

**Dwarka International School**  
**Sector-12, Dwarka, New Delhi-110078**  
**Holiday Assignment- Class XI**  
**ENGLISH**

**Dear Students**

Class XI is a delicate phase where you decide your streams which eventually decide your career. It comes after a lot of hard work in class X and the Board Examination which tests your skills as well as nerves. It is therefore human nature to be a bit lethargic and adopt a laid-back attitude after this mountainous hard work. It is okay to be easy-going during this phase but to detach oneself completely from mainstream academics will indeed be a blunder. With this perspective, the school has prepared well-planned holiday homework to enable you to devote quality time to each subject. We do hope, it will help you to boost your academic skills.

Please follow the given instructions.

1. Tutankhamun was an Egyptian pharaoh of the 18th dynasty, during the period of Egyptian history known as the New Kingdom or sometimes the New Empire Period. He has, since the discovery of his intact tomb, been referred to colloquially as King Tut. Read the extract given about the pharaoh, **‘Discovering Tut: The Saga Continues’** and answer the textual questions in your note-books.
2. You are Ram/Rajani, Secretary, Social Service Club, Sun Public School, Nagpur. Your club is organizing a book fair for your school students. Draft a notice for your school notice board giving all relevant information about the event, in not more than 50 words in your note-books.
3. You are Mallika, student of class XII, Towvale Girls’ School, Shimla. You are eager to enter the National Film Academy, Shimla, after her board results. Write a letter to the director of the film academy seeking information regarding admission procedure, eligibility criteria, fee structure, placement opportunities, etc. (in your note-books)
4. You have bought a washing machine from Electronics City, Gurgaon on 22nd February, 2019 with bill number CC45B8-16 with three years of onsite warranty. Unfortunately, the 3.5ton machine has starting malfunctioning. Even after your repeated calls to the customer care, you have not been given any service by the company. Write a letter of complaint to the Sales Manager, Electronics City, Gurgaon – 01. You are Ramesh Narayan of 1/D, Kailash Nagar, Palampur, New Delhi. (in your note-books)

5. You are Ayush Aggarwal/Ayushi Khanna, HoD Computer Science Dept. of D.A.V Public School, Noida, Uttar Pradesh. You wish to place an order of computer peripherals like a printer, a set of spare black and coloured cartridges etc from Arihant Computer Services, New Delhi. Write a letter to the Manager giving necessary details. (in your notebooks)
6. Contribute articles/poems/stories/experiences for the school magazine 'Gokul Days'. (A-4 sized sheet)
7. Create a memory book with pictures along with write-ups.
  - **Read newspaper and keep yourself updated.**
  - **Make a habit of writing a page sharing your experiences of the day in form of diary writing.**
  - **Read a book to enhance your awareness and vocabulary.**
  - **Help your parents and grandparents. Converse with them the maximum and learn about their shares of struggles and sufferings.**

## **UT-1 SYLLABUS**

**M.M:50MARKS**

### **SECTION A- READING (12)**

UNSEEN PASSAGE/POEM

### **SECTION B ADVANCED WRITING SKILLS&GRAMMAR (18)**

- NOTICE WRITING (4)
- NOTICE WRITING (4)
- BUSINESS LETTER (6)

### **GRAMMAR (4)**

- GAP FILLING (2)
- EDITING (2)

### **SECTION C LITERATURE (20)**

REFERENCE TO CONTEXT (4)

REFERENCE TO CONTEXT (4)

SHORT ANSWER QUESTIONS (3X2=6)

LONG ANSWER QUESTIONS (1X6=6)

**CHAPTERS**

- THE PORTRAIT OF A LADY
- A PHOTOGRAPH
- WE'RE NOT AFRAID TO DIE IF WE CAN ALL BE TOGETHER

**SUBJECT: ACCOUNTANCY AND BUSINESS STUDIES**

Vacation is always a great chance to relax and helps us to gain a healthy mentally, lots of refreshment by both mentally or physically. Have a nice vacation! Go to beautiful places, go shopping, enjoy!

Have a Happy Trip! Here's hoping you enjoy your trip! May every single minute, in every way, hold only good times in it!

Make the trip you always wanted, travel with your family and take many pictures, get energy for when you return to school. We are waiting to see your smiling and stress free face!

Though in vacation mode, adhere to the following schedule:

1. Make the project as per the guidance given by teacher in classroom.
2. Gather all the relevant information about the concerned project as discussed in classroom.
3. Have a clipping of cut off list of colleges for your future references.
4. Read the newspapers daily to get awareness about the changes in business environment for future case studies.
5. Do back exercise questions of T.S. Grewal of chapter – Journal and Ledger in notebook.
6. Revise chapters done in class for business studies.
7. Do the assignment attach of chapter 1 and 2.

#### UT 1 Syllabus

##### ACCOUNTANCY:-

Unit Test –I: Chapters – 1, 2, 3,4,5,6,7,8,9 till ledger.

##### BUSINESS STUDIES:-

Unit Test –I: Chapters – 1, 2, 3

#### ASSIGNMENT:

##### **CHAPTER 1 – NATURE AND PURPOSE OF BUSINESS**

1. Classify the following into business, profession and employment:
  - a. Hari sells mobile phones on behalf of his employer.
  - b. It requires minimum academic and other qualification.
  - c. A hawker sells toys for children outside a function.
  - d. Sanjay is advocate in High Court.
  - e. Dhruv is the manager of a mobile company.
  - f. A person repairs scooter on roadside.
  - g. Shyam works as a sales executive in a garments company.
2. Saksham sells his PlayStation to his friend at a profit of Rs. 2000. Will it be considered as a business? State the feature of business which is being highlighted in the given example.
3. Santosh and sandeep both completed their MBA education and thought of making business as their career. Santosh set up a Flour Mill, while Sandeep started the Wholesale Business of Ghee. Both the friends are engaged in creation of utility in their respective business. Point out the creation of utility being done by each of them.

4. Rakhi had some such book as were rare in the market. One of her friends needed those books. Rakhi sold out all those books of hers to her friend for RS 5,000 and earned a profit of Rs 1,000. Can this activity of hers be called a business? Give one reason to justify your answer.
5. Which hindrance of commerce is highlighted in the following cases:
  - a. It removes the geographical separation between producers and consumers.
  - b. Warehousing facilitates holding of goods till they are required.
  - c. Trade provides an organised market where buyers and sellers can contact each other.
  - d. Bank and Financial Institutions provide necessary funds to carry on business activities.
  - e. Advertising informs the consumers about the goods and services available in the market.
  - f. There exists time gap between production and consumption of goods.
  - g. Insurance protects the goods in case of damage due to theft, fire and accidents.
6. Name the trade where import of goods is made before the export of goods.
7. "There are three major categories of economic activities. Though all these involve earning money, they differ from each other significantly". Explain this difference on any five bases.
8. Which feature of Business risk is referred in the statement: 'business risk can be minimized but cannot be eliminated'.
9. In which economic activity does the activity of a worker fall?
10. "Giving priority to service instead of economic self – interest." Is the characteristic of which economic activity?
11. Which person cannot transfer his interest?
12. Under which category of goods Machinery, Plant and Tools are placed?
13. Under which category of goods Bread, Cloth and Medicines are placed?
14. Which hindrance of business is removed by the advertising industry?
15. Mr. Rohit is a student of class – 11. He has full knowledge of all characteristics/ features of business. He is advising one of his friends that "Business is a bed of roses, so there is no harm in adopting it as a career."  
Do you think Rohit is right in saying so?
16. "Profit is not only an objective of business, but it is the necessity of business also."  
Are you agree with this statement? Give one reason in favour of your answer.
17. Neha cooks food at home for her family and Ramesh cooks food in a Restaurant.  
Who is engaged in business activity?
18. In which type of secondary industry various raw materials are combined together to make the final product?
19. Which business activity removes all the hindrances in the process of exchange?

