



# LOYOLA CONVENT SCHOOL

Vidyalaya Marg, Dumardaga, Booty, Ranchi

Session: 2022-23

## HOLIDAY HOMEWORK OF WINTER VACATION CLASS – XI

### ENGLISH

Activity :

Try to concentrate on different issues or even you can go with one issue

1. Cut newspaper clippings regarding some issues based on Gender discrimination, Child labour, Climatic change, Corruption etc and paste it in your stick file.
2. Read any one novel suggested below and summarize it in 200-300 words.
  1. The Alchemist- Paulo Coelho
  2. Great Expectation- Charles Dickens
  3. Pride and prejudice:- Jane Austen
  4. Emma:- Jane Austen
  5. The Adventures of Huckleberry Finn:- Mark Twain

Or

Any other good novel  
(Do it in a stick file)

### MATHS

1. Limit-Ex-27A, Q. No 18,26,29,30,32,35,38,40  
.Ex-27B, Q. No 12,20,21,24,32,33,34,36,42,46,47.
2. Differentiation  
Ex-28A, Q. No, 6,8,10,11,12  
Ex-28B, Q. No 2,9,17,18,20  
Ex-28D, Q. No17, 21,22,25  
Ex-28E, Q. No, 29,30,31,32,33,34,36,41,42,43
3. Statistics  
Ex-30B Q. No 7,8,9.
4. Probability  
Ex-31B, Q. No, 9,10,12,13,14,15,16,17,18,19,20.  
Books by R. S. Agarwal

### ACTIVITY

1. To explain the concept of octants by three mutually perpendicular planes in space.
2. To write the sample space, when a coin is tossed once, two times, three times, four times.

### PHYSICS

Chapter: Thermal Properties of Matter:

11.6 A steel tape 1m long is correctly calibrated for a temperature of 27.0 °C. The

length of a steel rod measured by this tape is found to be 63.0 cm on a hot day when the temperature is 45.0 °C. What is the actual length of the steel rod on that day ? What is the length of the same steel rod on a day when the temperature is 27.0 °C ? Coefficient of linear expansion of steel =  $1.20 \times 10^{-5} \text{ K}^{-1}$

11.7 A large steel wheel is to be fitted on to a shaft of the same material. At 27 °C, the outer diameter of the shaft is 8.70 cm and the diameter of the central hole in the wheel is 8.69 cm. The shaft is cooled using 'dry ice'. At what temperature of the shaft does the wheel slip on the shaft? Assume coefficient of linear expansion of the steel to be constant over the required temperature range :

$$\alpha_{\text{steel}} = 1.20 \times 10^{-5} \text{ K}^{-1}$$

11.8 A hole is drilled in a copper sheet. The diameter of the hole is 4.24 cm at 27.0 °C. What is the change in the diameter of the hole when the sheet is heated to 227 °C?

$$\text{Coefficient of linear expansion of copper} = 1.70 \times 10^{-5} \text{ K}^{-1}$$

11.9 A brass wire 1.8 m long at 27 °C is held taut with little tension between two rigid supports. If the wire is cooled to a temperature of -39 °C, what is the tension developed in the wire, if its diameter is 2.0 mm ? Co-efficient of linear expansion of brass =  $2.0 \times 10^{-5} \text{ K}^{-1}$ ; Young's modulus of brass =  $0.91 \times 10^{11} \text{ Pa}$ .

11.10 A brass rod of length 50 cm and diameter 3.0 mm is joined to a steel rod of the same length and diameter. What is the change in length of the combined rod at 250 °C, if the original lengths are at 40.0 °C? Is there a 'thermal stress' developed at the junction ? The ends of the rod are free to expand (Co-efficient of linear expansion of brass =  $2.0 \times 10^{-5} \text{ K}^{-1}$ , steel =  $1.2 \times 10^{-5} \text{ K}^{-1}$  ).

Q. Do the Differentiation of Trigonometric Functions?

Q. Do the Anti Differentiation/integration of Trigonometric Functions?

### **CHEMISTRY**

1. Redox Reactions Ex Q 8.1, 8.2, 8.3, 8.18.

2. Hydrocarbons:- Ex Q 13.1, 13.3, 13.9, 13.11, 13.14, 13.21, 13.25,

3. Thermodynamics:- Ex Q 6.7, 6.11, 6.12, 6.13, 6.14.

Q: Draw a diagram to show Born-Haber cycle.

### **BIOLOGY**

Q1. Give diagrammatic presentation to show that respiratory pathway is an Amphibolic pathway.

Q2. Describe briefly

Arithmetic growth, geometric growth, sigmoid growth curve.

Q3. Distinguish between:

I. IRV and ERV

II vital capacity and total lung capacity

Q4 Briefly explain transport of gases.

### **ECONOMICS**

Statistics chapter 9: Measures of central tendencies: Mean

Essential practical Questions Exercise of your book: Solve Q. 1 to 20.

