

ST. FRANCIS XAVIER SCHOOL, KOLKATA

CLASS: XI C - C I

Practice Paper

**Instructions:**

Maximum marks for each of the subjects is 40 marks

Time allowed for each subject is 1 hr 30 min.

Answers should be written in the respective subject test copies.

**ACCOUNTS**

Answer Question 1 (compulsory) from Part I and any three questions from Part II. The intended marks for questions are given in brackets [ ].

**PART I (10 Marks)**

Answer all questions

**Question 1**

(2\*5=10)

- (i) What is the Accrual concept?
- (ii) Explain the meaning of the following terms with reference to the Bill of Exchange:
  - a. Renewal of bill
  - b. Retirement of the bill under rebate
- (iii) Define the Opening entry and state an example.
- (iv) Give two examples of Tailor-made software.
- (v) What is the consistency concept?

**PART - II (10\*3=30)**

**Question 2**

(6+4=10)

- (a) Akshat keeps his books on a single-entry system. From the following information given by him, ascertain his profit or Loss for the year ended 31<sup>st</sup> March 2021. His position on 1<sup>st</sup> April 2020 was as follows:

Plant and machinery Rs 30,000; Stock- Rs 5000; Cash in hand- Rs. 100, debtors – Rs 17,000; Loan from Mr. Anish Rs. 1,000 @4%p.a. interest; Bank Overdraft Rs. 1100; Creditors- Rs. 12,120.

On 31<sup>st</sup> March 2021, he owed his creditors Rs.9170 and had paid to Mr. Anish Rs. 500 in lieu of his loan on 1<sup>st</sup> October, 2020, but had paid no interest. He bought additional Plant and machinery which costs Rs. 13000. Debtors were Rs. 23,000 out of which Rs. 900 he would not be able to collect. The Cash and Bank Balance

was Rs. 4100. Stock at the end was valued at Rs.4500,.

Akshat withdrew Rs. 8300 for domestic purposes. He introduced further capital of Rs. 10,000 during the year.

(b) Redraft correctly the Trial balance given below :

Debit balances	Rs	Credit balances	Rs.
Capital	80,000	Debtors	75,800
Bad debts Recovered	2,500	Bank Deposits	27,500
Creditors	12,500	Discount Allowed	400
Returns Outward	3,500	Drawings	6,000
Bank Overdraft	15,700	Returns Inward	4,500
Rent	3,600	Sales	136,900
Salaries	8,500	Bills Payable	13,500
Trade expenses	3,000	Discount Received	10,000
Cash in hand	2,100		
Opening Stock	24,500		
Purchases	118,700		

**Question 4**

(5+5=10)

(a) Cash Book showed a balance of Rs 12,500. On comparing the Cash book with the Pass Book, the following discrepancies were noted:

Cheques issued but not yet presented for payment- Rs.6000

Cheques deposited in bank but not yet collected- Rs. 9000

Bank paid insurance premium- Rs. 5000

Bank Charges- Rs.300

Directly deposited by customer Rs. 8000

Interest on Investment collected by Bank- Rs. 2000

Anita sells goods to Binita for Rs.10,000. Binita accepts a bill for the amount for 3 months. Before the due date, Binita requests Anita to cancel the bill, to accept Rs. 3000 as part payment and to draw a fresh bill on her for Rs.7,200 for a further period of 2 months- Rs. 200 being the interest for the extended period. Anita agrees to the proposal. The new bill is duly honoured.

Pass necessary journal entries in the books of Anita

(b) On 1<sup>st</sup> January,2018 Jaipur Transport Company purchased a truck for Rs.800,000. On 1st July, 2019, this truck was involved in an accident and was destroyed and Rs 6,00,000 were received by a cheque from the Insurance Company in full settlement on 1<sup>st</sup> October,2019. On 1st July,2019, another truck was purchased by the company for Rs. 10,00,000. The company charges depreciation @20% per annum under the Written Down Value Method.

Prepare Truck Account and Depreciation Account for 2018 to 2020 when books of accounts are closed on 31<sup>st</sup> march every year.

---

**Question 3:**

(10)

Journalize the following transactions and draw up the ledger accounts:

2021	Paid into bank Rs. 21000 for opening Current Account.
April 1	
April 2	Withdrew for personal expenses Rs 5000
April 4	Withdrew from Bank Rs. 3000
April 5	Placed an amount in a Fixed deposit Account at Bank by transfer from Current Account Rs. 5000.
April 10	Received a cheque from Shiv and Co. to whom goods were sold for Rs. 3000. Allowed him @2% discount.
April 14	Shiv & Company's cheque deposited into bank.
April 16	Shiv & Co's cheque dishonored (Bank charges Rs. 10)
April 17	Shiv & Co. settled his account by means of a cheque for Rs. 3000, Rs 40 being interest charged.

## ECONOMICS

Question 1. [6+4]

- (a) In developed countries, salaries are higher than in underdeveloped countries, because workers are more productive. Do you agree with this statement? Write your observations using your knowledge of the relationship between human capital and productivity for economic development.
- (b) Highlight the main achievements in the health sector in recent years.