20. Which type of Business risk involves both the possibility of gain as well as possibility of loss?
21. How will you determine whether a particular activity is an economic activity or a non – economic activity?
22. ABC Ltd. is planting trees on roadside. Which objective is it trying to achieve?
23. Why does a businessman willingly undertake a business risk?
24. State whether the following statements are true or false. Give the correct reason in case the statement is false –
  - a. Industry and Commerce are interchangeable terms.
  - b. Conversion of cotton into cloth is an example of genetic industry.
  - c. Profession involves greater risk than business.
25. State three features of employment.
26. Which industry provides services to primary and secondary industry?
27. Name the auxiliary to trade –
  - a. Which removes the hindrance of information?
  - b. Which removes the hindrance of time?
  - c. Which removes the hindrance of finance?
  - d. Which removes the hindrance of risk?
28. What type of industry is warehousing?
29. Name the business activity which is concerned with conversion of resources into useful goods.
30. Explain the concept of business. Briefly explain the categories of business activities.
31. A housewife sells old newspapers every month. Is it a business activity?
32. Ashiana Ltd. is engaged in manufacturing readymade garments. The company puts very high emphasis on protection of environment during the manufacturing process. Mention the type of objective which the company is pursuing and explain two more objectives of this category.
33. “Profit is a strong incentive for an entrepreneur to start and run a business”. Define incentives.
34. Mohan is involved in importing goods from the US and exporting these to Nepal, Bangladesh and Sri Lanka. In which type of trade is Mohan involved?
35. Is profit the sole objective of business. Explain?
36. “In business, there are some activities which provide support to perform activities related to Industry and Trade.” Mention the name by which these activities are known and explain any four activities of this category.

#### APPLICATION – ORIENTED QUESTION

1. Ramesh has done Post Graduate Diploma in Clothing and Textiles from a premier institute. Though he does not have any business experience. He wants to open his own business of manufacturing readymade garments of the latest fashion. These

garments will be sold in Indian market as well as exported to prominent foreign countries. In this context, the following questions arise:

- a. Is his lack of business experience a significant risk for business? If yes, in what way?
- b. What are other risks that are involved in the garment business?

Answer the above questions.

### VALUE – BASED QUESTION

1. A well – qualified medical practitioner attracted lots of patients. Later, he opened a medical store within the premises of his nursing home. In order to earn more money quickly, he started procuring medicines from sub – standard pharmaceutical companies on which more commission was available. He used to prescribe only those medicines which were available in his store. Explain any three characteristics of economic activity in which the medical practitioner is involved and identify any two values ignored by the medical practitioner.
2. Atlanta Ltd. has set the following objectives:
  - (i) To reasonable profit.
  - (ii) To provide innovative products to customers based on research and development.
  - (iii) To adopt fair trade practices.
3. A company decided to award scholarship for the children of its employees who score more than 90% marks in class XII so as to enable them to pursue higher studies. What is the aim of this company?
4. A person is doing his business having mainly profit his objectives. Point out the values being ignored by him.
5. A group of four friends established/set up a factory. This factory was set up in a residential locality. Its machines were very noisy. The children could not concentrate on their study without distraction. On the other hand, this factory provided employment to so many people. Point out the values being affected here. Mention any three of them.
6. Differentiate the following activities into Economic and Non – Economic.
  - (i) A property dealer is purchasing a house for himself.
  - (ii) A doctor is giving his son a medical treatment.
  - (iii) A person is selling tea on a railway station.

### CHAPTER 2 – FORMS OF BUSINESS ORGANISATION

1. “Control by a single individual is the best in the world if that person is so capable of managing all the affairs by himself.” This statement refers to which type of business organisation?
2. Why the size of sole proprietorship generally remains small?

3. Name the form of business organisation which is easiest in formation and closure.
4. When is it appropriate to form a sole proprietorship?
5. In which form of organisation is a trade agreement made by one owner binding the others? Give reasons to support your answer.
6. Identify the type of partner highlighted in the following statement –
  - a. This partner does not take any part in the day – to – day activities of the business.
  - b. He gives an impression of his being partner to others by his words or conduct.
  - c. He is represented as a partner and in spite of knowing this; he does not deny such impression.
  - d. His association with the firm is not disclosed to the general public.
  - e. This partner is also known as dormant partner.
  - f. This partner takes an active part in carrying out business of the firm.
7. Which type of partnership is formed for completing a particular job?
8. Even though registration of partnership firm is not compulsory, still partners prefer to get it registered. Why?
9. How a male member does become member of Joint Hindu Undivided business?
10. What does a 'Sole management' mean in a sole trade?
11. "He enjoys all gains and bears all losses." To which business organisation is this statement related?
12. Which organisation gives the benefits of personal contact with the customers?
13. On how many members' demand the division of Joint Hindu Family can be allowed?
14. In a limited partnership how many partner/partners with unlimited liability is/are required?
15. Write any one condition under which a partnership is considered illegal.
16. Apart from getting profit what else can the partners of the firm get?
17. "Removing the middle - men" which cooperative society has it as its motto?
18. Who is primarily responsible for the lack of secrecy in a company organisation?
19. Whose name is inscribed on the common seal of the company?
20. Name the representative elected by the shareholders for running the company.
21. In which business organisation there is lack of motivation.
22. If it is important to maintain secrecy in some business, which business organisation should be selected?
23. If the scale of production has to be large, which business organisation will be more suitable?
24. What is the father of a company called?
25. What do we call the first stage of the formation of a company?
26. Write the full form of CIN.
27. Write one effect of the incorporation of a company?
28. For which company is it obligatory to get the certificate for starting a business?

