Chapter : Computer Overview

1. What is data? What is the output of data processing system?
2. What is the function of memory? What are its measuring units?
3. What are the differences between hardware, software and firmware?
4. How is compiler different from interpreter?
5. Name the super computers developed in India.
6. What are the major strengths and weaknesses of computer?
7. Define and distinguish between Data and Information.
8. Distinguish between CPU and ALU.
9. What is a Byte? What is Binary code?
10. Give Full forms of the following. (Can take help from Internet for this only)

(i)ENIAC (ii) EDVAC

(iii)EDSAC (iv) UNIVAC

.....

GDGPS

Summer Holiday Home Work (2018-19)

Class: XI

Subject: Economics

Sandeep Garg's Micro Economics Book:-
UNIT: **Introduction**
From Page No. 1.37 to Page No. 1.39 (Q.No.1 to Q.No.27)

&

Unsolved Practicals (Q.No.1 to Q.No.6)

ENGLISH

SUMMER HOLIDAY HOMEWORK

CLASS-XI

Reading Project – Term – 1

Good readers are critical readers with an ability to arrive at a deeper understanding of not only the world presented in the book but also of the real world around them.

Reading does not mean reading for leisure only but also for information, analysis and synthesis knowledge.

Write a book review on A4 size sheets on any **one** of the following books:

1. I am Malala- Malala Yousafzai
2. The Time Machine- H. G. Wells
3. Ignited Minds- Dr.A.P.J. Abdul Kalam
4. The Secret- Rhonda Byrne
5. The White Tiger- AravindAdiga
6. Shiva Trilogy- Amish Tripathi

The Book review should include critical evaluation of the plot, storyline and characters, the book's impact on your thought process and opinions.

The Book review should be written in about 3-5 pages. Original inputs will be marked out of 10 for the 1st Term assessments.

Term/2018-19

G. D. Goenka Public School, Siliguri

Class- XI HUM Sub: GEOGRAPHY

Holiday Homework

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1. Answer the following questions:

1) Define Geography. Who was the first scholar to coin the term Geography?

2) What are the three sets of questions with which Geography is concerned? Elaborate these three sets of questions.

3) How can we say that Geography is an integrating discipline ?

4) What are the different approaches to the study of Geography?

5) Draw the flow-charts showing different branches of Geography based on:

a) Systematic approach.

b) Regional approach.

6) What are the main branches of:

a) Physical Geography

b) Human Geography

2. Map work:

On the outline map of India mark and label the following:

a) The latitudinal and longitudinal extent of India.

b) Important line of latitude, important line of longitude.

c) Northern most and southern most places of India.

d) Important rivers of India.

****

G.D.Goenka Public School, Siliguri

History Holiday Home Work

Class- XI

Session 2018-19

Make a Project on any one of the topics listed below-

1. Stone tools used by early man.

2. Making and unmaking of Mesopotamia.

3. Relations and impacts of crusades.

4. Piercing together the past of Genghis Khan.

- Present your project in lace files (practical files).
- Use appropriate pictures to illustrate your project work.

G.D. GOENKA PUBLIC SCHOOL, SILIGURI
SUMMER HOLIDAY HOMEWORK
CLASS: XI (2018-2019)
Subject – INFORMATICS PRACTICES (065)

Case Study (On Computer System):

- Security of computer system
    - Spyware and cookies as security threat
    - Malware detection tools
    - Digital certificate
    - Digital signature
    - Firewall
- Latest Information Technology Trends in 2018
    - Virtual Reality and Human-Computer Interaction
    - Digital Currencies & Blockchain Revolution
    - Machine Learning & Artificial Intelligence
    - Internet of Things (IoT)
    - Quantum Computing

You have to prepare a handwritten project file, which will contain 10 pages.

The Project File should contain:

- Cover page
- Contents (All topics & Sub topics)
- Acknowledgement

NOTE:

* Neatness and accuracy should be maintained while organizing the project file.
* The quality of the project work is more important than the volume of the project file.
* Include sufficient photographs where ever required.
* 10 marks will be allotted for the above mentioned project which is to be added in Term-1 exam.

