Holidays Homework

Class XI

BUSINESS STUDIES

Q1. Write the name of form of business organization found only in India.

Q2. Name two types of business in which sole proprietorship is very suitable.

Q3. Name the person who manages a Joint Hindu Family business.

Q4. Write the names of systems which govern membership in Joint Hindu Family business.

Q5. Enumerate the two conditions necessary for formation of Joint Hindu Family business.

Q6. What is the minimum no. of persons required to form a co-operative society?

Q7. Explain the meaning of unlimited liability.

Q8. Name the type of co. which must have a minimum paid up capital of 5lakhs.

Q9. What is meant by minimum subscription?

Q10. Identify a company which has no restriction on transfer of shares.

Q11. For which of the following types of business do you think a sole proprietorship firm of organization would be more suitable, and why?

(i) Grocery store

(ii) Medical store

(iii) Legal consultancy

(iv) Craft centre

(v) Internet cafe

(v) Internet cafe

(vi) Chartered accountancy firm

Q 12. For which of the following types of business do you think a partnership firm of organization would be more suitable, and why?

(i) Grocery store

(ii) Medical store

(iii) Legal consultancy

(iv) Craft centre

(v) Internet cafe

(vi) Chartered accountancy firm

Q13. Explain the following terms in brief:

(i) Perpetual succession

(ii) Common seal

(iii) Karta

(iv) Artificial person

Q14. Compare the status of a minor in a Joint Hindu Family Business with that in a partnership firm.

Q15. Distinguish between a Joint Hindu family business and partnership.

Q16. Explain the concept of mutual agency in partnership with suitable example.

Q17. Name the type of company which two persons can start.

Q18. Shiv, Anandi& John were partners John died in a car accident Both Shiv& Anandi decided to admit his son Ryan who was 16 years old aspartner. Can they do so ? Justify.

Q19. Mr. Singh is in 'lighting' business for the post 15 years. To help his friend, MrYadav, a beginner he projected himself as a partner before Mohd. Abdul, a whole sale dealer of fancy lights. Mohd. Abdul gave Mr. Yadavthe stock without asking for payment and gave him credit limit of one month. Will Mr. Singh be liable to Md. Abdul if Mr. Yadav does not pay him on time? Classify Mr. Singh's role here along with an explanation.

Q20.Akriti, Sonam&Supreeti were friends who started a partnership business. They did not get their firm registered as it was optional. Soon,

Sonam & Supreeti started having conflicts. Sonam wanted to approach a   lawyer. If you were a lawyer than how would you guide her?

Q21. Differentiate between private co. and public company.

Q22. Which form of business is suitable for following types of business and why?

(a) Beauty Parlour

(b) Coaching Centre for science students

(c) Hotel

(d) Shopping mall

(e) Restaurant

 (f) Small retail business.

Q23. Dhirubhai Chaurasiya operates a textile business. His family is joint and has a lot of ancestoral property. All the 15 family members are a part of this business. He is the eldest male member in the family so he heads the business. He is liable to all the creditors of the business as he is the decision maker. Dhirubhai's grandson has just born a few days ago and he is also the member of the business.

(a) Which form of business is being undertaken by Dhirubha Chaurasiya?

(b) Identify the features of this form of business based on the information given.

(c) Textile business is part of which type of industry according to you?

Q24. "Every day Amul collects milk from 2.12 million farmers (many illiterate) & converts the milk into branded packaged products & delivers goods all over the country. The story of Amul started in Dec, 1946 with a group of farmers been to free themselves from intermediaries, gain access to the market & there by ensure maximum returns for their efforts"

(a) From the above information, identify the form of business organization used by Amul.

(b) Also quote the line which suggest its features?

(c) According to you, Amul is part of which type of industry?

Q25. Mohan, Shan and Rajesh are brothers living in a village Mohan is a farmer. He grows sugar cane in his field sohan is manufacturer of sugar who is doing the business with his friends Rohan Singh and Jitender. Ramesh is a transporter. He sells the sugar in the city using his truck. This year the sugar got spoiled due to heavy rain. Shan his friends reduced the wages of his workers to cut down their losses.

1. Classify the business activity undertaken by Mohan & Rajesh.

2. What form of business is Shan doing with his friends. Write any two features of the form?

3. Which value is violated by Shan& his friends?

4. What type of business risk is faced by them? Explain

Q26. Classify the below given business into different types of industries:
a.   Crude oil business
b.   producing steel from iron ore
c.   Cosmetics manufacturing
d.   producing computers
e.   construction of dams.

Q27. In business activities, there are some activities that are involved in the removal of hindrances in process of exchange i.e. from the producer to the consumer Identify them. Also classify the activities which help in removing the following hindrances:
(i)Hindrance of place
(ii)Hindrance of risk
(iii)Hindrance of time
(iv)Hindrance of finance
(v)Hindrance of information

Q28. Different situations in different business are being elaborated below. Which characteristic of business is being referred to in all these cases:
a.   Raghunath Gorkha had a match stick factory in Nepal which got destructed by the recent earthquake.
b.   Mr Arya, a senior manager in a telecom company shared confidential information about the company with a competitor which led to huge losses for the company.
c.   Vodafone Co. was charged with evasion of tax and asked to pay fine in cross which would lead to heavy losses for the company.