29. Which clause of Memorandum of Association explains the rights of a company?
30. What is obligatory to be written at the end of the name of a private company?
31. Give the name of the assisting document of MOA.
32. "Karta is the most active member in Joint Hindu Business. He is too powerful to ruin the business". Comment.
33. State the two conditions necessary for formation of Joint Hindu Business.
34. Which form of business has voluntary membership and is created for the welfare of its member?
35. How does a cooperative society exemplify democracy and secularism?
36. "Although company is an artificial person, it can still have own property and enter into contract". Defend or refute.
37. "The existence of company is not affected by death or insolvency of its members". Which feature of company is highlighted by the given statement?
38. Differentiate between a company and sole proprietorship on the bases of formation.
39. Why a company cannot use personal property of shareholders to pay off business assets?
40. How will you identify that a particular company is a private company or public company?
41. Which form of business organisation is suitable in the following cases:
  - a. There should be minimum expenses in starting the business.
  - b. The business should have stability and continuity.
  - c. The ancestral property is to be used for doing business.
  - d. More funds and professional services are required.
  - e. The business organisation should be suitable from the point of view of investors.
42. State whether the following statements are true or false :
  - a. Death or insanity of member of Joint Hindu Family Business will bring its business to an end.
  - b. An unregistered firm cannot be sued by third party.
  - c. If two dacoits sign an agreement to operate together and share the result of robbery; it is a partnership firm.
  - d. Cooperative Societies are made with profit motive.
  - e. A company can enter into a contracts, file suit against other sand hire persons.
  - f. A Joint Hindu Family Business is based on a contract between coparceners.
  - g. A nominal partner is a partner in name only; he incurs no liabilities.
43. Smart ltd. invited general public to subscribe for its public issues of Rs 10 crores (1 crores shares @ Rs. 10 each) through issue of prospectus. It receives application for 45 lakhs shares. Can the company proceed with the allotment of shares? Give reason.

44. "both public company and private company, can commence business after obtaining certificate of incorporation". Do you agree? Give reason.
45. Is registration of partnership necessary?
46. Can a minor become the member of a Joint Family Business?
47. Write three effects of incorporation of a company.
48. Why is it important to choose an appropriate form of organisation? Discuss the factors that determine the choice of the form of an organisation.
49. Is it necessary for a public company to get its shares listed on stock exchange? What happen if a public company going for a public issue fails to apply to a stock exchange for permission to deal in its securities or fails to get such permission?
50. Rao industries intend to open a retail stores in every locality, but it is not sure of profitability due to tough competition. Do you think the business opportunity is feasible?
51. Who are the first directors of the company?
52. Which is the regulatory authority in the securities market to protect the interest of investors?
53. What is the net effect of the Certificate of Incorporation?
54. Why technical feasibility study is undertaken?
55. At which stage in the formation of a company does it interact with SEBI?
56. What is the nature of liability of a minor partner?
57. Name the document which contains partnership agreement.
58. "The one man control is the best in the world. If that one man is big enough to manage everything". Mention the form of business with which this statement is related and explain its two features.
59. "A company tends to have an oligarchic management". Mention the aspect of the company with which this statement is related and explain three more points of this aspect.
60. Name the document which contains terms and conditions for running a partnership firm and mention its contents.

#### APPLICATION – ORIENTED QUESTION

1. Rahul, a diploma holder in fashion technology, started his business of manufacturing ready – made garments in the form of sole trader. His business achieved considerable success. In order to expand his business, Rahul wanted to convert his business into joint stock company form. What benefits will he lose in converting his present form of business into the proposed form and what benefit will he derives for his ready – made garments business in the new form of organisation?
2. "On account of a number of losses, the personal properties of a Sole Proprietor can be used for repayment to the creditors." To which of the characteristics of Sole Trade does this statement relate?

3. All the employees of Thapar Pvt Ltd. Made/formed a society/committee. The society purchased a piece of land and constructed flats on it for its members. Identify the form of business organisation.
4. If the properties of a company are insufficient to repay all the debt, can the balance amount be repaid with the private properties of the members of a company?
5. Which of the certificate is known as the Birth certificate of the company?
6. How can a person identify whether a company is a private co. Or a public co.?
7. Rajesh and Rajnish bought 20 quintal of sugar and both of them divided it equally between themselves. Are Rajesh and Rajnish partners? Explain.
8. Aunvi and Ankit bought a Godown, on which they invested the money equally. They rented out the godown and divided the received amount equally between themselves. Are Aunvi and Ankit partners? Explain.
9. There are 8 members in a Private Company. All of them are sailing in a boat in the sea and are on a sight – seeing trip. All of sudden a storm starts blowing and all of them die. Will their company become non – existent with their death?
10. Mr. Neeraj Gupta contracted with a firm. According to the contract, he loaned a heavy amount to the Firm and in exchange he obtained the power of taking some decisions regarding the firm’s business. Besides, he used to get 9% interest on the loaned money and 12% of profits earned by the firms.  
Can we consider Mr. Neeraj Gupta a partner of the Firm? Answer the question, giving reason for it.
11. You are a Business Consultant. Mr. Kumar has recently retired from Government Services. He is 58 year old and he wants to set up a factory in order to manufacture plastic goods. He has come to consult you so that you may suggest to him a suitable form of business organisation. The following are his main expectation from the business organisation:
  - a. Easy formation
  - b. Flexibility in operation
  - c. Sharing of profits with limited persons
  - d. Sufficient persons to look after various business activities.Which form of business will you suggest to Mr. Kumar and why?
12. You are a student of class 11. You have full knowledge of the different forms of business organisation. Mr. Rohan wants to set up a business. He needs your help in choosing a business organisation. He has two main expectations from the business organisation.
  - a. Limited liability
  - b. ContinuityWhat suggestions will you give to Mr. Rohan and why?
13. The business assets of a firm amount to Rs. 50,000 but the debts that remain unpaid are Rs 80,000. What course of action can the creditors take if –
  - a. The organisation is a sole proprietorship firm

- b. The organisation is a partnership firm with Anthony and Akbar as partners. Which of the two partners can the creditor approach for repayment of debt? Explain giving reason

### VALUE – BASED QUESTION

1. Father of Inamdar was partner in a partnership firm along with other two partners. On death of his father, Inamdar joined the firm as a partner. Since he was busy in pursuing his professional course, he opted to be a sleeping partner. After completing the course, he started as an active partner. On his close observation, he found that the firm was having the following practices:
  - a. Overbilling the invoices and taking refund of overbilling amount from the buyers of goods in cash without any entry in books of accounts.
  - b. Excessively high salaries paid to active partner.Explain sleeping partner and active partner and identify the values ignored by the above practice adopted by the partners.
2. Employees of an organisation formed a cooperative store to ensure that the employees get various goods at a reasonable price from the store. Majority of the employees become its members enthusiastically. Identify the values involved in forming and joining the cooperative stores by the employees and their effects on them.
3. In order to set up a Manufacturing Business the choice of the site was done in a residential area. Which value is being violated by the concerned businessman?
4. Some persons joined together and set up a Consumer Cooperative Society in order to get rid of the exploitation by businessmen and commission agents. Which social values are being influenced by such an approach of these persons?
5. Alka, Komal and Kamal are partners in a Firm. Kamal uses Rs 20 Lac of the Firm, without any information to the other partners, to purchase a house and he earns a profit of Rs 5 lakhs on it. Which values are being violated here? Also tell, what will happen to the profit earned by kamal?
6. Akhil, Bhawna and Chanchal join together and set up a Partnership Organisation. They do the wholesale Trade of 'Ghee', 'Sugar' and 'Pulses'. They got a document prepared, which stated the different terms and conditions in order to run the partnership organisation smoothly and properly. Tell the name of the document prepared. Also clarify the values this document safeguards.

