



ST. ANGEL'S SCHOOL
SUMMER HOLIDAYS
HOMEWORK(2018-19)
CLASS XI

ENGLISH

Chapter :1 'The Portrait Of A Lady'

Q.1 → Khushwant Singh's grandmother was not pretty but was always beautiful. Explain the meaning of this statement.

Q.2 What image of the grandmother emerges from "The Portrait Of A Lady"?

Q.3 The grandmother herself was not formally educated but was serious about the author's education? How does the text support this?

CH-2 WE'RE NOT AFRAID TO DIE....

IF WE CAN ALL BE TOGETHER

Q.1 What impression do you form about the narrator on the basis of reading "We're Not Afraid To Die...If We Can All Be Together"?

Q.2 → 'Our optimistic attitude helps us to face extremely dangerous situations.' Discuss with reference to the story "we're not afraid to die...'

Chapter :1 'The Summer Of The Beautiful White Horse'

Q.1 Narrate the story "The Summer Of The Beautiful White Horse" in your own words?

Q.2 What impression do you form of cousin Mourad ?

CH-2 THE ADDRESS

Q.1 How did the narrator come to know about Mrs. Dorling and the address where she lived?

Q.2 Comment on the significance of the title of the story "The Address"

WRITING SKILLS

ARTICLE WRITING

Q.1 News items about brides burning due to demand of dowry disturb the readers.
Write an article on the evils of the dowry systems.

Q.2 Every year thousands of students fail to get admission in regular courses in colleges for generation. They have either to join the universities as external students or join the correspondence course.

Write an article in about 150-200 words on plight of students.

- LETTER TO THE EDITOR

Q.3 Your sister's gold chain was snatched while she was waiting for her bus. Two scooterists did all this in front of a lot of people waiting for their buses. Such incidents are common & happen everyday. Write a letter to the editor to make the authorities concerned aware of the lawlessness and offer certain suggestions. You are Bhawnik Mitra of East of Kailash, New Delhi.

Notice Writing

Q.1 You are Amit/Anita ,Headboy/Headgirl of your school .Write a notice for your school notice board requesting entries from students for Britannia Quiz contest to be held In your school.

Q.2 You are Sports Secretary of ABC School,Agra.Write a notice in not more than 50 words, asking the students interested in hockey to give their names for selection for your school hockey team .

SUBJECT TEACHER : _____

HOD: _____

MATHS

CHAPTER – 1 SETS

Q.1 State which of the following sets are finite?

(i) $A = \{x : x \in \mathbb{Z} \text{ and } x^2 - 5x + 6 = 0\}$

$B = \{x : x \in \mathbb{Z} \text{ and } x > -10\}$

Q.2 In a survey of 25 students, it was found that 15 had taken maths , 12 had taken physics and 11 had taken chemistry, 5 had taken maths and chemistry , 9 had taken maths and physics 4 had taken physics and chemistry and 3 had taken all the 3 subjects. Find the no. of students that had taken :

(i) only chemistry

(ii) only maths

(iii) only physics

(iv) physics and chemistry both but not maths

(v) maths and physics but not chem.

(vi) only one of the sub.

(vii) atleast one of the three sub.

(viii) none of the sub.

Q.3 In a survey of 700 students in a college ,180 were listed as drinking Limca , 275 as drinking Mirinda and 95 were listed as both drinking Limca as well as Mirinda. Find how many students were drinking neither Limca nor Mirinda

Q.4 Describe the following set in set builder form :

$$(1) A = \{ 1, \frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \dots \}$$

Q5) Let $A = \{a, b, \{c, d\}, e\}$. Which of the following statements are false & why?

- i) $\{c, d\} \subset A$
- ii) $\{c, d\} \in A$
- iii) $\{\{c, d\}\} \subset A$
- iv) $\{a, b, e\} \in A$
- v) $a \subset A$
- vi) $\{a, b, e\} \subset A$
- vii) $\{a, b, e\} \in A$
- viii) $\{a, b, c\} \subset A$
- ix) $\{\} \in A$
- x) $\{\} \subset A$

Q6) Let A & B be two sets, then

- i) $(A \cup B)' = A' \cap B'$
- ii) $(A \cap B)' = A' \cup B'$

Q7) Let A & B be two sets, Using properties of sets prove that

- i) $A \cap B' = \emptyset$ then $A \subset B$
- ii) $A' \cup B' = U$ then $A \subset B$

Q8) In a class of 35 students , 17 have taken Maths, 10 have taken maths but not Eco.. Find the no. of students who have taken both Maths & Eco and the no. of students who have taken Eco. , but not Maths , if it is given that each student has taken either Maths or Eco. Or Both.