****

SUMMER HOLIDAY HOMEWORK
CLASS XI
MATHEMATICS

CHAPTER - 1

SETS

KEY POINTS

- A set is a well-defined collection of objects.
- There are two methods of representing a set :–
  (a) Roster or Tabular form.
  (b) Set-builder form or Rule method.
- Types of sets :–
  (i) Empty set or Null set or void set
  (ii) Finite set
  (iii) Infinite set
  (iv) Singleton set
- Subset :– A set A is said to be a subset of set B if $a \in A \Rightarrow a \in B$, $\forall\ a \in A$
- Equal sets :– Two sets A and B are equal if they have exactly the same elements i.e A = B if $A \subset B$ and $B \subset A$
- Power set : The collection of all subsets of a set A is called power set of A, denoted by P(A) i.e. $P(A) = \{ B : B \subset A \}$
- If A is a set with n(A) = m then $n[P(A)] = 2^m$.

Types of Intervals

Open Interval $(a, b) = \{ x \in R : a < x < b \}$

Closed Interval $[a, b] = \{ x \in R : a \leq x \leq b \}$

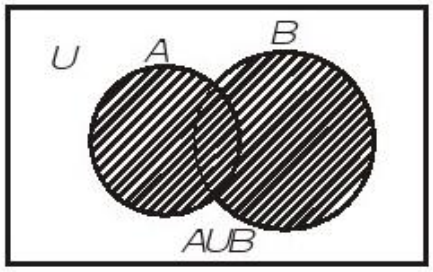
Semi open or Semi closed Interval,

$(a,b] = \{ x \in R : a < x \leq b\}$

$[a,b) = \{ x \in R : a \leq x < b\}$

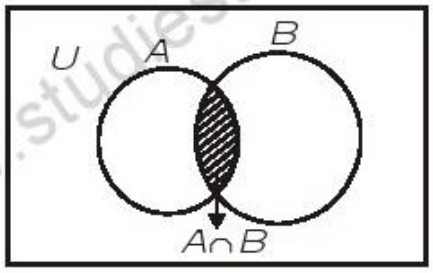
- Union of two sets A and B is,

  $A \cup B = \{ x : x \in A \text{ or } x \in B \}$

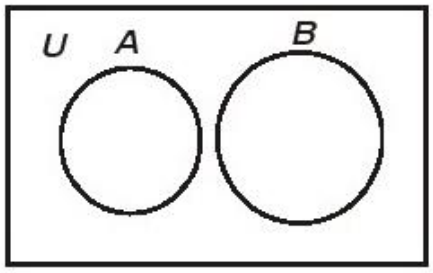


- Intersection of two sets A and B is,

  $A \cap B = \{ x : x \in A \text{ and } x \in B\}$

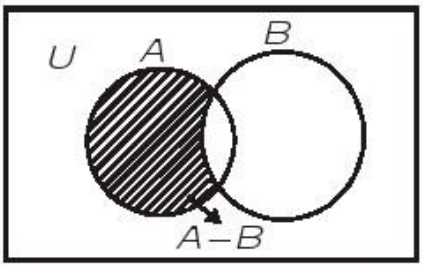


- Disjoint sets : Two sets A and B are said to be disjoint if $A \cap B = \phi$



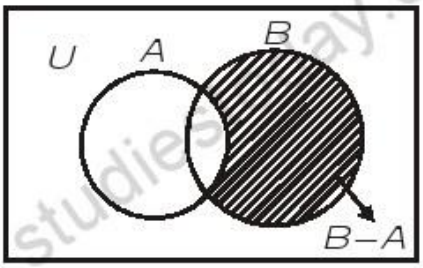
- Difference of sets A and B is,

  $A - B = \{ x : x \in A \text{ and } x \notin B\}$



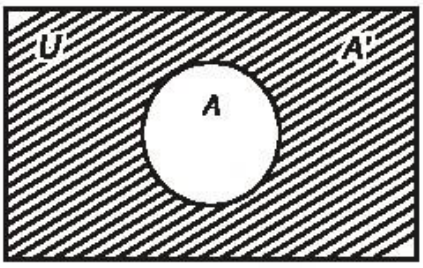
- Difference of sets B and A is,

  $B - A = \{ x : x \in B \text{ and } x \notin A \}$



- Complement of a set A, denoted by A' or A^c is

  $A' = A^c = U - A = \{ x : x \in U \text{ and } x \notin A\}$



- Properties of complement sets :

  1. Complement laws

     (i) $A \cup A' = U$ (ii) $A \cap A' = \phi$ (iii) $(A')' = A$

2. De Morgan's Laws

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

Note : This law can be extended to any number of sets.