# XI Class Physical Education Syllabus

## UNIT 1. Changing Trends and Careers in Physical Education

- (1) Meaning and Definitions of Physical Education
- (2) Aims and Objectives of Physical Education
- (3) Career Option in Physical Education

## UNIT 2. Olympic Value Education

- (1) Olympic Symbol, Ideals, Objectives and Values
- (2) International Olympic Committee
- (3) Indian Olympic Association

## UNIT 3. Physical Fitness, Wellness and Lifestyle

- (1) Meaning and Importance of Physical Fitness, Wellness and Lifestyle
- (2) Components of Physical Fitness
- (3) Components of Health Related Fitness
- (4) Components of Wellness

## PHYSICAL EDUCATION H W

Complete your practical file as discussed in the class

SUBJECT: MATHS

## UT-1 SYLLABUS

CHAPTER :2 RELATION AND FUNCTION

CHAPTER 3: TRIGNOMETRIC FUNCTIONS

CHAPTER 4: MATHEMATICAL INDUCTION

CHAPTER 5: COMPLEX NUMBERS AND QUADRATIC EQUATIONS

***In our head, we hear a humming,  
Summer, summer, summer's are coming  
Soon we're all going on a vacation  
Gearing up with wonderful sensations.***

With summer vacation round the corner, let's prepare ourselves not just to relax and rejuvenate but also to utilize the time in creative and constructive ways. It is the time of the year again when we can do things which we are unable to do during the regular routine days.

- Read books! May it be fables, fairy tales, encyclopedia or comic books. Explore the imaginative world and go on a fantasy tour.
- Run, exercise, sweat! Channelize your energy, build team spirit and enjoy playing challenging sports and games.
- Enhance your communication skills by conversing with your friends and family in English.
- Explore the culture and heritage of your city by visiting heritage sites like monuments and peep into the rich history.

Have fun!

Do the assignments given on chapters-1, 2 ,3 and 8.

**HOLIDAY HOMEWORK , SESSION 2019-20**

**SUBJECT – MATHEMATICS , CLASS – XI**

## Complex Numbers and Quadratic Equations

### Q. No. 1 - 5 are very short answer type questions:

1. Find the value of  $x$  and  $y$  ( $x, y \in R$ ) if :  $2y + (3x - y)i = 5 - 2i$
2. Express  $3i^3 + 6i^{16} - 7i^{29} + 4i^{27}$  in the form  $x + iy$  where  $x, y \in R$ .
3. Evaluate :  $\left(i^{41} + \frac{1}{i^{257}}\right)^9$
4. If  $Z_1 = 1 - i, Z_2 = -2 + 4i$ , find  $\operatorname{Im}\left(\frac{Z_1 Z_2}{Z_1}\right)$ .
5. Find the conjugate of the complex number:  $\frac{1}{2 - 3i}$
6. Write the following complex numbers in the polar form:

(i)  $-2 - 2i$  (ii)  $\frac{1}{1 + i}$

7. Find the complex conjugate of  $\frac{(8 - 3i)(6 - i)}{2 - 2i}$ .
8. Find the multiplicative inverse of  $\left(\frac{3 + 4i}{4 - 5i}\right)$
9. Find the modulus and argument of  $\frac{1 + 2i}{1 - 3i}$
10. If  $(a + ib)^2 = (x + iy)$ , prove that  $(a^2 + b^2)^2 = (x^2 + y^2)$
11. Find  $x$  and  $y$  if  $\frac{(1 + i)x - 2i}{3 + i} + \frac{(2 - 3i)y + i}{3 - i} = i$
12. For what values of  $x$  and  $y$  are the numbers  $-3 + ix^2y$  and  $x^2 + y + 4i$  complex conjugates?  
( $x, y$  are real numbers.)

13. Solve the following quadratic equations:

(i)  $6x^2 - 17ix - 12 = 0$

(ii)  $3x^2 + 7ix + 6 = 0$

(iii)  $x^2 - (7 - i)x + 18 - i = 0$

(iv)  $x^2 - (3\sqrt{2} - 2i)x - 6\sqrt{2}i = 0$

(v)  $2x^2 - (3 + 7ix)x + 9i - 3 = 0$

14. Find the square root of: (i)  $-8 - 6i$ , (ii)  $-5 + 12i$ , (iii)  $-i$

#### Chapter – 4 ( Principle of Mathematical Induction)

Using the principle of mathematical induction prove the following for all  $n \in \mathbb{N}$  :

1.  $3.6 + 6.9 + 9.12 + \dots + 3n(3n + 3) = 3n(n + 1)(n + 2)$

2.  $\left(1 - \frac{1}{2}\right)\left(1 - \frac{1}{3}\right)\left(1 - \frac{1}{4}\right) \dots \left(1 - \frac{1}{n+1}\right) = \frac{1}{n+1}$

3.  $n^2 + n$  is an even natural number.

4.  $2^{3n} - 1$  is divisible by 7

5.  $3^{2n}$  when divided by 8 leaves the remainder 1.

6.  $4^n + 15n - 1$  is divisible by 9
7.  $n^3 + (n + 1)^3 + (n + 2)^3$  is a multiple of 9.
8.  $x^{2n-1} - 1$  is divisible by  $x - 1$ ,  $x \neq 1$
9.  $3^n > n$
10. If  $x$  and  $y$  are any two distinct integers then  $x^n - y^n$  is divisible by  $(x - y)$
11.  $n < 2^n$
12.  $a + (a + d) + (a + 2d) + \dots + [a + (n - 1)d] = \frac{n}{2} [2a + (n - 1)d]$
13.  $3x + 6x + 9x + \dots$  to  $n$  terms  $= \frac{3}{2} n(n + 1)x$
14.  $\frac{n^5}{5} + \frac{n^3}{3} + \frac{7n}{15}$  is a positive integer
15.  $11^{n+2} + 12^{2n+1}$  is divisible by 133.

### Chapter – 3 ( Trigonometric Functions)

Q1. The difference between two acute angles of a right triangle is  $\frac{\pi}{9}$ . Find the angles in degree.

Q2. A horse is tied to a post by a rope. If the horse moves along a circular path always keeping the rope tight and the horse travels 44 metres when it was traced out  $72^\circ$  at the centre, find the length of the rope.

Q3. The angles of a triangle are A.P. such that the greatest is 5 times the least. Find the angles in radians.