Ch 2 Relations & Functions

Q.1 Given $A = \{1,2,3\}$, $B = \{3,4\}$, $C = \{4,5,6\}$

Find $(A \times B) \cap (B \times C)$

Q.2 Let R be the relation on set N of natural Numbers defined by

$R = \{ (a,b) ; a + 3b = 12, a \in N, b \in N \}$ Find

(1) ordered pairs of R (2) Domain of R (3) Range of R

Q.3 Let f be defined by $f(x) = x - 4$ and g be defined by

$$g(x) = \begin{cases} x^2 - 16, & x \neq -4 \\ x + 4 \\ \lambda, & x = -4 \end{cases}$$

Find λ such that $f(x) = g(x)$ for all x

Q.4 If f is a real function defined

$$f(x) = \frac{x-1}{x+1}, \quad \text{then prove that}$$

$$f(2x) = \frac{3f(x) + 1}{f(x) + 3}$$

Q.5 Find the domain and range of the following

Function

(1) $f(x) = \frac{x-2}{3-x}$

(2) $f(x) = \sqrt{16 - x^2}$

(3) $f(x) = \sqrt{x^2 - 49}$

(4) $f(x) = \frac{x}{1+x^2}$

Q.6 The function f is defined by

$$f(x) = \begin{cases} 1-x, & x < 0 \\ 1, & x = 0 \\ x+1, & x > 0 \end{cases}$$

Draw the graph of $f(x)$ _____

Q.7 If f, g, h are real function defined by $f(x) = \sqrt{x+1}$, $g(x) = 1/x$ and $h(x) = 2x^2 - 3$, then find the values of $(2f+g-h)(1)$

Q8) Find the domain & range of the real valued function

i) $f(x) = (4-x)/(x-4)$

ii) $f(x) = -|x|$

iii) $f(x) = \sqrt{9-x^2}$

iv) $f(x) = \sqrt{x-1}$

v) $f(x) = 1/(1-x^2)$

Q9) Define the following functions. Also, write their domain, range & draw the graph.

I) modulus function

II) Greatest Integer Function

III) Smallest Integer Function

IV) Reciprocal Function

Q10) If R is a relation on N the set of natural numbers, defined by,

$R = \{(x, y) : x+2y=9\}$. Write the relation R in roster form.

Q11) The relations f & g on the set R of real numbers are defined by,

$$f(x) = \begin{cases} x^2 & 0 \leq x \leq 4, \\ 4x & 4 \leq x \leq 15 \end{cases} \quad \text{and}$$

$$g(x) = \begin{cases} x^2 & 0 \leq x \leq 3 \\ 4x & 3 \leq x \leq 10 \end{cases}$$

Q12) Let $A = \{1, 2, 3, 4\}$, $B = \{1, 5, 9, 11, 15, 16\}$ and $f = \{(1, 5), (2, 9), (3, 1), (4, 5), (2, 11)\}$. Are the following true?

- a) F is a relation from A to B
- b) F is a function from A to B

CH-3 TRIGONOMETRIC FUNCTIONS

Q.1 Find in degrees and radian the angle between the hour hand and the minute hand of a clock at half past three

Q.2 Find the angle through which a pendulum swings if its length is 50 cm and the tip describes an arc of 16 cm

Q.3 If $\cos\theta + \sin\theta = \sqrt{2} \cos\theta$, prove $\cos\theta - \sin\theta = \sqrt{2} \sin\theta$

Q.4 If $\sin\theta = 3/5$, $\tan\phi = 1/2$ and $\pi/2 < \theta < \pi < \phi < 3\pi/2$, find the value of $8\tan\theta - \sqrt{5}\sec\phi$

Q.5 Find the value of

$$\cos(-480)$$

Q.6 Prove that $\sin^2 \frac{\pi}{18} + \sin^2 \frac{\pi}{9} + \sin^2 \frac{7\pi}{8} + \sin^2 \frac{4\pi}{9} = 2$

Q.7 Solve the following eq.

$$(1) \sin 2\theta + \sin 4\theta + \sin 6\theta = 0$$

$$(2) \tan \theta + \tan 2\theta + \tan \theta \tan 2\theta = 1$$

Q.8 Find the value of $\cot 22 \times \frac{1}{2}$

Q.9 If $\sin x = \frac{1}{4}$ find $\cos \frac{x}{2}$, $\sin \frac{x}{2}$ and $\tan \frac{x}{2}$ if $0 \leq x < 2\pi$ and x lie in 2nd quadrant

Q.10 Prove the following

$$(a) \sqrt{2} + \sqrt{2} + 2\cos 4\theta = 2\cos \theta$$

$$(b) \cos^2 A + \cos^2 (A+120) + \cos^2 (A-120) = \frac{3}{2}$$

$$(c) (1+\cos \frac{\pi}{8})(1+\cos \frac{3\pi}{8})(1+\cos \frac{5\pi}{8})(1+\cos \frac{7\pi}{8}) = \frac{1}{8}$$

Q11) In any triangle ABC, prove that

$$a \sin(B-C) + b \sin(C-A) + c \sin(A-B) = 0$$

Q12) A lamp post is situated at the middle point M of the side AC of a triangular plot ABC with BC = 7m, CA = 8 m & AB = 9 m. Lamp post subtends an angle 15° at the point B. Determine the height of the lamp post.

Q13) Find the angle between the minute hand of a clock and the hour when the time is 7.20.

Q14) Is it possible to have an equation $2 \sin^2 x - \cos x + 4 = 0$?