3. $\phi' = \cup$ and $\cup' = \phi$

- $A - B = A \cap B'$
- Commutative Laws :–

  (i) $A \cup B = B \cup A$ (ii) $A \cap B = B \cap A$
- Associative Laws :–

  (i) $(A \cup B) \cup C = A \cup (B \cup C)$ (ii) $(A \cap B) \cap C = A \cap (B \cap C)$
- Distributive Laws :–

  (i) $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$

  (ii) $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$
- If $A \subset B$, then $A \cap B = A$ and $A \cup B = B$

VERY SHORT ANSWER TYPE QUESTIONS (1 MARK)

Which of the following are sets? Justify your answer.

1. The collection of all the months of a year beginning with letter M
2. The collection of difficult topics in Mathematics.

   Let $A = \{1,3,5,7,9\}$. Insert the appropriate symbol $\in$ or $\notin$ in blank spaces :– (Question- 3,4)

3. 2 —— A
4. 5 —— A
5. Write the set $A = \{ x : x \text{ is an integer}, -1 \leq x < 4\}$ in roster form
6. List all the elements of the set,

$$A = \left\{x : x \in Z, -\frac{1}{2} < x < \frac{11}{2}\right\}$$

7. Write the set B = {3,9,27,81} in set-builder form.

Which of the following are empty sets? Justify. (Question- 8,9)

8. A = { x : x ∈ N and 3 <x <4}

9. B = { x : x ∈ N and x^2 = x}

Which of the following sets are finite or Infinite? Justify. (Question-10,11)

10. The set of all the points on the circumference of a circle.

11. B = { x : x ∈ N and x is an even prime number}

12. Are sets A = { –2,2}, B = { x : x ∈ Z, x^2 –4 = 0} equal? Why?

13. Write (–5,9] in set-builder form

14. Write { x : –3 ≤ x <7} as interval.

15. If A = { 1,3,5}, how many elements has P(A)?

16. Write all the possible subsets of A = {5,6}.

If A = {2,3,4,5}, B = { 3,5,6,7} find (Question- 17,18)

17. A ∪ B

18. A ∩ B

19. If A = {1,2,3,6} , B = {1, 2, 4, 8} find B – A

20. If A = {p, q}, B = {p, q, r}, is B a superset of A? Why?

21. Are sets A = {1,2,3,4}, B = { x : x ∈ N and 5 ≤ x ≤ 7} disjoint? Why?

22. If X and Y are two sets such that n(X) = 19, n(Y) = 37 and n(X ∩ Y) = 12, find n(X ∪ Y).

SHORT ANSWER TYPE QUESTIONS (4 MARKS)

23. If ∪ = {1,2,3,4,5,6,7,8,9}, A = {2,3,5,7,9}, B = { 1,2,4,6}, verify

(i) (A ∪ B)' = A' ∩ B'

(ii) B – A = B ∩ A' = B – (A ∩ B)

24. Let A, B be any two sets. Using properties of sets prove that,

(i) $(A - B) \cup B = A \cup B$

(ii) $(A \cup B) - A = B - A$

[**Hint :** $A - B = A \cap B'$ and use distributive law.]

25. In a group of 800 people, 500 can speak Hindi and 320 can speak English. Find

(i) How many can speak both Hindi and English?

(ii) How many can speak Hindi only?

26. A survey shows that 84% of the Indians like grapes, whereas 45% like pineapple. What percentage of Indians like both grapes and pineapple?

27. In a survey of 450 people, it was found that 110 play cricket, 160 play tennis and 70 play both cricket as well as tennis. How many play neither cricket nor tennis?

28. In a group of students, 225 students know French, 100 know Spanish and 45 know both. Each student knows either French or Spanish. How many students are there in the group?