Q4. Prove that (i)  $(1 + \tan \alpha \tan \beta)^2 + (\tan \alpha - \tan \beta)^2 = \sec^2 \alpha \sec^2 \beta$

(ii) 
$$\frac{\tan A}{1 - \cot A} + \frac{\cot A}{1 - \tan A} = \sec A \operatorname{cosec} A + 1$$

Q5. If  $\sin \theta = \frac{12}{13}$  and  $\theta$  lies in 2<sup>nd</sup> quad, then find the value of  $8 \tan \theta - \sqrt{5} \sec \theta$

Q6. Prove that :-

(i) 
$$\frac{\cos(2\pi + \theta) \operatorname{cosec}(2\pi + \theta) \tan\left(\frac{\pi}{2} + \theta\right)}{\sec\left(\frac{\pi}{2} + \theta\right) \cos \theta \cot(\pi + \theta)} = 1$$

(ii) 
$$\frac{\tan(90^\circ - \theta) \sec(180^\circ - \theta) \sin(-\theta)}{\sin(180^\circ + \theta) \cot(360^\circ - \theta) \operatorname{cosec}(90^\circ - \theta)} = 1$$

(iii) 
$$\frac{\tan 69^\circ + \tan 66^\circ}{1 - \tan 69^\circ \tan 66^\circ} = -1$$

(iv) 
$$\frac{\cos 11^\circ + \sin 11^\circ}{\cos 11^\circ - \sin 11^\circ} = \tan 56^\circ$$

Q7. If  $\tan \alpha = \frac{m}{m+1}$ ,  $\tan \beta = \frac{1}{2m+1}$  then prove that  $\alpha + \beta = \frac{\pi}{4}$

Q8. Prove that (i)  $\tan 3A \tan 2A \tan A = \tan 3A - \tan 2A - \tan A$

(ii)  $(1 + \tan A)(1 + \tan B) = 2$  when  $A + B = \frac{\pi}{4}$

Q9. Draw the graph of

(i)  $y = 3 \sin x$

(ii)  $y = \operatorname{cosec} x$

(iii)  $y = \sec x$

(iv)  $y = \sin x + \cos x$

Q10. Solve the following trigonometric equations :-

(i)  $\tan\left(\frac{2}{3}\theta\right) = \sqrt{3}$

(ii)  $7\cos^2\theta + 3\sin^2\theta = 4$

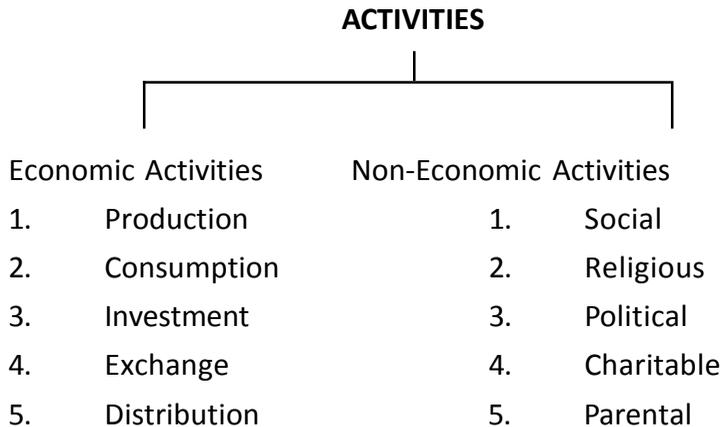
Q11. If  $\tan A = x \tan B$  then prove that  $\frac{\sin(A - B)}{\sin(A + B)} = \frac{x - 1}{x + 1}$

Q12. If  $\sin A = \frac{3}{5}$ ,  $0 < A < \frac{\pi}{2}$ ,  $\cos B = \frac{-12}{13}$ ,  $\pi < B < 3\frac{\pi}{2}$ , find  $\sin(A+B)$

**Summer vacation HOLIDAY HOMEWORK-**  
**ECONOMICS**

**Points to Remember**

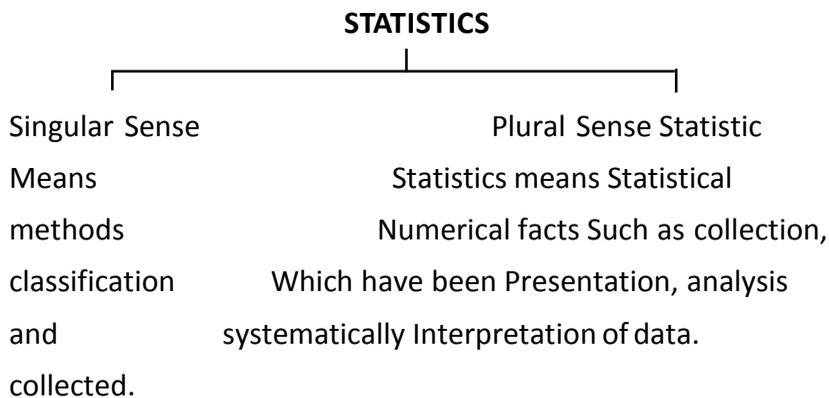
- \* Economics:
- \* Economics is a science that studies human behavior as a relationship between ends scarce means which have alternative uses.
- \* Scarcity means shortage of goods and resources in relation to their demand
- \* Resources are
  - (A) Scarce / limited and
  - (B) have alternative uses



- \* Economic activities are those activities which are associated to earn money and wealth for life. These activities generate new income and increase the flow of goods and services.
- \* Non economic activities are those activities which are not related to earn money and wealth. These activities neither generate income nor increase the flow of goods & services.
- \* Consumer : Consumer is an economic agent who buys the goods.

and services to satisfy his wants.

- \* Producer: is one who produces goods and services for the generation of income.
- \* Service holder: A person who is in job and gives his services as a factor of production to earn wage or salary. e.g. Govt. teacher.
- \* Service Provider: A person who provides services to final consumer to earn money e.g. transporter, auto driver.
- \* Statistics: Statistics is a method of taking decisions on the basis of numerical data.
- \* Statistics can be defined in two ways



### **Scope of Statistics**

In the olden days the use of statistics was restricted to deal with the affairs of the state. But now-a-days the scope of statistics has spread to all those areas where numerical facts are used such as economics, business, industry, medicine, physics, chemistry and numerous other fields of knowledge.

### **Importance of Statistics in Economics**

1. It enables an economist to present economic facts in a precise and definite form.

2. Helps in condensing mass data into a few numerical measures.
3. Statistics is used in finding relationship between different economic factors.
4. Economic forecasting through statistical studies.
5. Helpful to formulate appropriate economic policies that solve economic problems.
6. Help to analyze the performance of policies applied before.

### **Function of Statistics**

1. Statistics simplified complexities.
2. Statistics expresses facts in numbers.
3. Statistics presents data in condensed form.
4. Statistics compares different phenomena and reassures relationship between them.
5. Statistics is helpful in formation of policies.
6. Statistics is helpful in economic forecasting's.

