



LOYOLA CONVENT SCHOOL RANCHI SESSION-2021-22

WINTER BREAK HOLIDAY HOMEWORK FOR CLASS-XI

Subject: Physics (042)

Q.1. Write any four activities (data table should be blank) from below given list of activities and prepare a stick file

Reference Book: Comprehensive Physics Practical Book

- i. To observe change of state and plot a cooling curve for molten wax.
- ii. To observe and explain the effect of heating on a bi-metallic strip.
- iii. To note the change in level of liquid in a container on heating and interpret the observations.
- iv. To study the effect of detergent on surface tension of water by observing capillary rise.
- v. To study the factors affecting the rate of loss of heat of a liquid.
- vi. To study the effect of load on depression of a suitably clamped metre scale loaded at (i) its end (ii) in the middle.
- vii. To observe the decrease in pressure with increase in velocity of a fluid

Q. 2. Solve subjective questions from NCERT Exemplar of chapters

(i) Mechanical properties of matter and (ii) Oscillations & Waves

Reference link: <https://ncert.nic.in/exemplar-problems.php?ln=>

Subject: Chemistry (043)

- Q. 1. State Boyle's law, Charle's law, Dalton's law, Avogadro's law with their proper mathematical expression/ equation.
 - Q. 2. State Kinetic molecular theory of gases and obtain van der Waal's gas equation.
 - Q. 3. Discuss the characteristics of surface tension and viscosity.
 - Q. 4. Define the terms: Extensive property, Intensive property, Open system, Closed system, Isolated system, State function with example.
 - Q. 5. State first law of thermodynamics with mathematical expression.
 - Q. 6. Define Acids and Bases on the basis of all 3: theories with examples.
 - Q. 7. Define Lechatelier's Principle and discuss the effect of temperature, concentration and pressure change on Equilibrium for a reversible reaction.
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Subject: Mathematics (041)

Q. A. Prepare the following activities

- 1.To find the number of ways in which three cards can be selected from given five cards
- 2.To construct different types of conic section.
- 3.An alternative method of constructing Parabola
- 4.To find the value of sine and cosine functions in second, third and fourth quadrants using their given values in first quadrant.
- 5.To explain the concept of octants by three by three mutually perpendicular planes in space
- 6.Prepare the list of all Trigonometric formula & learn

Q. B. Do the following questions:

- 1.Ex-28E Q. No 29 to44 by R. S. Agarwal
 - 2.Ex-31B Q. No10 to 21 by R. S. Agarwal
 - 3.Ex 3.3 Q. No, 12 to 25 by N. C. E. R. T
 - 4.Ex-7.3 Q. No 1to11 by N. C. E. R. T
 - 5.Ex-11.4 Q. No 1to15 by N. C. E. R. T
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Subject: Biology (044)

1. Give diagrammatic presentation of a standard ECG.
 2. Draw a well labelled diagram of human urinary system.
 3. Explain counter current mechanism diagram also.
 4. Explain mechanism of muscle contraction.
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Subject: English (301)

Q. 1. Write the following debates for or against the motion.

Q3. "ONLINE SMART CLASSES ARE THE FUTURE OF EDUCATION STYLE". Write a debate either for or against the motion. (150 – 200 words). (10)

Q4. 'Homes for the aged is a necessity in India '. Write a debate in 150- 200 words either for or against the motion. You are Shivam/ Shivani.

Q.2 Write the following posters given below:

As the manager of 'Excellent Coaching Centre' run by you, prepare a poster calling the attention of students desirous of attending IIT, CPMT coaching to join your coaching centre.

Q.3 Write the letter given below:

As the Head Boy of your school, write a letter to the Principal requesting him to make internet facilities available to students in the library.

Q.4 Write the summary and the poetic devices of the poem Childhood.