Q29. Dr. Kumar is an orthopedic surgeon in Jaipur Golden Hospital and DrMahajan, his friend is a Pediatrician who has set his own clinic. Dr Mahajan's wife, Ms. Rajni operates her Jewellery store. Compare & differentiate the nature of tasks undertaken by them.

PRABHU DAYAL PUBLIC SCHOOL

Holiday Homework

Class-XI (2023-24)

Subject-Chemistry

SOME BASIC CONCEPTS OF CHEMISTRY

1. The empirical formula and molecular mass of a compound are CH_2O and 180g respectively. What will be the molecular formula of the compound?

(a) $C_9H_{18}O_9$ (b) CH_2O (c) $C_6H_{12}O_6$ (d) $C_2H_4O_2$

2. State the law of multiple proportion and explain it with the help of an example.

3, An organic compound on analysis gave the following percentage composition; C=57.8%, H=3.6% and the rest is oxygen. The molecular mass of the compound was found to be 166. Find out the molecular formula of the compound.

4. Calculate the weight of carbon monoxide having same number of oxygen atoms as are present in 88g of carbon dioxide.

5. Calculate no. of mole in following –

(a) 5.6 g CO_2 (b) 74 g Ca $(OH)_2$ (c) 16 g CH_3OH (d) 30 g CH_3COOH

6. Calculate no. of oxygen atom in H_3PO_4 (6.023 × 103 molecule)

7. Calculate total no. of atoms in following - (a) 0.3 mole $(NH4)_2Cr_2O_7$

(b) 0.1 mole $H_2S_2O_8$ (c) 0.9 mole H_2SO_4 (d) 90 g $C_6H_{12}O_6$

8. Two elements A (at. wt. = 75) and B(at. wt. = 16) combine to give a compound having 75.8% of A. What is the formula of the compound ?

STRUCTURE OF ATOM

1. A photon of wavelength 4 X 10^{-7}m strikes on a metal surface, the work function of the metal being 2.1 eV. Calculate the energy of the photon, kinetic energy of the emission and the velocity of the photoelectron. (1eV= 1.6 X 10^{-19} J)

2. Calculate the frequency and energy associated with violet light of wavelength 400 nm.

3. Calculate the wave number for the shortest wavelength transition in the Balmer series of atomic hydrogen.

4. Yellow light emitted form a sodium lamp has a wavelength of 580 nm. Calculate the frequency and wave number.

5.What is the number of photons of light with wavelength 400 pm which provide 1J of energy.

6.The threshold frequency ν_o for a metal is 7×10^{14} s^{-1}. Calculate the kinetic energy of an electron emitted when radiation of $\nu = 1 \times 10^{15}$ s^{-1} hits the metal. Given $h = 6.6 \times 10^{-34}$ Js.

7.The energy of electron in hydrogen atom is given by $E_n = -2.18 \times 10^{-18}/n^2$ j. Calculate the energy required to remove an $-e$ completely from $n = 2$ orbit. What is the largest wavelength in cm of light that can be used to cause this transition.

8.Find the ratio of radius of 2nd orbit of it atom to 3rd orbit of Li^{2+} ion

9.Visible spectrum contains light of following colours''violet-indigo-Blue-green-yellow-range-Red'' (VIBGYOR). It's frequency ranges from violet (7.5×10^{14} Hz) to red (0.4×10^{14} Hz). Find out the maximum wavelength in this range.

HOLIDAYS HOMEWORK

COMPUTER SCIENCE

CLASS XI

Programming language-python

1. Revise all the topics covered in the class so far.
2. Write a short note on the following in CS notebook:-

   Conditional statements-if

   Looping statements-while and for

   Nested loops(while, for)

   Jumping statements

3. Practise python programs based on above mentioned topics.

PHYSICAL EDUCATION HOLIDAY HOMEWORK

CLASS – XI

Q1 What is the concept of physical education with its objectives ?

Q2 Define disability. World disability day is celebrated on ?

Q3 What is disorder ?

Q4 Explain the types of disabilities and disorder with its causes.

Q5 Explain the concept of adaptive physical education with its objectives.

Q6 Explain the meaning of physical fitness with its importance.

Q7 What is the difference bw physical fitness and wellness.

Q8 Briefly explain the components of physical fitness.

Q9 What is the difference bw kinesiology and biomechanics ?

Q10 Briefly explain the importance of kinesiology and biomechanics in sports.

Q11 Explain the types of body movements.

Q12 State psychology and sports psychology.

Q13 Write the note on adolescents need .

Q14 How adolescents problems can be managed ?

Holiday Home work

Class XI

Biology

1. Learn the concepts taught in class.
2. Read and understand the concept of taxonomy and systematics .
3. Solve HOTS questions from the chapter taught in class.
4. Complete writing down the practical exercises in record file.
5. Practice drawing the diagrams and labeling them.

*These questions are to be done in the class registers itself.

CH-4

ORGANISATION OF DATA

Q 1. Convert the following series into a simple frequency distribution:

Mid-value	5	15	25	35	45	55
Frequency	2	8	15	12	7	6

CH-5

TEXTUAL AND TABULAR PRESENTATION

Q 2. There were 160 persons in a trip organized by a school. Out of which 120 were students, 28 were teachers and 12 **(**all males**)** were peons. Out of total persons, 32 were females including two lady teachers. Present the above information in a table.