### **Limitations of Statistics**

1. Statistics does not study individuals.
2. Statistics results might lead to fallacious conclusions.
3. Statistics deals with quantitative facts only.
4. Statistics laws are true only on averages.
5. Only experts can make the best possible use of statistics.
6. Uniformity and homogeneity of data is essential.

## Unit-I

### One-Mark-Questions

1. Define economics.
2. State the meaning of scarcity.
3. Write the meaning of statistics in plural sense.
4. Give meaning of statistics in singular sense.
5. State one limitation of statistics.
6. What do you mean by economic activity?
7. What are non-economic activities?
8. Write one function of statistics.
9. Define consumer.
10. Who is a producer?

### 3 Marks Questions

1. Briefly explain the term service holder and service provider with an example each.
2. What is the scope of statistics now a day?
3. Explain the importance of statistics in economics.
4. Distinguish between quantitative' and qualitative' data with example.
5. Production, consumption and distribution are economic activities.  
Explain.
6. Why do you want to study economics? Give reasons.
7. Which one of the following is economic activity? Give reason. (i) Transporting sand from river bank to a town.  
(ii) Attending marriage party.  
(iii) Parental love and affection towards their children.
8. Which one of the following is non-economic activity? Give reason.  
(i) Production of printing press machines to print newspapers. (ii) Service of doctor in a hospital.  
(iii) Organization of free medical checkup camp.

## CLASS-XI

### UNIT-II Consumer's Equilibrium

#### Very short type of questions (1 mark each)

1. What is utility?
2. Define indifference curve.
3. What is meant by consumer's equilibrium?

4.State the conditions of consumer’s equilibrium in case of single commodity.

5.What do you mean by rational consumer?

6.Define budget line.

**Short type of questions – Average type questions: (3 to 4 marks)**

1.Explain consumer’s equilibrium with single commodity.

2.Define Marginal utility. State the Law of Diminishing Marginal utility.

3.Why is an Indifference curve is convex to the origin?

4.What is the relationship between marginal utility and total utility?

5.Give two properties of indifference curve.

6.When budget line rotates and shifts? Explain by using diagram.

7.State the Law of diminishing utility and its assumptions.

**Long answer type questions(HOTS) (6 marks)**

1.Explain the conditions of consumer’s equilibrium by IC analysis.

2. Briefly explain consumer’s equilibrium in case of two commodities.

3. Explain Marginal rate of substitution with the help of diagram and schedule.

**Project work**

- All students are advised to prepare your practice files during your SUMMER BREAK.

**DATESHEET OF CLASS XI FOR UT-1**

DATE	UT-1
15-Jul-19	CHEMISTRY/ ECONOMICS
16-Jul-19	PE / PAINTING/ I.P / C .SCIENCE
17-Jul-19	PHYSICS/ B.STUDIES/GEOGRAPHY
18-Jul-19	MATHEMATICS/ BIOLOGY
19-Jul-19	ENGLISH
22-Jul-19	B. STUDIES/POL.SCIENCE

**UT-1**

**Syllabus of INFORMATICS PRACTICES**

**Chap-1 Computer System Organization**

**Chap-2 Getting started with Python**

**Chap-3 Python programming fundamentals**

**Chap-4 Conditional Constructs**

# PRTHON 3.0

**Using the Python interpreter** In our first code we are going to print “Hello World!” using the interpreter. To generate the output, type the following: `>>> print("Hello World!")` Hello World!

**Variables and Assignment:** In algebra, variables represent numbers. The same is true in Python, except Python variables also can represent values other than numbers.

**Identifiers:** While mathematicians are content with giving their variables one-letter names like x, programmers should

use longer, more descriptive variable names. Names such as sum, height, and sub\_total are much better than the equally permissible s, h, and st. A variable’s name should be related to its purpose within the program. Good variable names make programs more readable by humans. Since programs often contain many variables, well-chosen variable names can render an otherwise obscure collection of symbols more understandable. Identifiers have the

1. following form:
  - Identifiers must contain at least one character.
  - The first character must be an alphabetic letter (upper or lower case) or the underscore  
ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz\_
2. The remaining characters (if any) may be alphabetic characters (upper or lower case), the underscore, or a digit  
ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz\_0123456789
  - No other characters (including spaces) are permitted in identifiers.
  - A reserved word cannot be used as an identifier (see Table 2.1).
3. Here are some examples of valid and invalid identifiers:
4. All of the following words are valid identifiers and so can be used as variable names: x, x2, total, port\_22, and FLAG.
  - None of the following words are valid identifiers: sub-total (dash is not a legal symbol in an identifier), first entry (space is not a legal symbol in an identifier), 4all (begins with a digit), #2 (pound sign is not a legal symbol in an identifier), and class (class is a reserved word).
5. identifier), first entry (space is not a legal symbol in an identifier), 4all (begins with a digit), #2 (pound sign is not a legal symbol in an identifier), and class (class is a reserved word).

**Keywords and Identifiers:** The following identifiers are used as reserved words, or keywords of the language, and cannot be used as ordinary identifiers. They must be typed exactly as written here:

False	class	finally	is	return
None	continue	for	lambda	try
True	def	from	nonlocal	while
and	del	global	not	with
as	elif	if	or	yield
assert	else	import	pass	
break	except	in	raise	

**Reading input from the Keyboard** `input("String to show") // number = int(input("Enter an integer: "))`

**The eval Function :** The input function produces a string from the user’s keyboard input. If we wish to treat that input as a number, we can use the int or float function to make the necessary conversion:

`x = float(input('Please enter a number'))`

**Operators:** Operators are the symbols which tells the Python interpreter to do some mathematical or logical operation. Few basic examples of mathematical operators are given below:

`>>> 2 + 3` 5

`>>> 23 - 3` 20

**Expressions:** Generally while writing expressions we put spaces before and after every operator so that the code becomes clearer to: read, like  $a = 234 * (45 - 56.0 / 34)$

**Identifiers/variables** -Names given to any variable, function, class, union etc. Naming convention(rule) for writing identifier is as under:

- 1. Names of functions    2. Names of arrays    3. Names of variables    4. Names of classes**

- i) First letter of identifier is always alphabet.
- ii) Reserve word cannot be taken as identifier name.
- iii) No special character in the name of identifier except under score sign '\_'.

