(B \cup C)'$ is _____. (ii) $(C - A)'$ is _____.
- h. For all sets A and B , $A - (A \cap B)$ is equal to _____.

6. Match the following sets for all sets A , B and C

- | | |
|-----------------------------|--------------------------------------|
| (i) $((A' \cup B') - A)'$ | (a) $A - B$ |
| (ii) $[B' \cup (B' - A)]'$ | (b) A |
| (iii) $(A - B) - (B - C)$ | (c) B |
| (iv) $(A - B) \cap (C - B)$ | (d) $(A \times B) \cap (A \times C)$ |
| (v) $A \times (B \cap C)$ | (e) $(A \times B) \cup (A \times C)$ |
| (vi) $A \times (B \cup C)$ | (f) $(A \cap C) - B$ |

7. Let $A = \{1, 2, 3, 4\}$ and $B = \{5, 7, 9\}$. Determine

- (i) $A \times B$ (ii) $B \times A$ (iii) Is $A \times B = B \times A$? (iv) Is $n(A \times B) = n(B \times A)$?

8. Find x and y if: (i) $(4x + 3, y) = (3x + 5, -2)$ (ii) $(x - y, x + y) = (6, 10)$.

9. If $A = \{2, 4, 6, 9\}$ and $B = \{4, 6, 18, 27, 54\}$, $a \in A$, $b \in B$, find the set of ordered pairs such that 'a' factor of 'b' and $a < b$.

10. Find the domain and range of the relation R given by $R = \{(x, y) : y = x + \frac{6}{x}; \text{ where } x, y \in \mathbf{N} \text{ and } x < 6\}$.
11. Is the following relation a function? Justify your answer
- (i) $R_1 = \{(2, 3), (\frac{1}{2}, 0), (2, 7), (-4, 6)\}$
- (ii) $R_2 = \{(x, |x|) \mid x \text{ is a real number}\}$.
12. Find the domain for which the functions $f(x) = 2x^2 - 1$ and $g(x) = 1 - 3x$ are equal.
13. Find the domain of (i) $f(x) = \frac{x}{x^2 + 3x + 2}$. (ii) $f(x) = [x] + x$.
14. Find the range of (i) $\frac{|x-4|}{x-4}$ (ii) $\sqrt{16-x^2}$
15. Redefine the function which is given by $f(x) = |x-1| + |1+x|$; $-2 \leq x \leq 2$.
16. Find the domain of the function $f(x) = \frac{1}{\sqrt{[x]^2 - [x] - 6}}$
17. State True or False for the following statements:
- (i) The ordered pair (5, 2) belongs to the relation $R = \{(x, y) : y = x - 5, x, y \in \mathbf{Z}\}$
- (ii) If $P = \{1, 2\}$, then $P \times P \times P = \{(1, 1, 1), (2, 2, 2), (1, 2, 2), (2, 1, 1)\}$
- (iii). If $A = \{1, 2, 3\}$, $B = \{3, 4\}$ and $C = \{4, 5, 6\}$, then $(A \times B) \cup (A \times C) = \{(1, 3), (1, 4), (1, 5), (1, 6), (2, 3), (2, 4), (2, 5), (2, 6), (3, 3), (3, 4), (3, 5), (3, 6)\}$.
- (iv). If $(x-2, y+5) = (-2, \frac{1}{3})$ are two equal ordered pairs, then $x = 4, y = -\frac{14}{3}$
- (v). If $A \times B = \{(a, x), (a, y), (b, x), (b, y)\}$, then $A = \{a, b\}, B = \{x, y\}$.
18. Revise and remember all the formulas of trigonometric functions

SUBJECT-CHEMISTRY

1. Prepare investigatory project for Chemistry practical examination
2. Make a Question Bank of 10 questions each from chapters covered in the class
- 3.