Q 3. In a sample study about coffee habits in two towns, following data were observed:

Town X: 52% persons were males, 25% were coffee drinkers, and 16% were male coffee drinkers.

Town Y: 55% persons were males, 28% were coffee drinkers, and 18% were male coffee drinkers.

Represent the above data in a tabular form.

Q 4. There were 80 persons in a trip organized by a school. Out of which 60 were students, 14 were teachers and 6 **(**all males**)** were peons. Out of total persons, 16 were females including one lady teacher. Present the above information in a table.

CH-6

DIAGRAMMATIC PRESENTATION OF DATA

Q 5. Represent the following data by a deviation bar diagram:

Year	2013	2014	2015	2016	2017	2018
Saving/Deficit (Rs. in'000s)	30	-20	10	15	-25	20

Q 6. Represent the following data, using a pie diagram:

Brands of Sets	Samsung	LG	Panasonic	Sony	Total
Units sold in Panipat	480	360	240	120	1,200

Units sold in Ambala	600	500	400	300	1,800

Q 7. Represent the following data, using a percentage bar diagram:

Items of Expenditure	Food	Clothing	House Rent	Fuel and Lighting	Total
Family A	480	360	240	120	1,200
Family B	600	500	400	300	1,800

Q 8. Represent the following data by a simple bar diagram:

Year	2014	2015	2016	2017	2018
Strength of the School	500	600	500	700	750

CH-7

FREQUENCY DIAGRAMS

Q 9. Draw the 'less than' and 'more than' ogives on the same graph:

Weekly Wages (Rs.)	0-20	20-40	40-60	60-80	80-100
Number of Workers	10	20	40	20	10

Q 10. Draw the 'less than' and 'more than' ogives on the same graph:

Marks	0-20	20-40	40-60	60-80	80-100
Number of Students	40	51	64	38	7

CH-8

TIME SERIES GRAPHS

Q 11. The table shows the exports and imports of a country in different years:

Years	2011	2012	2013	2014	2015	2016	2017
Exports (in Rs. crores)	300	350	400	380	450	280	250
Imports (in Rs. crores)	420	460	600	480	550	450	400

Represent the data graphically using Arithmetic-Line-Graphs.

Q 12. The table shows the population (in '000s) of men and women in a village in different years:

Year	2012	2013	2014	2015	2016	2017	2018
Number of Men	10	13	15	14	17	18	21
Number of Women	12	18	16	17	20	22	24

Represent the data graphically using Time-Series-Graphs.

Prabhu Dayal Public School

Class XI (Political Science)

HOLIDAYS HOMEWORK (2023-24)

I. Watch these documentaries on the Constitution Making process of India and write a reflection in your own words.

https://youtu.be/-A-CMKHXTiI

https://youtu.be/atSSN6ZLzXQ

(To be done in your notebook)

II. Design a Political Campaign for a fictional candidate contesting in an election. Create a Poster for the campaign with the help of suitable slogans.

Instructions

1. Activity should be done on A4 size sheet.
2. Content should be original
3. Creativity must speak from your work
4. Decoration with recycled material will be highly appreciated

III. Read the newspaper regularly especially the editorial.

IV. Read & Revise the syllabus for PWT – I.

UNITS

Q1. Define Astronomical Unit.

92. How many kg are there in 1 a.m.u?

Q3. Given: Wavelength=6000 A^0. Express it in nm.

Q4. The density of a material is 0.8 g/cm^3. Express it in kg/m^3?

Q5. What is the difference between mN, Nm, nm?

Q6. How many parsecs are there in 1 Light Year?

Q7. How many Astronomical units are there in 1 m?

Q8. A dust particle weighs 6.7×10^{-10} kg. How many such dust particles would weigh 6.7 kg?

SIGNIFICANT FIGURES

Q1. Find the number of significant figures in the following:

1) 9.11×10^{-31} kg	4) 6371 km	7) $0.53\ A^0$
2) 7.0030 cc	5) 80.0 s	8) 0.00427 g
3) 123.7 m	6) 0.23×10^{-3}	9) 80.0

Q2. Round of the following to three significant figures:

(i) 20.968 m   (iii) 0.003156 kg

(ii) 2.914 m/s   (iv) 411.27 m^2

Q3. State the rules for significant figures followed in the mathematical operations of:

1) Multiplication or Division

ii) Addition or Subtraction

Q4. Find the value of the following upto appropriate significant figures:

(i) 3.27+33.5472   (iii) 2.02 x 23

(ii) 53.312-53.3   iv) 3.908 × 5.5

Q5. A cubic millimetre of blood sample on microscopic examination is found to have 5×10^6 corpuscles. If an adult person contains 2.5 litres of blood, find the order of total number of red corpuscles in it.

Q6. The diameter of a sphere is 2.34 cm. Calculate its surface area and the volume with

due regard significant figures given that, $\pi= 3.14$.

Q7. A bus covered a distance of 182 km from Delhi to Roorkee in 5.5 hours. What is the average speed? Express it in appropriate number of significant figures.