Subject: Accountancy (055)

1. Which accounting concept is applied when closing stock is valued at lower of cost or market price of goods?
2. Find the total assets of the firm, if the capital is Rs. 1,60,000 and liabilities are Rs. 40,000.
3. X, a CA earned Rs. 1,20,000 during the financial year 2019-20. Out of which, he received Rs. 1,05,000. He incurred an expense of Rs. 51,000, out of which Rs. 12,000 are outstanding. He also received his fees relating to previous year Rs. 13,500 and also paid Rs. 6,000 expenses of last year.
Find out X's income for 2019-20 following cash basis of accounting.
4. According to which principle, revenue is deemed to be realised at the time when sale is made?
5. Trader sells goods of list price Rs. 10,000 @ 5% trade discount and 2% cash discount. Calculate the net amount, if the payment will be made in cash.
6. Rent paid Rs. 56,000 through cheque. Out of which Rs. 16,000 treated as advance for the next year.
Journalise.
7. Pass journal entry to record dishonour of bill of exchange in the books of the drawer, when the same has been discounted by the bank.
8. X sold goods to Y for Rs. 2,00,000. Half of the amount will be received in cash and balance in bills receivable. For what amount, X should draw the bill on Y?
9. Define Expenditure. Explain types of expenditure.
10. Sundry Debtors is Rs. 30,000. After creating a provision for bad and doubtful debts @ 5% on sundry debtors, at what value the sundry debtors will be shown in the balance sheet?
11. Operating profit earned by Geet in 2019-20 was Rs. 8,50,000. Its non-operating incomes were Rs. 75,000 and non-operating expenses were Rs. 1,87,500.
Calculate profit earned during the year.
12. Calculate closing stock from the following details:

Opening Stock	Rs. 80,000
Cash sales	Rs. 2,40,000
Credit sales	Rs. 1,60,000
Purchases	Rs. 2,80,000
Rate of gross profit on cost 33.33%.	

13. The following trial balance was drawn up from the books of M/s Tarak Mehta:

Particulars	Rs.	Particulars	Rs.
Drawings	45,000	Capital	4,00,000
Plant and Fixtures	80,000	Sales	16,00,000
Purchases	11,60,000	Sundry Creditors	1,20,000
Carriage Inward	20,000	Bills Payable	90,000
Returns Inward	40,000		
Wages	80,000		
Salaries	1,00,000		
Printing & Stationery	8,000		
Advertisement	12,000		
Trade Charges	6,000		
Rent & Taxes	14,000		
Sundry Debtors	2,50,000		
Bills Receivable	50,000		
Investments	1,50,000		
Discount	5,000		
Cash at Bank	1,60,000		
Cash in Hand	30,000		
	<u>22,10,000</u>		<u>22,10,000</u>

The value of stock as at 31st March, 2021 was Rs. 2,60,000.

You are required to prepare Trading and Profit & Loss A/c for the year ended 31st March, 2021 and a Balance Sheet as on that date after taking the following facts into account.

- Interest on capital is to be provided at 6% p.a.
- An additional capital of Rs. 1,00,000 was introduced by Tarak Mehta on 1st October, 2020.
- Plant and Fixtures are to be depreciated by 10% p.a.
- Salaries outstanding on 31st March, 2021 amounted to Rs. 5,000.
- Accrued interest on investments amounted of Rs. 7,500.
- Rs. 5,000 are bad debts and a provision for doubtful debts is to be created at 5% of the balance of debtors.
- Interest charged on drawings at 10%.

Subject: Business Studies (054)

- Chapter-9 NCERT Long Answer Type Questions (Pg no. 227)
- Chapter-10 NCERT Long Answer Type Questions (Pg no. 256)
- Completion of Project Work of Term-2

Subject: Economics (030)

Holiday Homework Class 11 – Economics

- Complete your project
- Complete the following table with your daily data and calculate the correlation between the two variables. Comment on the answer

Day/ Date	Hours studied	Hours slept
28 th <u>tuesday</u>		
29 th <u>wednesday</u>		
30 th <u>thursday</u>		
31 st <u>friday</u>		
1 st <u>saturday</u>		
2 nd <u>sunday</u>		
3 rd <u>monday</u>		

- If you were a producer, you would like to operate in which type of market? Justify with reasons.
- Collect the height and weight of any ten of your friends and plot them on a scatter diagram to study their correlation.