SUBJECT: BIOLOGY

1. Do any investigatory project as per class XII syllabus.
2. Make a Question Bank of 10 questions each from chapter 1 to 4
3. Note: Questions should be other than the questions done in the class.
Note: Questions should be other than the questions done in the class. (To be done in the assignment copy)

SUBJECT: PHYSICS

1. Prepare investigatory project for physics practical examination.
2. Do exercise of chapter 2 (units and measurements) and chapter 9 (mechanical properties of solid) in fair notebook.
3. Solve previous year question papers related to the chapter 1st, 2nd and 9.

SUBJECT-HISTORY

1. Prepare a model on ONE of the following topics according to the groups allotted:
 - a. Evolution of Human being
 - b. Model of Mesopotamian Civilization
 - c. Working Model on Industries
 - d. Project File On Comparison between different Continents.
- 2 . Revise and make 10 questions each from all the covered chapters in a thin note book.
1marks= 3 questions, 3 marks=3 questions, 5 marks=4 questions (in a flow chart)
4. Solve assignments from www.cbse.nic.in

SUBJECT-PHY.EDUCATION

1. Revise and make 10 questions each from all the covered chapters in a thin note book.
2. Make one chart on yoga and lifestyle chapter.

SUBJECT -ACCOUNTS

1. Do HOTS& value based question of chapter 1 -Meaning & objective of accounting.
2. Do HOTS value based question of chapter 2 -Accounting principles.

SUBJECT-BUSINESS STUDIES

Make project on school enterprise- ANY PRODUCT, ANY SERVICE, ANY EXTRA CURRICULAR -ACTIVITIES (like singing, dancing, dramatics, painting etc.)

1. Do case studies of chapter 1- Nature & purpose of business.
2. Do case studies of chapter 2-Form of business organization.

SUBJECT -ECONOMICS

- 1:-Explain the problem of how to produce?
- 2:- Explain the problem of what to produce?
- 3:- Explain the problem of for whom to produce?
- 4:-Explain the concept of marginal opportunity cost with the help of an example.
- 5:-Production in an economy is below its potential due to unemployment. Government starts employment generation scheme. Explain its effect using PPC?
- 6:-What will be the impact of recently launched Clean India mission, on the production possibility curve of the economy and why?
- 7:-What will likely be the impact of large scale inflow of foreign capital in India on the PPC and why?
- 8:-What is likely to be the impact of Make in India appeal to the foreign investors by thePrime Minister of India on the PPC of India? Explain.
- 9:-What is likely to be the impact of efforts toward reducing unemployment on the production potential of the economy? Explain.
- 10:-Large number of technical training institutions has been started by the government. State its economic value in the context by PPF.
- 11:-Explain the features of production possibility curve.

STATISTICS

10. Numerical questions each of Mean, Mode and Median only discrete series and continuous series.

SUBJECT-COMPUTER

1. Write short note on the following:

- a) Keyword
- b) Identifiers
- c) Variable
- d) Data Type
- e) Java Virtual Machine and Byte Code

2. Write a program to make calculator which is capable of performing basic calculations.

3. Write a program to check whether the person is eligible to vote or not.

4. Write the difference between switch statement and else-if statement

5. Write a program to find the numbers when their sum and product is known. Take input from the user and use functions.

6. What will be the value of following, if $j=5$, $k=5$, and $l=2$ initially?

- i) $(5 * ==j) \% 6$
- ii) $(5 * j++) \% 6$
- iii) $K - 8 - --l$
- iv) $K = l = j++$

7. Write a statement that uses a conditional operator(ternary operator) to set grant to 25 if speed is more than 110, and to 0 otherwise.

8. What is the result of following expression? $Y = (t=4, t+3);$

9. What is the effect of absence of break in switch-case statement?

10. In a control structure switch-case, explain the purpose of using default.

11. Rewrite the following set of if-else statements in terms of switch – case statement.

- a)

```
if(code=='A')
    System.out.println("Accountant");
else if(code=='c' || code=='g')
    System.out.println("Grade IV");
else if(code=='f')
    System.out.println("Financial Advisor");
```

HAVE A WONDERFUL VACATION....