Q15) Show that $\sqrt{2 + \sqrt{2 + \sqrt{2 + 2 \cos 8x}}} = 2 \cos x$

Q1) Prove that $\sec 8x - 1 / (\sec 4x - 1) = \tan 8x / \tan 2x$

Q17) Find the general solution of the following equations.

$$a) 2 \sin^2 x - 3 \sin^2 x + 1 = 0$$

$$b) 4 \sin^2 x - 8 \cos x + 1 = 0$$

$$c) \sin^2 x - \cos 2x = \frac{5}{4}$$

$$d) 3(\sec x - 1) = \tan^2 x$$

SUBJECT TEACHER : _____

HOD: _____

PHYSICS

- Do back exercise of chapter 14,15 of N.C.E.R.T. and “RAY OPTICS”
- Do the following extra questions of chapter 14

1 marks questions

Q1:-Which of the following relationships between the acceleration ‘a’ and the displacement ‘x’ of a particle involve simple harmonic motion?

- (a) $a=0.7x$ (b) $a=-200x^2$
(c) $a = -10x$ (d) $a=100x^3$

Q2. Can a motion be periodic and not oscillatory?

Q3. Can a motion be periodic and not simple harmonic? If your answer is yes, give an example and if not, explain why?

Q4. A girl is swinging in the sitting position. How will the period of the swing change if she stands up?

Q5. The maximum velocity of a particle, executing S.H.M with amplitude of 7mm is 4.4 m/s. What is the period of oscillation?

Q6. Why the longitudinal wave are also called pressure waves?

Q7. How does the frequency of a tuning fork change, when the temperature is increased?

Q8. An organ pipe emits a fundamental note of a frequency 128Hz. On blowing into it more strongly it produces the first overtone of the frequency 384Hz. What is the type of pipe –Closed or Open?

Q9. All harmonic are overtones but all overtones are not harmonic.

Q10.What is the factor on which pitch of a sound depends?

(2 Marks questions)

Q1. At what points is the energy entirely kinetic and potential in S.H.M? What is the total distance travelled by a body executing S.H.M in a time equal to its time period, if its amplitude is A?

Q2. A simple pendulum consisting of an inextensible length ‘l’ and mass ‘m’ is oscillating in a stationary lift. The lift then accelerates upwards with a constant acceleration of 4.5 m/s^2 . Write expression for the time period of simple pendulum in two cases. Does the time period increase, decrease or remain the same, when lift is accelerated upwards?

Q3. Does the function $y = \sin 2\omega t$ represent a periodic or a S.H.M? What is period of motion?

Q4. All trigonometric functions are periodic, but only sine or cosine functions are used to define SHM. Why?

Q5. A simple Harmonic Motion is represented by $d^2x/dt^2 + \alpha x = 0$. What is its time period?

Q6. The Length of a simple pendulum executing SHM is increased by 2.1%. What is the percentage increase in the time period of the pendulum of increased length?

Q7. A simple Harmonic motion has an amplitude A and time period T. What is the time taken to travel from $x = A$ to $x = A/2$.

Q8. An incident wave is represented by $Y(x, t)=20\sin(2x-4t)$. Write the expression for reflected wave (i) From a rigid boundary

(ii) From an open boundary.

(3 Marks Questions)

Q1. The speed of longitudinal wave 'V' in a given medium of density ρ is given by the formula, use this formula to explain why the speed of sound in air.

- (a) is independent at pressure
- (b) increases with temperature and
- (c) increases with humidity

Q2. Write any three characteristics of stationary waves.

Q3. A spring of force constant 1200N/m is mounted horizontal table. A mass of 3Kg is attached to the free end of the spring, pulled sideways to a distance of 2.0cm and released.

- (i) What is the frequency of oscillation of the mass?
- (ii) What is the maximum acceleration of the mass?
- (iii) What is the maximum speed of the mass?

Q4. Which of the following function of time represent, (a) simple harmonic (b) periodic but not SHM and (c) non periodic ?

- (i) $\sin wt - \cos wt$ (ii) $\sin w3t$ (iii) $3\cos(90 - 2wt)$
- (iv) $\exp(-wt)$

(5 marks questions)

Q1. Discuss the formation of harmonics in a stretched string. Show that in case of a stretched string the first four harmonics are in the ratio 1:2:3:4.

Q2. For a travelling harmonic wave, (1) where x & y are in cm and t in second. What is the phase difference between oscillatory motions at two

$y = 2\cos(10t - 0.008x + 35)$ points separated by a distance of

- (i) 4cm (ii) 0.5m (iii) $\lambda/4$ (iv) $3\lambda/4$

SUBJECT TEACHER : _____

HOD: _____

CHEMISTRY

Unit-1 Some Basic Concepts of Chemistry

1. Why molality preferred over molarity in expressing the concentration of a solution?
2. Commercially available concentrated hydrochloric acid contains 38% HCl by mass.
 - a. What is the molarity of this solution? The density is 1.19g cm^{-3} .
 - b. What volume of concentrated HCl is required to make 1.00L of 0.10M HCl?
3. 2.38g of uranium was heated strongly in a current of air. The resulting oxide weighed 2.806g. Determine the empirical formula of the oxide.(atomic mass of U= 238,O=16).
4. In the commercial manufacture of nitric acid, How many moles of NO_2 produce 7.33 mole of HNO_3 in the reaction:
 - a. $3\text{NO}_2(\text{g}) + \text{H}_2\text{O}(\text{l}) \rightarrow 2\text{HNO}_3(\text{aq}) + \text{NO}(\text{g})$?
5. If 20.0g of CaCO_3 is treated with 20.0g of HCl, how many grams of CO_2 will be produced? Which will be limiting reagent? Calculate the mass of unreacted reagent left.