29. If $A = [-3, 5)$, $B = (0, 6]$ then find (i) $A - B$, (ii) $A \cup B$

LONG ANSWER TYPE QUESTIONS (6 MARKS)

30. In a survey it is found that 21 people like product A, 26 people like product B and 29 like product C. If 14 people like product A and B, 15 people like product B and C, 12 people like product C and A, and 8 people like all the three products. Find

(i) How many people are surveyed in all?

(ii) How many like product C only?

31. A college awarded 38 medals in football, 15 in basket ball and 20 in cricket. If these medals went to a total of 50 men and only five men got medals in all the three sports, how many received medals in exactly two

CHAPTER - 2

RELATIONS AND FUNCTIONS

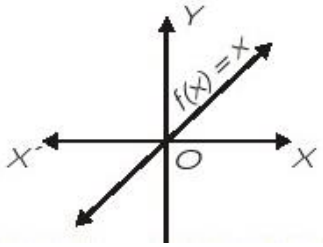
KEY POINTS

- Cartesian Product of two non-empty sets A and B is given by,

  $A \times B = \{ (a,b) : a \in A, b \in B\}$

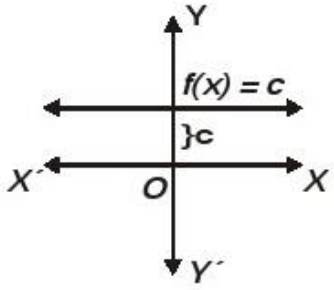
- If $(a,b) = (x, y)$, then $a = x$ and $b = y$
- Relation R from a non-empty set A to a non-empty set B is a subset of $A \times B$.
- Domain of $R = \{a : (a,b) \in R\}$
- Range of $R = \{ b : (a,b) \in R\}$
- Co-domain of R = Set B
- Range $\subseteq$ Co-domain
- If $n(A) = p$, $n(B) = q$ then $n(A \times B) = pq$ and number of relations $= 2^{pq}$
- A relation f from a set A to a set B is said to be a function if every element of set A has one and only one image in set B.
- $D_f = \{x : f(x) \text{ is defined}\}$ $\quad R_f = \{f(x) : x \in D_f\}$
- Identity function, $f : R \to R$; $f(x) = x \ \forall x \in R$ where R is the set of real numbers.

  $D_f = R$ $\quad R_f = R$



- Constant function, $f : R \to R$; $f(x) = c \ \forall x \in R$ where c is a constant

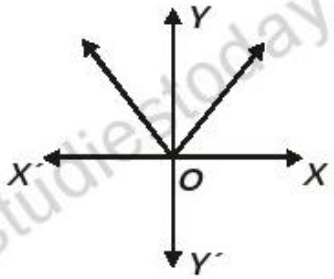
  $D_f = R$ $\quad$ $R_f = \{c\}$



- Modulus function, $f : R \to R$; $f(x) = |x| \ \forall x \in R$

  $D_f = R$

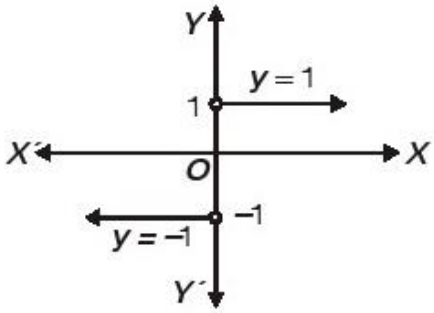
  $R_f = R^+ = \{ x \in R: x \geq 0\}$



- Signum function, $f : R \to R$; $f(x) = \begin{cases} 1, \text{If } x > 0 \\ 0, \text{ if } x = 0 \\ -1, \text{if } x < 0 \end{cases}$

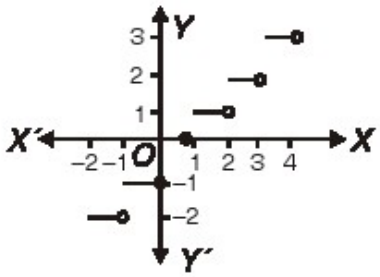
  $D_f = R$

  $R_f = \{-1,0,1\}$



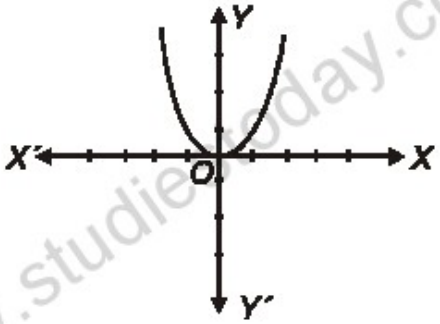
- Greatest Integer function, $f : R \to R$; $f(x) = [x]$, $x \in R$ assumes the value of the greatest integer, less than or equal to x