DIMENSIONS

Q1. Time period of an oscillation of drop of radius 'r', density 'ρ' and surface tension 'S' is:

$$T = k (\rho r^3)/S$$

Check the correctness of the equation.

Q2. Check the accuracy of the equation,

$$\lambda = h/(mv^2)$$

Where letters have their usual meanings.

Q3. Find the dimensions of (α/β) in the equation,

$$P=(\alpha-t^2)/\beta x$$

where 'P' is the pressure, 'x' is the distance and 't' is the time.

Q4. In the equation $F = \alpha/(\beta+d)$, find the dimensions of α and β, where 'F' is force and d'

is density.

Q5. If the velocity of light 'c', the constant of gravitation 'G' and Planck's constant 'h' be chosen as the fundamental units, find the dimensions of mass, length and time in the new system.

Q6. Show dimensionally that the frequency 'v' of a transverse waves in a string of length

'I' and mass per unit length 'm' and under tension 'T' is given by,

$$v=k\, T/(I\, m)$$

07. The coefficient of viscosity (η) of a gas depends on the mass 'm', the effective diameter 'D' and mean speed 'v' of the gas molecules. Use dimensional analysis to find η.

METHODS OF MEASUREMENT

Q1. What is the value of the following in Radian:

i) 1°   (ii) 1'   (iii) I''

Q2. Angular diameter of sun, as observed by a scientist from the surface of earth is 32'.

What is the diameter of Sun? Given that mean distance of earth from the sun is 1 AU having a value of 1.5×10^{11} m.

Q3. A Laser signal is beamed towards the planet Venus from Earth and it's echo is received 8.2 minutes later. Calculate the distance of Venus from the Earth at that time.

Q4. When the planet Jupiter is at a distance of 824.7 million km from the Earth, the angular diameter is measured to be 35.72" of arc. Calculate the diameter of the Jupiter.

Q5. Light from the Sun takes 8 minutes and 20 seconds to reach the Earth. Calculate the radius of Earth's orbit round the sun in light years.

Q6. The angle subtended by moon at a point on Earth is 0°31'. If the distance of moon from Earth is 3.84×10^8 m, find the diameter of the moon.

Q7. When the observations are taken at an interval of 6 months, the angle of parallax for a star is 0.4". Find the distance of the star in Parsec.

DIMENSIONAL ANALYSIS

Q1. Find the dimensional formulae of,

   i)   Kinetic Energy
   ii)   Pressure

Q2. Find the dimensions of constants 'a' and 'b' occurring in the Vander-Wall's equation,

$$(P+a/V^2)(V-b)=RT$$

Where P is pressure, V is the volume, T is the absolute temperature and a, b. R are constants.

Q3. The Rotational Kinetic Energy of a body is given by $E =(1/2) I\omega^2$, where 'ω' is the angular velocity of the body. Use the equation to obtain dimensional formulae for moment of inertia I. Also write it's SI Unit.

Q4. Find the value of 60 W on a system having 100 g, 20 cm and 1 min as the Fundamental Units.

Q5. By the method of dimensions, find the value of acceleration of 8 m/s^2 into km/h^2?

Q6. Assuming that escape velocity 'v_e' from a planet depends upon Gravitational Constant 'G', Radius 'R' of the planet and also it's density 'ρ', establish a relation for escape velocity.

MOTION IN A STRAIGHT LINE

Case Study Based Questions

Following questions are case study-based questions. Each question has five sub parts of multiple-choice questions.

Q.1. In the absence of air resistance, all bodies falls with same same acceleration near the surface of the earth. This motion of a body falling towards the earth from a small height is called free fall. The acceleration with which a body falls is called acceleration due to gravity and it is denoted by g.

(i) For a freely falling body, which of the following equation is incorrect.

(a) $h-ut = (1/2) gt^2$ (c) $h = (1/2)ut+gt^2$

 (b) $v^2 - u^2 =2gh$ (d) $(v-u)/g = t$

(ii) The maximum height attained by a body thrown vertically upward with initial velocity u is:

 (a) $h=u^2/2g$ (c) $h=u^2/g$

(b) $h=u/2g$ (d) $h= 2u^2/g$

(iii) The time of ascent of a body thrown vertically upward with initial velocity u is

(a) t= u/2g   (c) t= u²/g

(b) t= u/g   (d) t= u/g²

(iv) The total time of flight to come back to the point of projection of a body thrown vertically upward with initial velocity u is

(a) t= 2u/3g   (c) t= 2u/g

(b) t= u/2g   (d) t= u²/2g

(v) Velocity of fall at the point of projection of a body thrown vertically upward with initial velocity u is,

(a) v= u   (c) v = 3u

(b) v= 2u   (d) v = 4u

Q.2. If the position of an object is continuously changing w.r.t. its surrounding, then it is said to be in the state of motion. Thus, motion can be defined as a change in position of an object with time. It is common to everything in the universe. In the given figure, let P, Q and R represent the position of a car at different instant of time

```
        R              O                        Q          P

--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|- X-axis –

   160 -120 -80  -40   0    40   80  120  160  200  240  280 320  360 400 (inm)
```

(i) With reference to the given figure, the position coordinates of point P and R are

(a) P= (+360, 0, 0); R= (-120, 0, 0)   (c) P= (+360, 0, 0); R= (+120, 0, 0)

(b) P= (0, +360, 0); R= (-120, 0, 0)   (d) P= (0, 0, +360); R= (0, 0, -120)

(ii) Displacement of an object can be:

(a) Positive   (b) Negative

(c) Zero   (d) All of these

(iii) The displacement of car in moving from O to P and its displacement in moving from P to Q are

(a) +360 m and -120 m   (c) +360 m and +120 m

(b) -120 m and +360 m   (d) +360 m and -600 m.