Unit-2 Structure of Atom

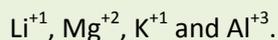
- 1.Heisenberg's uncertainty principle has no significance in everyday life. Explain?
- 2.What happens when an electron hits a zinc sulphide screen and what does it prove?
3. What will happen to the wavelength associated with a moving particle if its velocity is doubled?
- 4.Why the ball hit with hockey by a player does not make a wave?
5. At what distance is the radial probability maximum for 1s orbital? What is this distance called?
- 6.The ionization energy of He^+ is $8.72 \times 10^{-18} \text{J atom}^{-1}$. Calculate the energy of the first stationary state of Li^{+2} .
7. Calculate the wavelength associated with an electron moving with the velocity of 10^3msec^{-1} ($h=6.6 \times 10^{-34} \text{kg m}^2 \text{sec}^{-1}$).
- 8.If n is equal to 3, what are the values of quantum numbers l and m?
- 9.What are the total numbers of orbitals associated with the principle quantum number n=3?
10. Write down the electronic configurations of the elements with the following atomic numbers:

3,8,14,17,21,38,57

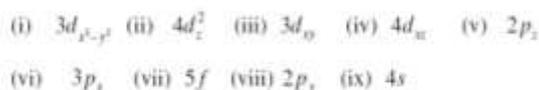
Also mention the groups of the periodic table to which they belong.

Unit-3 Classification of elements and periodicity in properties.

1. Electron gain enthalpy of noble gases is positive.Explain.
2. Name the element in the periodic table which have highest and lowest first ionization enthalpy.
3. Why is ionization enthalpy of Be is more than that of B? Explain.
4. Explain what do you understand by covalent radius, ionic radius, Vander waals radius and atomic radius.How do they vary in a period and in a group?
5. Arrange the following ions in order of their increasing ionic radii:



6. Write down the quantum numbers 'n', 'l' and 'm' for the following orbitals.



7. Which of the following orbitals are not possible?



Unit-4 Chemical bonding and molecular structure

1. Why KHF_2 exists while KClCl_2 does not?
2. Out of bonding and antibonding molecular orbitals which one has lower energy and which one has higher stability?
3. Why N_2 is more stable than O_2 ? Explain it on the basis of MOT.
4. Predict the dipole moment of a molecule of the type AX_4 with square planner arrangement of X atoms.
5. NaCl solution gives a white precipitate with AgNO_3 solution but CCl_4 or chloroform does not.Why?
6. Explain the term hybridization by taking the example of $\text{CH}_4, \text{PCl}_5, \text{SF}_6$ etc.
7. Boiling point of p-nitrophenol is more than O-nitrophenol why?
8. Indicate the type of bonds present in NH_4NO_3 and state the mode of hybridization of two N atoms in it.

SUBJECT TEACHER : _____

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BIOLOGY

CH -1 LIVING WORLD

- Q.1 What is the advantage of scientific names ?
- Q.2 Name the major groups into which Greeks scholars classified the animals?
- Q.3 Define family. Name two genera included in the family Solanaceae.
- Q.4 How is classical taxonomy different from modern taxonomy?
- Q.5 Explain Binomial Nomenclature?
- Q.6 Enumerate the distinctive characteristics that define living beings?
- Q.7 What are botanical gardens? Give two names of them in India.
- Q.8 What are zoological parks? What is the scientific purpose of them?
- Q.9 What are museums? How they are useful in taxonomic studies?
- Q.10 Differentiate between botanical gardens and museums.

CH - 2 BIOLOGICAL CLASSIFICATION

- Q.1 What are Archaeobacteria?
- Q.2 Mention three methods of locomotion seen among Protists with an example of each.
- Q.3 Differentiate between oospore and zoospore.
- Q.4 How are zygospores different from germ spores.
- Q.5 Differentiate between phototrophic and chemotrophic bacteria.
- Q.6 What is meant by 'Contagium vivum fluidum'? Who gave this idea?
- Q.7 What is diatomaceous earth? Mention any four uses of it.
- Q.8 How are viroids different from viruses?
- Q.9 Explain Euglena with well labeled diagram.
- Q.10 Mention four distinguishing features of Phylum Protozoa.

SUBJECT TEACHER : _____

HOD: _____

COMPUTER SCIENCE

LESSON – 1 [COMPUTER OVERVIEW]

- Q1. What are high level and low level languages?
- Q2. Differentiate between hardware, software and firmware.
- Q3. Write a note on language processors.
- Q4. Write a short note on artificial intelligence.