### **ACCOUNTANCY**

Q.1 What is meant by error of principle? Explain with examples.

Q.2 What is a suspense A/c? What is its utility?

Q.3 Explain two sided error with three examples.

Q.4 Explain one sided error with three examples.

Q.5 What is meant by rectification of error? Which types of errors are not disclosed by a Trial Balance?

Q.6 Rectify the following errors:

1. An amount of Rs. 4,000 was spent on the installation of plant, was debited to wages account.
2. Rs. 200 paid for proprietor's personal expenses were debited to Miscellaneous Expenses A/c
3. RS. 2,000 paid for annual white washing was debited to building account.
4. Goods costing Rs. 3,000, sales price ₹4,000 were distributed as free sample were not recorded
5. Salary paid to Gopi Rs.4,000 has been debited to wages A/c:
6. Received commission Rs.1,000 from Kumar & Co. was credited to them.
7. Travelling expenses paid Rs.2,500 for proprietor's pleasure trip has been charged to travelling expenses A/c

Q.7 The Trial Balance of Kumar was out by excess credit Rs.2,290. The difference was put to suspense A/c and following errors were subsequently discovered. Rectify them and prepare suspense A/c:

1. Goods costing Rs.500 had been returned by Rajesh. It is taken into stock but no entry has been passed.
2. Depreciation on plant Rs.2,000 has not been posted to depreciation A/c.
3. Mohan was paid Rs.4,000 but Sohan was wrongly debited by Rs.3,000..
4. An item of purchases of Rs.250 from Ram has been posted from purchases book to his account as Rs.550.
5. Goods sold to Amar Rs.1,000 has been passed through purchases book. however, account of Amar has been correctly debited.
6. Sale of Rs.540 to Raja was credited to him Rs. 450.
7. Sale of Rs. 1350 to Mohit was entered in the sales book as Rs.1530.

### **BUSINESS STUDIES**

Q.1 Prepare a questionnaire to find out the actual problems faced by an owner of small scale unit near you.

Q.2 Consider any company listed under BSE or NSE and do the paper trading of the same since 20<sup>th</sup> December 2022 to 2<sup>nd</sup> January 2023 with complete information like opening price, closing price, highest and lowest price of each day, with proper introduction of the selected company.

### **POLITICAL SCIENCE**

- 1) Write a report on conflict areas and tension areas in centre and state relations.
- 2) Which of the fundamental right is in your opinion the most important right. Summarize its provision and give argument to show why it is most important.
- 1) How is a bill converted into an act in the Indian Constitution. prepare a flowchart showing various stages.

### **GEOGRAPHY**

- 2) 1. Complete the practical work of the given chapters in the Geography practical file..
- 3) 2. Find about the important fishing grounds of the world , their position, and the fishes found there.
- 4) 3. Draw and label the warm currents with red, and cold currents in blue.

### **HISTORY**

Do some findings with various sources and write in detail about:

- a) The indigenous people of America.
- b) The Natives of Australia
- c) The original inhabitants of Bastar district of Chattisgarh.

### **HINDI**

#### **रचनात्मक लेखन**

- 1) कितना कुछ देती है प्रकृति
- 2) जब अचानक भू स्खलन हुआ
- 3) मोबाइल खेलों की बढ़ती लत

#### **पत्र**

- 1) आपके पत्रिक गांव में उच्च शिक्षण संस्थानों की कमी है। किसी प्रमुख हिंदी समाचार - पत्र के संपादक को पत्र लिखकर ग्रामीण क्षेत्रों में उच्च शिक्षण संस्थानों के अभाव का उल्लेख कीजिए और उन क्षेत्रों में उच्च शिक्षण संस्थान खोलने का सुझाव दीजिए।
- 2) आप अपने घर के पास स्थित मॉल में खरीदारी करने गए। खरीदारी करने के उपरांत आपने पाया कि आपकी स्कूटी निर्धारित स्थान पर नहीं है। थाना जाने पर आपकी शिकायत भी नहीं लिखी गई। पूरी जानकारी देते हुए क्षेत्र के पुलिस अधीक्षक को पत्र लिखें।

### **PHE**

1. Write a brief note on the event " QATAR FIFA WORLD CUP" 2022.
2. Complete your phe practical work according to the syllabus.
3. Write few line on the traditional games played in India (26 games) with picture pasting.

*Use stick files and interleaf A4 size paper.*

### **COMPUTER SCIENCE**

1. WAP in Python to find a number is prime or not.
  2. Write a program in Python to check whether a text is a Palindrome or not.
  3. Write a program in Python to print the Fibonacci Series.
  4. Determine whether a number is a perfect number, an armstrong number or a palindrome.
  5. Compute the greatest common divisor and least common multiple of two integers.
  6. Count and display the number of vowels, consonants, uppercase, lowercase characters in string.
  7. Input a string and determine whether it is a palindrome or not; convert the case of characters in a string.
- Use stick files and interleaf A4 size paper.*