(iv) If the car goes from O to P and returns back to O , the displacement of the journey is:

(a) 0 m   (c) 420 m

(b) 720m   (d) 340 m

(v) the path length of journey from O to P and back to O is

(a) 0m   (c) 360m

(b) 720m   (d) 480m

Q.3. The acceleration of an object is said to be uniform acceleration if its velocity changes by equal amount in equal interval of time, however small these time intervals may be. A particle is moving with uniform acceleration in x-direction, the displacement x of particle varies with time t as,

$$x = 4t^2-15t+25. \text{ m}$$

(i) The position of particle at t = 0,

(a)14m   (c) 20m

(b) 18m   (d) 25m

 (ii) Velocity of particle at t = 2 s

(a) -15 m/s   (b) 1 m/s

(c) 3 m/s   (d) 31 m/s

(iii) Acceleration of particle at t = 2 s:

(a) 0 ms^{-2} (d) 20 ms^{-2}

(b) 8 ms^{-2} (c) 10 ms^{-2}

(iv) The velocity of particle will become zero at time t equal to:

(a) 2.975 s   (c) 2 s

(b) 1.875 s   (d) 1s

(v) The particle has a uniform acceleration 'a 'when

(a) acceleration does not depend on time t

(b) acceleration depends on time t

(c) velocity changes by unequal amount in equal interval of time,

(d) None of these

Q.4.The time rate of change of position of the object in any direction is called speed of the object. If an object covers equal distances in equal intervals of time, then its speed is called uniform speed and if it covers unequal distances in equal intervals of time, then its speed is called non- uniform or variable speed. The ratio of the total distance travelled by the object to the total time taken is called average speed of the object. The speed may be positive or zero but never negative. The speed-time graph of a particle moving along a fixed direction is shown in following Fig.
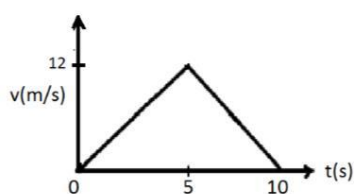
(i) Distance travelled by the particle between 0 to 10 seconds:

(a) 60 m

(c) 120 m

(b) 50 m

(d) zero

(ii) Average speed between time interval 0 to 10 s:

(a) 12 m/s

(c) 10 m/s

(b) 6 m/s

(d) 60 m/s

(iii) The time when the speed was minimum:

(a) at t = 0 s and t = 5 s

(c) at t = 0 s and t = 10 s

(b) at t = 5 s and t = 20 s

(d) at t = 5 s and t = 10 s

(iv) The time when speed was maximum

(a) t = 0 s

(c) t = 5 s

(d) t = 12 s

(d) t = 10 s

(v) Speed is positive at time interval:

 (a) t=0 to t=5s

(b) t=5 to t=10s

(b) t = 0 to t = 10 s

(d) All of these

Prabhu Dayal Public School

Class XI (Media Studies)

HOLIDAYS HOMEWORK (2023-24)

Title: Analyzing Media Content

Purpose: The purpose of this holiday homework activity is to help develop critical thinking skills when consuming various forms of media. The activity focuses on analyzing media content, identifying bias, and finding reliable sources of information.

Instructions:

1. Choose a media content that you are interested in. It can be a newspaper article, a TV show, a movie, a social media post, or any other media content.

2. Write a brief summary of the media content you have chosen.

3. Identify the purpose of the media content. Is it to inform, entertain, persuade, or educate?

4. Identify the target audience of the media content. Who is the content intended for?

5. Analyze the message of the media content. What is the message the content is trying to convey? Is it explicit or implicit?

6. Analyze the techniques used in the media content. What techniques are used to convey the message? Are there any visual or audio elements used?

7. Evaluate the effectiveness of the media content. Do you think the media content is effective in achieving its purpose? Why or why not?

8. Reflect on the impact of the media content. What impact does the media content have on its target audience and society as a whole?

9. Write a conclusion summarizing your findings.

Submission:

1. Activity should be handwritten.
2. Support your analysis with pictures, figures, facts.
3. The activity should be done on A4 size sheets
4. Decoration and Creativity should be kept in mind while analyzing the content.

Q1. Write the set A = { x : x ∈ R , $x^2 = 16$ and 2x = 6} in roster form.

Q2. Wrie down all the possible proper subsets of the set { 1 , {1} }.

Q3. If A = { x: x ∈ R, |x| < 1 } and B = { x: x ∈ R, |x-1| ≥ 1 }, then find A ∩ B and A ∪ B.

Q4. If X = { $4^n - 3n - 1$: n ∈ N } and Y = { 9(n-1) : n ∈ N }, then find A ∪ B.