LESSON – 3 [DATA REPRESENTATION]

- 1. Convert 567_{10} to binary.
- 2. Convert $1011\ 0101_2$ to decimal.
- 3. Convert 110010111010010_2 to octal.
- 4. Convert 7423_8 to binary.
- 5. Convert 110010111010010_2 to hexadecimal.
- 6. Convert $8FE3_{16}$ to binary.
- 7. Convert 638_{10} to hexadecimal.
- 10. Convert -93_{10} to two's complement form using 8 bits to represent the result.
- 11. Convert 68_{10} to two's complement form using 8 bits to represent the result.
- 12. If $1100\ 1010_2$ is in two's complement form, what decimal number is represented?

LESSON – 6 [GETTING STARTED WITH C++]

- Q1. Why is main() special? What would happen if it is not present in the program?
- Q2. Write the importance of preprocessor directive.
- Q3. Write the importance of iostream.h.
- Q4. Rewrite the following program after removing the syntactical error(s) if any. Underline each correction.

```
#include (iostream.h)

void main()

{   a;l=20;

    cout<<\n"Enter breadth :"  


    a=l*b;

    cout<<"Area : ",a;
```

- Q5. Write a program to accept radius and print its circumference.
- Q6. Write a program to accept 3 integers and print their sum and average.
- Q7. What are different types of errors in a C++ program?

LESSON – 7 [DATA HANDLING]

- Q1. What are data types? What are all predefined data types in C++?
- Q2. Write advantages and disadvantages of floating-point numbers over integers?
- Q3. Why is char often treated as integer data type?
- Q4. What is a variable? How many values are associated with it?
- Q5. In how many ways can a variable be declared in C++?

Q6. Consider the following two C++ statements. Are they equivalent?

```
char g=66;           //statement 1
```

```
char g='B';         //statement 2
```

Q7. Rewrite the following program after removing the syntactical error(s) if any. Underline each correction.

```
#include <iostream.h>

void main()
{
    cout<<\n"Enter two numbers : "
    cin>>l,b;
    float a=l*b;
    cout<<"Area : ",a;
}
```

LESSON – 8 [OPERATORS & EXPRESSIONS IN C++]

Q1. What does modulus operator % do? What will be the result of 5.2 % 2.1 and 8 % 5?

Q2. Given that i=4, j=5, k=4, what will be the result of the following expressions?

(i) i < j (ii) i < k (iii) i <= k (iv) i > k (v) i == k (vi) i >= k (vii) i != k

Q3. Write the result of :

(i) cout <<(ans=8); (ii) cout <<(ans==8);

Q4. Write the order of evaluation of:

(i) a > b || b < d && b < c (ii) a > b || b < c && !d + 3

Q5. Write the result of the expression: a >= b && (a+b) > a

(i) a=3, b=0 (ii) a=5, b=5

Q6. Write the result of the expression: (!b)

(i) b=0

(ii) b=5

(iii) b=-5

Q7. Write the order of evaluation of: 4+5-7*3-7%2+4 && 4/3-1+4 || 2-4+6-2

Q8. What will be the result of the following expression, if : (i) a=3 (ii) a=6 (ii) a=8?

a>6?35:10

Q9. What will be the result of the following expression, if : (i) a=5, b=3 (ii) a=8,b=7?

a-(b<7?10:5)

Q10. Write an equivalent C++ expressions for the following expressions:

(i) $ut + \frac{1}{2} ft^2$

(ii) $\sqrt{(\sin a + \tan^{-1} a - e^2 x)}$

(iii) $|a| - b \geq |b| - a$

(iv) e^{2x-4x}

Q11. What is type conversion? Explain its types with example.

Q12. If a=20, b=5, then find the result of following :

(i) a+=b

(ii) a%=b

(iii) cout <<(5/2);

(iv) cout<<(5%2);

Q13. Evaluate the following expressions:

(i) (y) && (y-z) || !(2y+z-x) , if x=10, y=15, z=5

(ii) x-y < z || y + z > x && x-z <= y-x+z , if x=5, y=10, z=15

Q14. Rewrite the following statements after removing the syntactical error(s) if any. Underline each correction.

(i) a=2100 || v <5

(ii) a>7 && 90

(iii) b>=5000 || && v <500

(iv) r!=20 || !x>30

Q15. Evaluate the following expressions , if x=10, y=15, z=5 :

(i) a+ y/5

(ii) z*a+y

(iii) (x++) * y+ z

(iv) (++y) * y -x

(v) x- (y++) * (--x)

(vi) x%z

Q16. Write a program to read a alphabet and print in upper case.

NOTE: Make a separate **Practical File** for the following programs on **A4 size sheets**. Either directly copy the programs from TURBO C++ EDITOR or first copy them into notepad or word and then take printouts for the same. Pages must be filed in a transparent folder. Format of First two pages of the file must be same for all the students with only changed names and roll numbers of their own. Format of those pages are given at the end of this assignment.