Here are some examples of acceptable identifiers:

- |                   |                 |                   |                   |
|-------------------|-----------------|-------------------|-------------------|
| <b>1.</b> mohd    | <b>5.</b> a_123 | <b>9.</b> J       | <b>12.</b> abc_rr |
| <b>2.</b> zara    | <b>6.</b> mynam | <b>10.</b> a23b9  |                   |
| <b>3.</b> abc     | <b>7.</b> e50   | <b>11.</b> retVal |                   |
| <b>4.</b> move_na | <b>8.</b> _temp |                   |                   |

**Some Facts About Identifier :**

1. It is name given to program element.
2. Identifier is the names are given by the programmer.
3. We can give any valid name to the identifier.
4. Keywords cannot be used as Identifier.
5. Only Alphabets, Digits and Underscores are permitted.
6. Identifier name cannot start with a digit.
7. Key words cannot be used as a name.
8. Upper case and lower case letters are distinct.
9. Special Characters are not allowed
10. Global Identifier cannot be used as "Identifier".
11. An identifier is used for any variable, function, data definition etc.
12. Other special characters are not allowed for naming a variable / identifier
13. PYTHON is case-sensitive so that Uppercase Letters and Lower Case letters are different
14. The name of identifier cannot begin with a digit. However, Underscore can be used as first character while declaring the identifier.
15. Only alphabetic characters, digits and underscore ( \_ ) are permitted in PYTHON language for declaring identifier.

**Q1. Classify each of the following as either a legal or illegal Python identifier:**

- |              |             |               |             |              |             |
|--------------|-------------|---------------|-------------|--------------|-------------|
| 1. fred      | #Keywords   | 8. #sum total | #Invalid    | 15. xTwo     | #identifier |
| 2. #if       | # Invalid   | 9. Sumtotal   | #identifier | 16. _static  | #identifier |
| 3. #2x       | #Invalid    | 10. While     | #identifier | 17. _4       | #identifier |
| 4. -4        | #Constant   | 11. x2        | #identifier | 18. ___      | #identifier |
| 5. sum_total | #identifier | 12. Private   | #Keywords   | 19. #10%     | #Invalid    |
| 6. sumTotal  | #identifier | 13. public    | #Keywords   | 20. a27834   | #identifier |
| 7. sum-total | #Expression | 14. # \$16    | #Invalid    | 21. #wilma's | #Invalid    |

**Q2. If x = 2 Indicate what each of the following Python statements would print.**

print("x")	1. x
print('x')	2. x
print(x)	3. 2
print("x + 1")	4. x + 1
print('x' + 1)	5. #Invalid
print(x + 1)	6. 3

**Q3. Find Output: if  $i1 = 2, i2 = 5, i3 = -3, d1 = 2.0, d2 = 5.0, d3 = -0.5$ ;**

1. $i1 + i2$	1. <code>print(i1 + i2)</code>	1. 7
2. $i1 / i2$	2. <code>print(i1 / i2)</code>	2. 0.4
3. $i1 // i2$	3. <code>print(i1 // i2)</code>	3. 0
4. $i2 / i1$	4. <code>print(i2 / i1)</code>	4. 2.5
5. $i2 // i1$	5. <code>print(i2 // i1)</code>	5. 2
6. $i1 * i3$	6. <code>print(i1 * i3)</code>	6. -6
7. $d1 + d2$	7. <code>print(d1 + d2)</code>	7. 7.0
8. $d1 / d2$	8. <code>print(d1 / d2)</code>	8. 0.4
9. $d2 / d1$	9. <code>print(d2 / d1)</code>	9. 2.5
10. $d3 * d1$	10. <code>print(d3 * d1)</code>	10. -1.0
11. $d1 + i2$	11. <code>print(d1 + i2)</code>	11. 7.0
12. $i1 / d2$	12. <code>print(i1 / d2)</code>	12. 0.4
13. $d2 / i1$	13. <code>print(d2 / i1)</code>	13. 2.5
14. $i2 / d1$	14. <code>print(i2 / d1)</code>	14. 2.5
15. $i1/i2*d1$	15. <code>print(i1/i2*d1)</code>	15. 0.8
16. $d1*i1/i2$	16. <code>print(d1*i1/i2)</code>	16. 0.8
17. $d1/d2*i1$	17. <code>print(d1/d2*i1)</code>	17. 0.8
18. $i1*d1/d2$	18. <code>print(i1*d1/d2)</code>	18. 0.8
19. $i2/i1*d1$	19. <code>print(i2/i1*d1)</code>	19. 5.0
20. $d1*i2/i1$	20. <code>print(d1*i2/i1)</code>	20. 5.0
21. $d2/d1*i1$	21. <code>print(d2/d1*i1)</code>	21. 5.0
22. $i1*d2/d1$	22. <code>print(i1*d2/d1)</code>	22. 5.0

**Q4. Find Output: if  $i2 = 5, i3 = -3, i1 = 2.0, d2 = 5.0, d3 = -0.5$**

1. $i1 + (i2 * i3)$	1. <code>print(i1 + (i2 * i3))</code>	1. -13
2. $i1 * (i2 + i3)$	2. <code>print(i1 * (i2 + i3))</code>	2. 4
3. $i1 / (i2 + i3)$	3. <code>print(i1 / (i2 + i3))</code>	3. 1.0
4. $i1 // (i2 + i3)$	4. <code>print(i1 // (i2 + i3))</code>	4. 1
5. $i1 / i2 + i3$	5. <code>print(i1 / i2 + i3)</code>	5. -2.6
6. $i1 // i2 + i3$	6. <code>print(i1 // i2 + i3)</code>	6. -3
7. $3 + 4 + 5 / 3$	7. <code>print(3 + 4 + 5 / 3)</code>	7. 8.666666666666666
8. $3 + 4 + 5 // 3$	8. <code>print(3 + 4 + 5 // 3)</code>	8. 8
9. $(3 + 4 + 5) / 3$	9. <code>print( (3 + 4 + 5) / 3)</code>	9. 4.0
10. $(3 + 4 + 5) // 3$	10. <code>print( (3 + 4 + 5) // 3)</code>	10. 4
11. $d1 + (d2 * d3)$	11. <code>print(d1 + (d2 * d3))</code>	11. -0.5
12. $d1 + d2 * d3$	12. <code>print(d1 + d2 * d3)</code>	12. -0.5
13. $d1 / d2 - d3$	13. <code>print(d1 / d2 - d3)</code>	13. 0.9
14. $d1 / (d2 - d3)$	14. <code>print(d1 / (d2 - d3))</code>	14. 0.36363636363636365
15. $d1 + d2 + d3 / 3$	15. <code>print(d1 + d2 + d3 / 3)</code>	15. 6.833333333333333
16. $(d1 + d2 + d3) / 3$	16. <code>print( (d1 + d2 + d3) / 3)</code>	16. 2.1666666666666665
17. $d1 + d2 + (d3 / 3)$	17. <code>print(d1 + d2 + (d3 / 3))</code>	17. 6.833333333333333
18. $3 * (d1 + d2) * (d1 - d3)$	18. <code>print(3 * (d1 + d2) * (d1 - d3))</code>	18. 52.5

**Q5. Write the shortest way to express each of the following statements.**

1. $x = x + 1$	<code>X+=1</code>
2. $x = x / 2$	<code>x/=2</code>
3. $x = x - 1$	<code>x-=1</code>
4. $x = x + y$	<code>x+=y</code>
5. $x = x - (y + 7)$	<code>x-=y+7</code>