Q5. In a town of 10000 families, it was found that 40% families buy newspaper A, 20% families buy newspaper B and 10% families buy newspaper C. 5% families buy newspapers A and B, 3% families buy newspapers B and C, 4% families buy newspapers A and C. If 2% families buy all the three newspapers, then find the number of families that buys newspaper

   (a) A only
   (b) B only
   (c) Exactly two of the three newspapers
   (d) None of the newspapers

Q6. A school awarded 58 medals for honesty, 20 for punctuality and 25 for obedience. If these medals were bagged by a total of 78 students and only 5 students got medal for all the three values, find the number of students who received medals in exactly two of the three values.

Q7. Find the domain and range of the function f(x) = $\frac{1}{x^2}$. Also draw its graph.

Q8. If A = {x,y,z} and B = {1,2} then find the total number of relations from A to B.

Q9. Write the relation R defined on the set N as { (a,b) : b - a = 3 } in roster form.

Q10. R = { (x,y) : x,y ∈ Z , $x^2 + y^2 \leq 8$ } . Find domain and range of R.

Q11. A = { x ∈ Z : 0 ≤ x ≤ 10} and R = { (a,b) : a = b , a,b ∈ A }. Are the following true:

   (a) (a,a) ∈ R for all a ∈ A
   (b) (a,b) ∈ R implies (b,a) ∈ R
   (c) (a,b) ∈ R , (b,c) ∈ R implies (a,c) ∈ R

Q12. Find the domain and range of f(x) = $\frac{x^2 - 16}{x - 4}$

Q13. Evaluate : $cos20°cos40°cos60°cos80^0$

Q14. Prove that $\dfrac{sec8x-1}{sec4x-1} = tan8x\ cot2x$

Q15. Prove that $sin18° = \dfrac{\sqrt{5}-1}{4}$

Q16. Prove that $tan\ A + tan\ (60°+A) - tan\ (60°- A) = 3\ tan3A$

Q17. Find the value of the expression: $\sin 10° \sin 50° \sin 70°$

Q18. If $\alpha + \beta = \dfrac{\pi}{4}$, then prove that $(1 + tan\ \alpha)(1 + tan\ \beta) = 2$

Q19. Prove that: $4 \sin x \sin \left(x + \dfrac{\pi}{3}\right) \sin \left(x + \dfrac{2\pi}{3}\right) = \sin 3x$

Q20. Find the value of the expression $\left(Cos\ \dfrac{\pi}{8}\right)^4 + \left(Cos\ \dfrac{3\pi}{8}\right)^4 + \left(Cos\ \dfrac{5\pi}{8}\right)^4 + \left(Cos\ \dfrac{7\pi}{8}\right)^4$

Note : IN ADDITION TO ABOVE PROBLEMS, KINDLY DO THE FOLLOWING:

(1) MISCELLANEOUS EXERCISE OF CH-3 ALONG WITH EXAMPLES IN YOUR NOTEBOOK.
(2) DEFINITION , GRAPH, DOMAIN AND RANGE OF ALL FUNCTIONS OF CH-2

INFORMATICS PRACTICES

CLASS XI

HOLIDAYS HOMEWORK 2023

Q. 1 WRITE PYTHON PROGRAMS FOR FOLLOWING:

1. Input name , class and date of birth of a student. Display his name with 'good morning' message and class with 'welcome' message.
2. Write a program in python to accept a character from the user and display whether it is a vowel or consonant.
3. Input principle , rate and time. Display simple interest and final amount.
4. Input two numbers in a and b. find a^b
5. Write a program in python to find the largest among three inputted numbers.
6. WAP using python to input cost and display selling price after increasing 25%
7. WAP using python to input age and display age after 15 years.

PRACTICAL FILE QUESTIONS

1. To input name and print it 10 times with hello message
2. To input weight in kg and print it in grams.
3. To input marks in 3 subjects.Calculate the average and display grades according to the given criteria:

Average	Grade
>=90	A+
<90 but >=75	A
<75 but >=50	B
<50 but >=33	D
<33	E

4. To find sale price of an item after inputting cost and profit (%). SP =CP + CP*profit/100
5. To calculate perimeter and area of a rectangle. Input length and breadth
6. To input two number. Display sum, difference, product,quotient,remainder depending on users choice.
7. To calculate profit-loss for given Cost and Selling Price with appropriate message

Q2. (a) What will be the output produced by the following code fragments-

w, x, y, z = 21, 2, 3, 21

```
print(w/4)

print(w//4)

print(x**y)

print(z%y)
```

(b) Predict the output-

```
x=100

x=x+100

x=x-5

 print(x)

x,y=x-5,190

print(x,y)
```

Q3. Solve the following :
 (a) 2 ** 3 ** 2   (b) 12%3 **4 //5 +6
 (c) -7 * 20 +8 /16 * 2 +54   (d) 7 ** 2 // 9 % 3
 (e) (7-4 *2) * 10 /5 ** 2 +15   (f) 5 %10 +10 -25 * 8 //5
Q4. Will the following expression solve or result in an error. Justify?
 'hello' * 2 -5
Q5. Differentiate between the following.
 (a) = and ==   (b) / and %   (c) / and //   (d) * and **

Q6. If the value of b is 7, give the answer of the following expressions:
 (a) b/6   (b) b//6   (c) b/4 (d) b%4   (e) b%7