(i) Make **Practical file with C++ programs** of following topics :

1. Write a C++ program to print your name on a clear screen
2. Write a C++ program to print a WELCOME message on the screen
3. Write a C++ program to Find Sum of three numbers.
4. Write a C++ program to print greater of two numbers using conditional operator.
5. Write a C++ program to Find area of a Circle
6. Write a C++ program to input three integers and print its largest values.
7. Write a C++ program to calculate average of three numbers
8. Write a C++ program to check given number is even or odd.
9. Write a C++ program to print Fibonacci series.
10. Write a C++ program to display days of a week using switch case.
11. Write a C++ program to find sum of n numbers.
12. Write a C++ program to swap two numbers.

SESSION : 2018-2019

**PRACTICAL FILE
OF
COMPUTER SCIENCE
CLASS XI- B**

UNDER THE SUPERVISION OF

Ms. SONIKA DOGRA

SUBMITTED BY

(name of the student)

(roll number of student)

St. ANGEL'S SCHOOL

SECTOR-15, A BLOCK

ROHINI DELHI-110085

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SUBJECT TEACHER : _____

HOD: _____

BUSINESS STUDIES

CHAPTER – 1

- Ques.1 Mr. Bhuvan is a Chartered Accountant in a Multinational Company. He gets Rs. 85,000 per month as his salary. On weekends, Mr. Bhuvan goes to nearby village and teaches some slum children, he does not charge anything from them, he does it out of sympathy and concern for poor children. This gives him mental and psychological satisfaction.
- Working as a CA in a MNC refers to which type of human activity?
 - Teaching students in slum is which type of human activity?
 - Identify the values followed by Bhuvan.
- Ques.2 Explain the role of profits in business.
- Ques.3 Identify and explain the following:
- The services which helps in removing the hindrance of place.
 - The services which helps in removing the hindrance of time.
 - The services which helps in removing the hindrance of risk
- Ques.4 Give an example of an activity which is economic in one sense and non economic in other sense.
- Ques.5 Differentiate between Business, Profession and Employment on the basis of following points:
- Qualification
 - Transfer of interest
 - Nature of work
- Ques.6 Name and explain the following:
- The economic activity showing a risk element and carried on for profit.
 - The trade in which two or more countries are involved.
 - The industry which involves breeding and reproduction of plants and animals.

CHAPTER – 2

- Ques.1 “One man control is the best in the world.” Identify the form of business organization and explain its merits and demerits.
- Ques.2 What are the privileges of a private company? Explain any three.
- Ques.3 Distinguish between a private and a public company.
- Ques.4 All the members of a company sitting in a general meeting were killed by a bomb. Was the company wound up?
- Ques.5 Which certificate is called the birth certificate of company?
- Ques.6 Name the type of partner:
- A person who lend his name and goodwill for the benefit of partnership firm.
 - A person who contributes capital but does not take part in the business of firm.
 - A partner who contributes capital, participates in the business but whose identity is not disclosed to outsiders.
- Ques.7 Explain briefly the stages in the formation of public company.
- Ques.8 “A promoter is called the parent of the company”. Do you agree? explain the steps taken by promoters in the promotion of a company .
- Ques.9 Differentiate between memorandum of association and article of association.

CHAPTER – 3

- Ques.1 Name the organization which is considered as a part of government only.
- Ques.2 Explain the merits and demerits of Departmental Undertaking?

SUBJECT TEACHER : _____

HOD: _____

ACCOUNTANCY

Introduction to Accounting

Q.1 Name the branch of commerce ,which keeps a record of monetary transactions in a set of books?

Q.2 Define Accounting and explain its advantages?

Q.3 Why the following parties are interested in accounting information?

(a)Investors (b) Government (c)Creditors

Q.4 Accounting provides information about the profitability and financial soundness of a concern. In addition, it provides various other valuable information also. However, Accounting has certain limitations, Explain any three such limitations.

Basic Accounting terms

Q1)Explain the following terms with example:

(i) Revenue from operations

(ii) Drawings

(iii) Business transaction

(iv) Non-current assets

(v) Capital expenditure

(vi) Current liabilities

Theory base of Accounting,Accounting standards& IFRS

Q1) Which accounting principle requires that financial statements should be prepared at regular interval say annually?

Q2) “ Anticipate no profit and provide for all possible losses” arises due to which principle?

Q3) ABC Ltd purchased a machinery for Rs. 1,70,000 for the business. In the books, such machinery will be recorded in the books at Rs. 1,70,000 throughout its life irrespective of its market value. Any subsequent increase or decrease in the market value of the machinery should not be recorded in the books of accounts ? Identify the accounting principle referred here.

Q4) PQR Ltd appointed a sales girl Riya. She is smart and impressive. Though her personality can have great positive influence on the business ,but her smartness cannot be measured in terms of money.

i)Which accounting principle is being highlighted above

ii) Explain in brief the limitation of the principle being referred above..