  $D_f = R$ $R_f = Z$



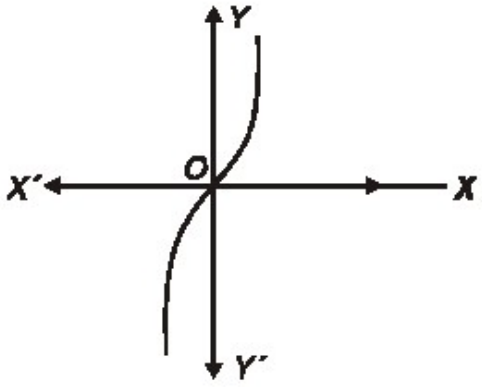
- $f : R \to R$, $f(x) = x^2$

  $D_f = R$ $R_f = [0, \infty)$



- $f : R \to R$, $f(x) = x^3$

  $D_f = R$ $R_f = R$



- Let $f : X \to R$ and $g : X \to R$ be any two real functions where $x \subset R$ then

  $(f \pm g)(x) = f(x) \pm g(x) \quad \forall x \in X$

  $(fg)(x) = f(x)\, g(x) \quad \forall x \in X$

$$\left(\frac{f}{g}\right)(x) = \frac{f(x)}{g(x)} \qquad \forall\ x \in X \text{ provided } g(x) \neq 0$$

VERY SHORT ANSWER TYPE QUESTIONS (1 MARK)

1. Find a and b if $(a - 1, b + 5) = (2, 3)$

   If $A = \{1,3,5\}$, $B = \{2,3\}$ find : (Question-2, 3)

2. $A \times B$

3. $B \times A$

   Let $A = \{1,2\}$, $B = \{2,3,4\}$, $C = \{4,5\}$, find (Question- 4,5)

4. $A \times (B \cap C)$

5. $A \times (B \cup C)$

6. If $P = \{1,3\}$, $Q = \{2,3,5\}$, find the number of relations from A to B

7. If $A = \{1,2,3,5\}$ and $B = \{4,6,9\}$,

   $R = \{(x, y) : |x - y| \text{ is odd}, x \in A, y \in B\}$

   Write R in roster form

   Which of the following relations are functions. Give reason. (Questions 8 to 10)

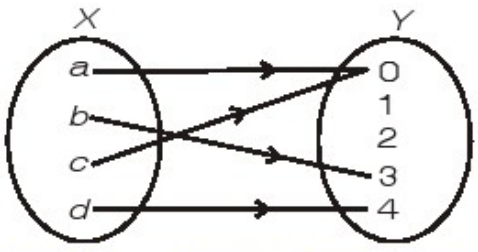
8. $R = \{(1,1), (2,2), (3,3), (4,4), (4,5)\}$

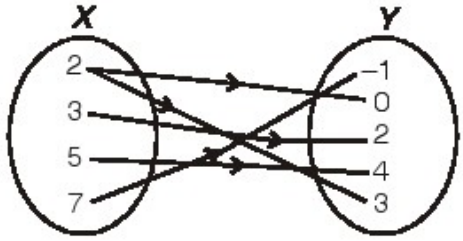
9. $R = \{(2,1), (2,2), (2,3), (2,4)\}$

10. $R = \{(1,2), (2,5), (3,8), (4,10), (5,12), (6,12)\}$

    Which of the following arrow diagrams represent a function? Why? (Question- 11,12)

11.



12. 