 (f) b*2 (g) b**2

Q.7 Design a beautiful A4 SIZE POSTER on any of the given topics

 1. Python   XI E
 2. SQL   XI E
 3. Computer Network   XI E
 4. Cyber Safety   -----XI C
 5. Digital Society ,Law and Ethics --- XI C

REVISE THE SYLLABUS FOR PWT1

*NOTE: Q 1 TO 6   to be done in IP register

ग्रीष्मकालीन अवकाश गृहकार्य २०२३

कक्षा - ग्यारहवीं

विषय-हिंदी ऐच्छिक

प्रिय विद्यार्थीवृंद ,

जिस अवकाश का इंतज़ार आप सभी को था , वह झूमता-गाता आपके दरवाज़े पर आ खड़ा है। निश्चित रूप से अवकाश के ये दिन सभी को ख़ूब भाते हैं, ख़ूब आनंद देते हैं । कुछ उपयोगी काम करके यदि इन दिनों को यादगार बना लिया जाए तो फिर कहना ही क्या! मनोरंजन के साथ-साथ आपको ज्ञान का सुअवसर देते हुए प्रस्तुत कार्य आपके हित में होगा , ऐसी आशा है । मन लगाकर इस काम को को कीजिए।

प्रश्न–1. निम्नलिखित विषयों पर 100 – 150 शब्दों में दृश्य - लेखन कीजिए :

(क)   समुद्रतट पर बिताई एक अलबेली शाम

(ख)   एक मैच . (क्रिकेट , फुटबॉल, वॉलीबॉल, बैडमिंटन आदि)

(ग)   बोर्ड परीक्षा का पहला दिन

(घ)   वंदे भारत गाड़ी में एक दिन

प्रश्न-2. 'आजकल' भारत सरकार के प्रकाशन विभाग द्वारा लंबे समय तक हिंदी एवं उर्दू दोनों भाषाओं में प्रकाशित होने वाली पत्रिका का नाम है। यह पत्रिका हिंदी भाषा में भारत सरकार के प्रकाशन विभाग, पटियाला हाउस , नई दिल्ली से प्रकाशित होती है।

उपरलिखित पंक्तियाँ समझते हुए ' आजकल' पत्रिका पर रिपोर्ट तैयार कीजिए (Wikipedia)

प्रश्न-3. भारतीय त्योहारों पर टिप्पणी (Note) लिखते हुए एक चित्रात्मक परियोजना तैयार कीजिए।

विशेषः गृहकार्य के लिए अलग पुस्तिका बनाइए। अवकाश के दिनों में पढ़ाए गए पाठ्यक्रम की पुनरावृत्ति अवश्य कीजिए ।

Holiday Homework
Geography- XI

Project and Presentation

Prepare a project report on the topic- **Natural Hazards and Disasters**

(Chapter 7 of India Physical Environment Textbook)

Sub Topics- **Earthquakes/Tsunami/Tropical Cyclone/Floods/Droughts** (Select any one topic)

Outline of the project

- Introduction about hazard and disaster
- Define the disaster selected by you
- Causes
- Impact
- Risk reduction measures/ mitigation policy
- Maps

Important Instructions:

While preparing the project, the points to be kept in mind are:

♣ The project report should be handwritten.

♣ Use A4 size sheets.

♣ Project should have: cover sheet, index, introduction, conclusion, acknowledgement and bibliography/references.

♣ Use maps, pictures and relevant data for illustration.

Note: This project report is a part of internal assessment.

Theory Part

Geography Map File

❖ **Refer the Map list mentioned in the Geography Syllabus 2023-24 by CBSE for both Fundamentals of Physical Geography Textbook and India: Physical Environment Textbook**

Important Instructions

- Make the Map file on A 4 sheets
- Don't use red colour for headings or written work
- Map work should be accurate and neat strictly following the NCERT Textbooks

Practical Work

Important Instructions

- Do the Practical work on A4 sheets
- Don't use red colour for headings or written work
- Written work and diagrams should be neat and accurate

Practical Work in Geography Part –I NCERT Textbook

Chapter 1 –Introduction to Maps

Chapter 2- Map Scale

❖ **Revise the Covered Syllabus for PWT -I**

HOLIDAYS HOMEWORK- CLASS-11 (ENGLISH)

ALL THE WORK SHOULD BE DONE IN CLASSWORK NOTEBOOK

1) Select 2 passages, paste them in notebook and make notes, alongwith summary.
2) DRAFT POSTERS ON (any two)
- the ill effects of binging on junk food.
- ill-effects of plastics on the environment
- Blood donation camp
- Road Safety tips.
3) Paste 4 display advertisements in your notebook.

HOLIDAYS HOMEWORK

Class XI

ACCOUNTANCY

PART I

WRITTEN WORK

Chapters – 1 & 2: Introduction to Accounting & Basic Accounting Terms

Very short answer questions – 1 mark

1. What do you understand by "Accounting"?
2. What is the change in the role of an accountant?
3. What do you mean by Asset and liabilities?
4. Define capital of the company.
5. Define debtors and creditors of the company.