Q5) Explain the following With example:-

- I. Dual Aspect
- II. matching principle
- III. Going concern Assumption

Accounting Equation

Q.1) Give two examples of two items:

- (i) increase in assets, increase in liability
- (ii) decrease in liability, decrease in assets

Q2) Ram started business with capital of Rs. 75,000. On 1st April 2015, during the year he withdrew Rs. 20,000 for private use and introduce fresh capital of Rs. 10,000. Calculate its capital on 31st march 2016, if he earned a profit of Rs. 12,000 during the year.

Q.3) Ram started business on 1st april, 2014 with a capital of 25,000 and a loan of 12,500. On 31st march , 2015 his assets were 50,000. Find his capital on 31st march, 2015 and profits ending during the year ?

Q4). Show the accounting equation on the basis of the following transactions and prepare Balance Sheet:

i commenced business with cash	1,40,000
ii purchased goods on credit	28,000
iii withdrew for private use	3,400
iv goods purchased for cash	20,000
v paid wages	600
vi paid to creditors	20,000
vii sold goods on credit for	30,000
viii sold goods for cash(cost price was Rs 6000)	8,000
ix purchased furniture for	1,000

Journal & ledger

Q1) Distinguish between cash discount and trade discount?

Q2) Journalise the following transactions in the books of Harpreet Bros.

- a) Rs 1000 due from Rohit are now bad debts
- b) Goods worth Rs 2000 were used by the proprietor.
- c) Charge depreciation @ 10% p.a for two months on machine costing Rs 30,000.
- d) Provide interest on capital of Rs 1,50,00 at 6 % p.a for 9 months.
- e) Rahul became insolvent , who owed Rs 2000 a final dividend of 60 paise in a rupee is received.

Q3) Journalise the following transaction & prepare the necessary Ledger accounts. :-

- (a) Good destroyed by fire for Rs 500
- (b) Paid Rs 2500 in cash as wages on installation of a machinery
- (c) Issued a cheque in favour of M/s. parmatma saran & sons on the account of purchase of goods Rs 7500
- (d) Sold goods to X on list price Rs. 5,000 , Trade discount@ 5% & Cash discount @ 2%, he Paid the amount on the same day & avail the cash discount.

Q4) Journalise the following transaction & prepare the necessary ledger accounts.

Jan 1. Ajit commenced business with capital of Rs 10,000

Mar 18 Received a cheque from premnath & co. for Rs 300 and

allowed him discount of Rs. 10

Jul 15 Sold old machinery to lall chand.of Rs. 2,500

Oct.21 Cash sales of Rs. 550

Cash purchases of Rs. 215

Dec 31 Rent due to landlord is Rs.150

Q5) The following balances appear in books of Harish on 1st April 2015:

Assets: Cash Rs.30,000; Stock Rs. 45,900; debtors Rs. 20,980; Computers Rs. 89,000, Machinery Rs. 12,900

Liabilities: creditors Rs. 45,000; bills payable Rs. 34,000

Journalise in the books of Harish.

Rules of Debit & credit

Q1) Write the rules of Debit & credit based on traditional approach.

Q2) Classify the following accounts according to Modern Approach :

- i) Drawings Account
- ii) Sales Account
- iii) Cash Account
- iv) Commission Paid Account
- v) Interest Received Account

SUBJECT TEACHER : _____

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ECONOMICS

To prepare a project.

The students may be encouraged to develop project, as per the suggested project guidelines. Case studies of a few organisations / outlets may also be encouraged. Under this the students will do only ONE comprehensive project using concepts from both part A and part B. Some of the examples of the projects are as follows (they are not mandatory but suggestive).

- (i) A report on demographic structure of your neighborhood.
- (ii) Changing consumer awareness amongst households.
- (iii) Dissemination of price information for growers and its impact on consumers.
- (iv) Study of a cooperative institution: milk cooperatives, marketing cooperatives, etc.
- (v) Case studies on public private partnership, outsourcing and outward Foreign Direct Investment.
- (vi) Global warming.
- (vii) Designing eco-friendly projects applicable in school such as paper and water recycle.

SUBJECT TEACHER : _____

HOD: _____

INFORMATICS

PRACTICES

Chapter-1 (Hardware concepts)

Q1. Explain the concept of biometric sensors. What are the latest biometric sensors? Name them.

Q2. Explain the working of central processing unit.

Q3. Explain different types of communication bus.

Q4. Why it is necessary to use ROM in a computer?

Q5. Which are the different types of monitor technologies?

Chapter-8 (Introduction to MySQL)

Q1. What is the significance of DBMS?

Q2. Explain all the three type of databases architecture.

Q3. Explain the keys.

Q4. Differentiate between DDL and DML commands.

Chapter-9 (MySQL)

Q1. Create a table for employee entering their ID's, Names, Department, Address and Salary.

Q2. Explain the concept of NULL.

Q3. What is the difference in the output of SELECT statement if we write the keyword ALL in place of DISTINCT?

Q4. What is the purpose of o\ "ORDER BY" clause?