Let f and g be two real valued functions, defined by, $f(x) = x^2$, $g(x) = 3x + 2$, find : (Question 13 to 16)

13. $(f + g)(-2)$

14. $(f - g)(1)$

15. $(fg)(-1)$

16. $\left(\frac{f}{g}\right)(0)$

17. If $f(x) = x^3$, find the value of,

$$\frac{f(5) - f(1)}{5 - 1}$$

18. Find the domain of the real function,

$$f(x) = \sqrt{x^2 - 4}$$

19. Find the domain of the function, $f(x) = \frac{x^2 + 2x + 3}{x^2 - 5x + 6}$

Find the range of the following functions, (Question- 20,21)

20. $f(x) = \frac{1}{1 - x^2}$

21. $f(x) = x^2 + 2$

22. Find the domain of the relation,

$R = \{ (x, y) : x, y \in Z, xy = 4\}$

Find the range of the following relations : (Question-23, 24)

23. $R = \{(a,b) : a, b \in N \text{ and } 2a + b = 10\}$

24. $R = \left\{\left(x, \frac{1}{x}\right) : x \in z, 0 < x < 6\right\}$

SHORT ANSWER TYPE QUESTIONS (4 MARKS)

25. Let A = {1,2,3,4}, B = {1,4,9,16,25} and R be a relation defined from A to B as,

$$R = \{(x, y) : x \in A, y \in B \text{ and } y = x^2\}$$

(a) Depict this relation using arrow diagram.

(b) Find domain of R.

(c) Find range of R.

(d) Write co-domain of R.

26. Let R = { (x, y) : x, y ∈ N and y = 2x} be a relation on N. Find :

(i) Domain

(ii) Codomain

(iii) Range

Is this relation a function from N to N?

27. Let $f(x) = \begin{cases} x^2, \text{when } 0 \le x \le 2. \\ 2x, \text{ when } 2 \le x \le 5 \end{cases}$

$$g(x) = \begin{cases} x^2, \text{when } 0 \le x \le 3. \\ 2x, \text{ when } 3 \le x \le 5 \end{cases}$$

Show that f is a function while g is not a function.

28. Find the domain and range of,

$$f(x) = |2x - 3| - 3$$

29. Draw the graph of the Greatest Integer function

CLASS-11

Record File

**Archery, Badminton, Gymnastics, Judo, Swimming, Table Tennis, Taekwondo, Tennis and Bocce

***Record File shall include:

Practical-1: Labeled diagram of 400 M Track & Field with computations.

Practical-2: Computation of BMI from family or neighborhood & graphical representation of the data.

Practical-3: Labelled diagram of field & equipment of any one game of your choice out of the above list.

Practical-4: Explanation & list of current National Awardees (Dronacharya Award, Arjuna Award & Rajiv Gandhi Khel Ratna Award)

Practical-5: Pictorial presentation of any five Asanas for improving concentration.

G.D GOENKA PUBLIC SCHOOL
HOLIDAY HOMEWORK- PHYSICS
CLASS XI- SCIENCE

ACTIVITIES (CLASS XI SC) :

1.
To make a paper scale of given least count, e.g. 0.2cm, 0.5 cm.
2.
To determine mass of a given body using a metre scale by principle of moments.
3.
To observe and explain the effect of heating on a bi-metallic strip.
4. To note the change in level of liquid in a container on heating and interpret the observations.
5.
To study the factors affecting the rate of loss of heat of a liquid.

(REPORT THESE ACTIVITIES IN YOUR PRACTICAL NOTEBOOK WITH PROPER DATA, CHARTS AND DIAGRAMS)
(REFERRENCE: http://www.cbsepracticals.com/cbse-physics-class-11-syllabus)

6. NCERT PROBLEMS: 2.3, 2.6, 2.10, 2.14, 2.19, 2.29, 2.30, 2.31, 2.32

G.D GOENKA PUBLIC SCHOOL
HOLIDAY HOMEWORK- CHEMISTRY
CLASS XI -SCIENCE

Solving all questions of chapter 1 of NCERT

G.D GOENKA PUBLIC SCHOOL
HOLIDAY HOMEWORK- BIOLOGY
CLASS XI- SCIENCE

General Instructions:

1. *All experiments to be written in the practical file.*
2. *Prepare a project work on any relevant topic on biology of yourchoice.*
3. *The given assignments to be done in Biology notebook.*