Short Answer Questions – 2 marks

1. To whom and for what process the accountant provides information?
2. Describe four nature of accounting.
3. Differentiate between Capital and working capital?
4. Distinguish between Expenses and expenditure of the company?
5. Differentiate between profit and gain?

Short answer questions – 3 marks

1. Explain reasons why users need accounting information.
2. Define in what way accounting is the sources of information.
3. What are the objectives of accounting?
4. What are the different roles of accounting?

5. Explain the types of information external users of accounting information are interested.

Long Answer Questions- 5 marks

1. What is the role of accountant in today's environment and how they help management?
2. Define all the four nature of accounting. Explain?
3. Define the branches of accounting. Explain?
4. Give details about the asset side of the balance sheet of the company.
5. Give details about the liabilities side of the balance sheet of the company.

Chapters – 3 & 4: Theory Base of Accounting & Bases of Accounting

Very short answer questions – 1 mark

1. What are the different bases of accounting?
2. How is the total amount of capital calculated?
3. Define accounting?
4. What are the basic accounting equations?

Short Answer Questions – 2 marks

1. What do you mean by accrual basis of accounting?
2. Explain Money Measurement Concept?
3. What are the 5 accounting concepts?
4. Explain Benefits of accounting standards?

Short answer questions – 3 marks

1. Define the concept of Dual Aspect.
2. Explain Three Limitations of Accounting Standards?
3. What is GAAP?

Long Answer Questions- 5 marks

1. State the differences between accrual basis of accounting and cash basis of accounting.
2. Why is it necessary for accountants to assume that the business entity will remain a going concern?
3. When should revenue be recognized? Are there exceptions to the general rule?

Chapter 5 Accounting Equation

1. Habib Ullah Sadiq is wholesale trader; following transactions are record in Accounting Equation?
i. Commence business with cash Rs. 200,000 and Land Rs. 50,000.
ii. Bought merchandising for cash Rs. 80,000.
iii. Cash sales of worth Rs. 25,000.
iv. Bought goods on credit from Salman of worth Rs. 50,000.
v. Sales on account to Ali Raza Rs. 12,000.
vi. Purchase furniture of the value of Rs. 5,000 by cash.
vii. Received cash form Ali Raza of Rs. 10,000.
viii. Return defective furniture of worth Rs. 1,500.
xi. Paid wages Rs. 1,000, Rent 2,000 and Electricity Bill Payable Rs. 1,500.

2. Muhammad Faizan Abid had the following transactions. Use accounting equation to show their effect on his Assets, Liabilities and Capital?
a) Invested Rs. 15,000 in cash.
b) Purchased securities for cash Rs. 7,500.
c) Purchased a home for Rs. 15,000: giving Rs. 5,000 in cash and the balance through loan account.
d) Sold securities costing Rs. 1,000 for Rs. 1,500.
e) Purchase an old car for Rs. 2,800 cash.
f) Received cash as salary Rs. 3,600.
g) Paid cash Rs.500 for loan and Rs. 300 for interest.
h) Paid cash for expenses Rs. 300.
i) Received cash for dividend on securities Rs.200.

3. Selected Transactions from Shah Transport Services began on June 1, 2016 by Zahid Shah as?
a. Zahid Shah invested Rs. 600,000.
b. Truck was Purchase by business for Rs. 430,000.
c. Equipment purchased on credit for Rs. 9,000.
d. A bill of Rs. 7,200 for transporting goods was sent to Mr. Ashraf Abbasi, a customer.
e. Cash of Rs. 6,000 is received from the customer who was billed in *d*.
f. Received Rs. 22,300 is cash for transporting goods.
g. A payment of Rs. 5,000 was made on the equipment purchased in *c*.
h. Paid expenses of different types for Rs. 1,700 in cash.
i. Equipment of Rs. 1,200 was withdrawn from business for Zahid Shah's personal use.
Required: Arrange the Assets, Liabilities and Owner's Equity accounts in an Accounting Equation, using the following account titles: Cash, Trucks, Equipment, Account Receivables, Account Payable and Owner's Equity:

4. Prove that the Accounting Equation is satisfied in all following transactions of Wajeeha Ejaz owner of business enterprises?
I. Started business with cash value of Rs. 500,000.

II. Rent paid in advance for a year Rs. 6,000.
III. Purchased merchandising inventory for cash Rs. 80,000 and on account Rs. 20,000 from Mr. Tahir.
IV. Purchased Marketable securities for cash Rs. 100,000.
V. Cash Sales Rs. 30,000 (cost 20,000).
VI. During the period rent expires Rs. 2,000.
VII. Commission paid during the trading was Rs. 1,000.
VIII. Received cash dividend Rs. 4,000 on marketable securities.
IX. Paid to Rs. 19,500 to Mr. Tahir in full settlement.
X. Withdrew inventory for personal purpose by owner of worth Rs. 6,000.

PART – II (To be mailed at neeruguptagoel@gmail.com)

CREATIVE CORNER

Make a small video on topic related to your course content of Accountancy (Class 11) . Students can work in group as well.

One video has been given below for reference.

 https://youtu.be/IH3ZxJwMZhk

PART – III (To be practiced in rough notebook)

Learn all the concepts of Theory chapters (Chapters 1 to 4). Practice all the illustrations of chapter 5. Test will be conducted after holidays.

Happy Learning!