Q5. Write the following queries:

ITEM

I_NO	I_NAME	I_PRICE	I_LOCATION
I101	Coat	5000	Rohini
I102	Shirt	2000	Pitampura
I103	Tie	599	Rajourie
I104	Trouser	2999	Rohini
I105	Belt	799	Pitampura
I106	Cuffs	999	Pitampura
I107	Broach	1999	Rohini

- Display the names of items which are available in Pitampura store.
- Display the names and prices of all those items which are above 2999.
- Select the prices of all items which are available in Rohini and Rajourie store.

Q6. Write the output of the following queries:

- Select I_NAME from Item;
- Select I_NO from Item where I_no>I103;
- Select all from Item;

NOTE: Make a separate **Practical File** for the following queries on **A4 size sheets**. Either directly copy the commands from MYSQL or first copy them into notepad or word and then take printouts for the same. Pages must be filed in a transparent folder. Format of First two pages of the file must be same for all the students with only changed names and roll numbers of their own. Format of those pages are given at the end of this assignment.

- WAQ (write a query) to create a database named library.
- WAQ to create a table in above database 'library' named "Informatics_Practices" with column names - ISBN , NAME_OF_BOOK, AUTHOR NAME, NO_OF_PAGES.
- WAQ to insert atleast 5 records of your choice in above table "informatics_practices".
- WAQ to retrieve all columns of above table.
- WAQ to add a new field/attribute named "price" in above table.
- WAQ to change size of previously made field "NO_OF_PAGES" from 20 to 40.
- WAQ to show use of UPDATE command in above table.
- WAQ to show price increased by 50 for all books with an ALIAS "new price" in above table.

9. Write SQL commands for the queries for the table/relation “SHOP” shown below:

NO	SHOP_NAME	SALE	AREA	CUST%	RATING	CITY
1	S.M. SONS	250000	WEST	68.5	C	DELHI
2	KIRTI	500000	SOUTH	81.5	A	MUMBAI
3	RIPPLE	300000	NORTH	78.5	B	KOLKATA
4	BEST STORES	450000	EAST	98.5	B	DELHI
5	CRYSTAL	550000	WEST	67.5	A	KOLKATA

- Show the names of all shops which are in the **South** area and cust-percent < 75
- To display number of shops in each city.
- To display list of all the shops with sale > 300000 in ascending order of Shop_Name.
- To display Shop_name,Area and Rating for only thos shops whose sale is between 350000 and 400000 (including both 350000 and 400000).
- To count the no. shops whose rating is A

SESSION 2018-19
PRACTICAL FILE
OF
INFORMATICS PRACTICES
CLASS XI-D
UNDER THE SUPERVISION OF
Mrs. POONAM PAWAR

SUBMITTED BY

(name of the student)

(roll number of student)

St. ANGEL'S SCHOOL

SECTOR-15, A BLOCK

ROHINI DELHI-110085

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SUBJECT TEACHER : _____

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PSYCHOLOGY

Note:

- Project file can be a spiral folder with one sided line sheets. It should be 25-30 pages.
- Creativity and dedication are important aspects.

Chapter 1 what is Psychology?

1. Choose an interesting person (eminent Psychologist like: Sigmund Freud, Binet Simon, B. F. Skinner and so on). Write a paper about him considering following element:

- a) Biography
- b) Professional History
- c) Theories/ Influence on psychology

You can paste photograph and other relevant images according to the requirement of the topic.

2. Make figure 1.1 (NCRET) on psychology and other disciplines. Research on each discipline and write a short note on each.

Chapter 2 Methods of Enquiry in Psychology

4. Dr. Krishnan is going to observe and record children's play behaviour at a nursery school without attempting to influence or control the behaviour. Which method of research is involved? Explain the process and discuss its merits and demerits.
5. Define the difference between Quantitative and Qualitative Method of research.
6. According to you what are the limitations of Psychological enquiry?
7. What are role of ethical issues in psychological research?

Chapter 9 Motivation and Emotion

8. What is the basic idea behind Maslow's hierarchy of needs? Explain with suitable examples.
9. Why is it important to manage negative emotions? Suggest ways to manage negative emotions.
10. Explain each concept with examples-
 - Need for Achievement
 - Need for Affiliation
 - Need for Power
 - Define Physiology of Emotion

SUBJECT TEACHER : _____

HOD: _____

PHYSICAL EDUCATION

Chapters: 1.yoga

- Make a Practical File with following headings:

GAME - any one- Football, volleyball, Basket ball, Handball, Kho-Kho , Hockey

Chapters: 1.yoga

Q1. Patanjali had included 'Yama' and 'Niyama' as element of yoga. Are we not going away from such objectives? Discuss.

Q2. Hypertension or high blood pressure is a modern disease. Which biological, mental, social and environmental factors influence in the occurrence of this disease?

Q3. Make a list of the asana recommended for prevention of back pain or obesity.

Q4. Write a short note on the importance of yoga in our lives.

GENERAL STUDIES

CHAPTERS COVERED

CHAPTER – 1 - Dimensions of Environment

CHAPTER – 4 Human activity and Degradation of Environment

CHAPTER – 5 Economic and Social Aspect of Development

CHAPTER – 8 Role of Society in Development

Do all the objective type questions and back exercise in note book.