Subject: Computer Science (083)

- Consider the following string mySubject:

```
mySubject = "Computer Science"
```

What will be the output of the following string operations :

- 1) `print(mySubject[0:len(mySubject)])`
- 2) `print(mySubject[-7:-1])`
- 3) `print(mySubject[:2])`
- 4) `print(mySubject[len(mySubject)-1])`
- 5) `print(2*mySubject)`
- 6) `print(mySubject[::-2])`
- 7) `print(mySubject[:3] + mySubject[3:])`
- 8) `print(mySubject.swapcase())`
- 9) `print(mySubject.startswith('Comp'))`
- 10) `print(mySubject.isalpha())`

II. Consider the following string myAddress:

```
myAddress = "WZ-1,New Ganga Nagar,New Delhi"
```

What will be the output of following string operations :

- 1) `print(myAddress.lower())`
- 2) `print(myAddress.upper())`
- 3) `print(myAddress.count('New'))`
- 4) `print(myAddress.find('New'))`
- 5) `print(myAddress.rfind('New'))`
- 6) `print(myAddress.split(','))`
- 7) `print(myAddress.split(' '))`
- 8) `print(myAddress.replace('New','Old'))`
- 9) `print(myAddress.partition(','))`
- 10) `print(myAddress.index('Agra'))`

III. What will be the output of the following statements?

- i. `list1 = [12,32,65,26,80,10]`
`list1.sort()`
`print(list1)`

- ii. `list1 = [12,32,65,26,80,10]`
`sorted(list1)`
`print(list1)`
- iii. `list1 = [1,2,3,4,5,6,7,8,9,10]`
`list1[::-2]`
`list1[:3] + list1[3:]`
- iv. `list1 = [1,2,3,4,5]`
`list1[len(list1)-1]`

IV. Consider the following list myList. What will be the elements of myList after the following two operations:

`myList = [10,20,30,40]`

- i. `myList.append([50,60])`
- ii. `myList.extend([80,90])`

V. What will be the output of the following code segment:

`myList = [1,2,3,4,5,6,7,8,9,10]`

`for i in range(0,len(myList)):`

`if i%2 == 0:`

`print(myList[i])`

Subject: Physical Education (048)

Q. 1. Draw a labelled diagram of Kho Kho court and 400 metre track.

Subject: Political Science (028)

Q.1. Complete Term-2 project work (to be done in project file). Choose anyone topic from below given topic list

- i. Are ethics followed in Indian politics?
 - ii. The Liberal Democracy
 - iii. Human Rights & its ratification in India
-

Subject: History (027)

Q. 1. Write a brief account on the following topics along with pasting the pictures.

(Prepare in a stick file)

The displaced communities or groups of people from:-

- i. India
 - ii. Africa
 - iii. America
 - iv. Australia
-

Subject: Geography (029)

1. Find out about the different cyclones which have affected the various countries.
 2. What was the effect of them?
 3. What are El Nino and La Nina?
 4. Their effect on the world climate.
-

Subject: Hindi (302)

- संघर्षों की जूझता पहाड़ी जीवन (पाठ – आरोहण)
 - बदलते समय के साथ बदलता जीवन
 - विश्लेषणात्मक व तथ्यात्मक प्रस्तुति
 - भौगोलिक स्थितियाँ, आपदाएँ
 - कारण और निवारण
 - आपकी भूमिका
 - समकालीन विषय
 - कोविड -19 और हम
 - भूमिका – क्या है, क्यों है आदि का विवरण
 - विभिन्न देशों में प्रभाव
 - भारत के साथ तुलनात्मक अध्ययन
 - कारण और निवारण
 - आपकी भूमिका/ योगदान/ सुझाव
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