G.D GOENKA PUBLIC SCHOOL
HOLIDAY HOMEWORK- COMPUTER SCIENCE

CLASS: XI **SUBJECT: Computer Science**

Chapter : Computer Overview

1. What is data? What is the output of data processing system?
2. What is the function of memory? What are its measuring units?
3. What are the differences between hardware, software and firmware?
4. How is compiler different from interpreter?
5. Name the super computers developed in India.
6. What are the major strengths and weaknesses of computer?
7. Define and distinguish between Data and Information.
8. Distinguish between CPU and ALU.
9. What is a Byte? What is Binary code?
10. Give Full forms of the following. (Can take help from Internet for this only)

(i)ENIAC (ii) EDVAC

(iii)EDSAC (iv) UNIVAC

HOLIDAY HOMEWORK
CLASS XI
ACCOUNTANCY (055)

1. State what is the end product of Financial Accounting? Explain any four limitations of financial accounting.
2. What is the function of book keeping?
3. Differentiate between book keeping and Accounting.
4. Name the external user of accounting information from whom firm takes loan?
5. Resignation of Marketing Manager is not recorded in books. Why?
6. Explain the following terms:
   (a) Fictitious Assets
   (b) Contingent liabilities
   (c) Deferred Revenue Expenditure
   (d) Capital Receipt and Revenue Expenditure
   (e) Asset
   (f) Revenue
   (g) Trade payable
   (h) Income and gain
   (i) Inventories
   (j) Trade Receivables
7. Explain the following Assumptions / Principles:
   (a) Prudence/conservatism
   (b) Consistency
   (c) Matching
   (d) Going concern
8. 'Accounting information should be verifiable and free from Accounting bias', Name the qualitative characteristics of Accounting information denoted by this statement.
9. 'Closing Stock is valued at lower of cost or market price'. Which concept of
   Accounting is applied here. Explain.
10. A company has lost vital Machinery in an accident on 2 nd May 2017 which will have adverse effect on its production capacity. As a result it is likely to lose business to its competitors. The company has not disclosed this fact in the annual report for the year ended 31st March 2018. Do you think it is correct?
11. Gopal purchased 1000 square yard of Land to build a factory and paid 15,00,000 towards its cost (including registration charges of Rs. 1,00,000).At the end of the year the value of land came down to Rs. 13,00,000. At what price should Gopal record the value of Land in his books?

12. Define Accounting Standards. Give basic two objectives of Accounting Standards?
13. Which Financial Statements are prepared under IFRS? Briefly explain the elements of the first two.
14. Ajay, a dealer in furniture, received advance against sale of table and chair. How should this advance be treated and why?
15. Show the accounting equation on the basis of the following transactions.
    (i) Started business with Cash Rs. 1,10,000, Goods Rs. 30,000 and Furniture Rs. 10,000.
    (ii) Purchased goods for Cash Rs. 20,000 and Credit Rs. 25,000.
    (iii) Goods costing Rs. 48,000 sold at a profit of 33 ⅓ % .Three fourth payment was received in cash.
    (iv) Goods costing Rs.20,000 sold at a loss of 5% out of which 12,000 received in cash.
    (v) Paid rent Rs. 2,000 rent outstanding Rs. 1,000.
    (vi) Withdrew Rs. 5,000 for personal use.
    (vii) Interest on capital provided Rs.2,000.
    (viii) Commission received Rs. 10,000 out of which 1/4th relates to the next year.
    (ix) Depreciate furniture @10% per annum for 3 months.
    (x) Good worth Rs. 2,000 destroyed by fire.
    (xi) Paid Rs.24,000 to creditors in full settlement.
    (xii) Paid security deposit to Landlord Rs. 2,000.
    (xiii) Sold goods costing Rs. 5,000 at Rs. 8,000 and received a Bill Receivable for the same.
    (xiv) Cash received against Bill receivable on Maturity.
    (xv) Received cash from debtors and discount allowed @10%.

HOLIDAY HOMEWORK
CLASS XI

BUSINESS STUDIES(054)

Chapter No. 1: Nature and Purpose of Business

Page No. 44 (Review Exercises) from Poonam Gandhi

1. **Very short Answer Type Questions:**
   Question No.s : 1,3,4,5,7
2. **Short answer Type Questions**:
   Question No.s : 2,4,5,7
3. **Long answer type Questions**:
   Question No.s: 3,7,8,9