6. $x = 2 * x$	$x * = 2$
<b>Q6. Program with Output:</b>	
pi = 3.14159;	Pi = 3.14159
print("Pi =", pi)	or 3.14 for short
print("or", 3.14, "for short")	Avogadro's number = 6.022e+23
avogadros_number = 6.022e23	Speed of light = 299800000.0
c = 2.998e8	
print("Avogadro's number =", avogadros_number)	
print("Speed of light =", c)	
print('A\nB\nC')	A
print('D\tE\tF')	B
print('WX\bYZ')	C
print('1\2\3\4\5\6')	D      E      F W X Y Z 1 2 3 4 5 6
print("Did you know that 'word' is a word?")	Did you know that 'word' is a word?
print('Did you know that "word" is a word?')	Did you know that "word" is a word?
print('Did you know that \'word\' is a word?')	Did you know that 'word' is a word?
print("Did you know that \"word\" is a word?")	Did you know that "word" is a word?
filename = 'C:\\Users\\rick'	C:\Users\rick
print(filename)	Please enter some text:
print('Please enter some text:')	Hi Mr Ravi
x = input()	Text entered: Hi Mr Ravi
print('Text entered:', x)	Type: <class 'str'>
print('Type:', type(x))	
print('Please enter an integer value:')	Please enter an integer value:
x = input()	91
print('Please enter another integer value:')	Please enter another integer value:
y = input()	32
num1 = int(x)	91 + 32 = 123
num2 = int(y)	
print(num1, '+', num2, '=', num1 + num2)	
x = input('Please enter an integer value: ')	Please enter an integer value: 23
y = input('Please enter another integer value: ')	Please enter another integer value: 43
num1 = int(x)	23 + 43 = 66
num2 = int(y)	
print(num1, '+', num2, '=', num1 + num2)	
num1 = int(input('Please enter an integer value: '))	Please enter an integer value: 12
num2 = int(input('Please enter another integer value: '))	Please enter another integer value: 45
print(num1, '+', num2, '=', num1 + num2)	12 + 45 = 57
x1 = eval(input('Entry x1? '))	Entry x1? 12
print('x1 =', x1, ' type:', type(x1))	x1 = 12 type: <class 'int'>
x2 = eval(input('Entry x2? '))	Entry x2? 21
print('x2 =', x2, ' type:', type(x2))	x2 = 21 type: <class 'int'>
x3 = eval(input('Entry x3? '))	Entry x3? 122
print('x3 =', x3, ' type:', type(x3))	x3 = 122 type: <class 'int'>
x4 = eval(input('Entry x4? '))	Entry x4? 43

print('x4 =', x4, ' type:', type(x4))	x4 = 43 type: <class 'int'>
x5 = eval(input('Entry x5? '))	Entry x5? 2.2
print('x5 =', x5, ' type:', type(x5))	x5 = 2.2 type: <class 'float'> Please enter number 1, number 2: 12
num1, num2 = eval(input('Please enter number 1, number 2: ')) print(num1, '+', num2, '=', num1 + num2)	Please enter number 1, number 2: 12,12 12 + 12 = 24
print(eval(input()))	2
print('A', end='')	A
print('B', end='')	B
print('C', end='')	C
print()	X
print('X')	Y
print('Y')	Z
print('Z')	
w, x, y, z = 10, 15, 20, 25	10 15 20 25
print(w, x, y, z)	10,15,20,25
print(w, x, y, z, sep=',')	10152025
print(w, x, y, z, sep='')	10:15:20:25
print(w, x, y, z, sep=':')	10-----15-----20-----25
print(w, x, y, z, sep='-----')	
x = 6	6
print(6)	6
print("6")	
x = 7	7
print(x)	x
print("x")	
value1 = eval(input('Please enter a number: '))	Please enter a number: 3
value2 = eval(input('Please enter another number: '))	Please enter another number: 2
sum = value1 + value2	3 + 2 = 5
print(value1, '+', value2, '=', sum)	
x, y, z = 3, -4, 0	
x = -x	
y = -y	
z = -z	
print(x, y, z)	-3 4 0
print(-(4 - 5))	1
print(10/3, 3/10, 10//3, 3//10)	3.3333333333333335 0.3 3 0
print(10%3, 3%10)	1
print(10.0/3.0, 3.0/10.0, 10.0//3.0, 3//10.0)	1 3 3.3333333333333335 0.3 3.0 0.0
one = 1.0	one = 1.0 one_third = 0.3333333333333333 zero =
one_third = 1.0/3.0	1.1102230246251565e-16
zero = one - one_third - one_third - one_third	
print('one =', one, ' one_third =', one_third, ' zero =', zero)	
one = 1.0	one = 1.0 one_tenth = 0.1 zero =

one_tenth = 1.0/10.0	1.1102230246251565e-16
print('one =', one, ' one_tenth =', one_tenth, ' zero =', zero)	
print(-3 + 2)	-1
print(-(3 + 2))	-5
dividend, divisor = eval(input('Please enter two numbers to divide: '))	Please enter two numbers to divide: 3,5
print(dividend, '/', divisor, "=", dividend/divisor)	3 / 5 = 0.6
value = eval(input('Please enter a number to cut in half: '))	Please enter a number to cut in half: 32
print(value/2)	16.0
degreesF = eval(input('Enter the temperature in degrees F: '))	Enter the temperature in degrees F: 23
degreesC = 5/9*(degreesF - 32);	23 degrees F = -5.0 degrees C
print(degreesF, "degrees F =", degreesC, 'degrees C')	
seconds = eval(input("Please enter the number of seconds:"))	Please enter the number of seconds:43
hours = seconds // 3600 # 3600 seconds = 1 hours	0 hr, 0 min, 43 sec
seconds = seconds % 3600	
minutes = seconds // 60 # 60 seconds = 1 minute	
seconds = seconds % 60	
print(hours, "hr,", minutes, "min,", seconds, "sec")	
seconds = eval(input("Please enter the number of seconds:"))	Please enter the number of seconds:45
hours = seconds // 3600 # 3600 seconds = 1 hours	
seconds = seconds % 3600	
minutes = seconds // 60 # 60 seconds = 1 minute	
seconds = seconds % 60	
print(hours, ".", sep=":", end="")	
tens = minutes // 10	0:00:45
ones = minutes % 10	
print(tens, ones, ":", sep=":", end="")	
tens = seconds // 10	Enter the temperature in degrees F: 24
ones = seconds % 10	24 degrees F = -17.77777777777778 degrees C
print(tens, ones, sep =":")	
degreesF, degreesC = 0, 0	
degreesC = 5/9*(degreesF - 32)	
degreesF = eval(input('Enter the temperature in degrees F: '))	
print(degreesF, "degrees F =", degreesC, 'degrees C')	
x1 = 2	3
x2 = 2	1
x1 += 1	
x2 -= 1	
print(x1)	
print(x2)	