Question 2. [6+4]

- (a) "An economy always produces on, but not inside, a PPC", Defend or refute the statement with the help of an appropriate diagram.
- (b) Despite a variety of programmes and schemes to alleviate poverty, hunger, malnutrition, illiteracy, etc continue to be a common feature in many parts of India. Explain the possible reasons behind it

Question 3. [10]

- (a) Calculate Mean deviation and its coefficient for the following data:

Daily wages(in ruppes)	2-4	4-6	6-8	8-10
No of workers	20	40	30	10

- (b) Explain the effect of economic development on the environment.

Question 4. [10]

- (a) Calculate Karl Pearson's coefficient of correlation from the following data by short-cut method.

Price	20	19	18	17	16
Demand	2	3	4	6	7

- (b) Do you think a shift from subsistence farming to commercial farming is a useful proposition for the Indian farmers? Justify your answer.
-

**English**

Q1. Write a composition (450-500 words) Competition is necessary for success. Discuss. [10]

Q2. Critically analyze the short story "Salvatore" [5]

Q3. Read the extract given below and answer the questions that follow:

Boatswain : .....A plague upon this howling .

They are louder than the weather or our office

Who all are howling ? Why? Where are they ? [2]

Why is the Boatswain angry with them ?What does he ask them to do? [2]

Bring out the meaning of i) plague ii) our office. [1]

Q4. Bring out the significance of the conversation between Gonzalo and the Boatswain.(based on Act I Sc 1 till the portion taught) [5]

Q5. How did Salvatore spend his days before joining the Navy ? [5]

Q6. Salvatore played the role of an ideal husband and an ideal father in the later part of the story-Justify.

Q7. Transformation of Sentences [5]

A: Among his paintings, the most striking was the portrait of an old woman in the grip of poverty.

B: None .....

A: I would do anything in the world to make my mother happy. B: There's.....

A: Though Dinesh insulted him, Vikas was silent. B: Not a.....

A: Rohan was so terrified of being left alone in the house that he started screaming. B: So.....

A: I watch T.V. everyday. B: Hardly...

Question 8. Fill in the blanks with appropriate words. [5]

We took our new neighbour\_\_a spy.

Don't sit\_\_\_\_and waste your time.

Please look\_\_the word in the dictionary.

He impressed\_the students, the value of discipline.

The rich man fell\_\_\_\_thieves and he was left for dead.

-----

**MATHEMATICS**

Q1 a) Show  $8^{n-1} - 7n - 8$  is divisible by 49 using Binomial theorem. [2]

b) Find the number of ways of selection of 4 letters that can be made using the letters of the word "EXPRESSION". [2]

Q2. a) If a real valued function  $f(x) = x^{\frac{2+x+2}{x}}$ , find its domain and range. [4]

$$x^2+x+1$$

b) The probability that a student will pass the final exam in both Maths and Physics is 0.5 and the probability of passing neither is 0.1. If the probability of passing in Physics is 0.75, what is the probability of passing the Maths examination? [4]

Q3. Using Mathematical Induction, prove:  $3^{4n+2} + 5^{2n+1}$  is a multiple of 14,  $n \in \mathbb{N}$ . [4]

Q4. Find the equation of the circle passing through the points (2,3), (-1,1) and centre lying on  $x - 3y - 11 = 0$ . [4]

Q5. In an examination, a question paper consists of 12 questions divided into 2 parts – I, II, containing 5 & 7 questions respectively. A student is required to attempt 8 questions in all, selecting at least 3 from each part. In how many ways can a student select the questions?

[4]

Q6. i) Evaluate:  $\lim_{x \rightarrow 7}$

$$x \rightarrow 7$$

$$\frac{\quad}{4 - \sqrt{9+x}}$$

$$\frac{\quad}{1 - \sqrt{8-x}}$$

ii) Differentiate  $\sin(2x+3)$  with respect to 1<sup>st</sup> principle. [2+2=4]

Q7. a) Solve graphically:  $-x + 2y \leq 8$ ,  $2x - y \geq -4$ ,  $y \leq 8$ . [6]

b) Calculate mean and standard deviation: [6]

<b>Class</b>	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45
<b>Frequency</b>	2	2	2	7	12	6	3	3	3

---

## COMPUTER

### Question 1

(10)

Write a program in JAVA to enter binary equivalent of two different decimal numbers in two different single dimensional arrays and count the hamming distance. Assume that both the binary digits have the same length.

[ Hamming distance is defined as the comparison of binary digits of decimal numbers (base 10) from the same location. If both the digits are same then 'Hamming distance'=0 otherwise 1.]

1	1	0	0	1	0	0	1	1
	↑	↑		↑	↑		↑	
1	0	1	0	0	1	0	0	1

[Here the Hamming distance = 5]

Also display the decimal equivalent of these binary numbers.

Sample data:

INPUT : first decimal number = 110010011

second decimal number = 101001001

OUTPUT : Hamming distance = 5

Decimal equivalent of first number = 403

Decimal equivalent of second number = 329

### Question 2

(10)

A sentence in the Special Fashion can be printed by taking two integers (not beyond total number of words

in the sentence or less than 1). These integers tell the word number of the sentence. Replace only those words present at those given integer places by the next character in a circular fashion according to the English Alphabets. If both the integers are same then replace only one word.

Let us consider the following examples:

**Input Sentence:** He has good Books.

**Input Integers:** 2, 4

**Output Sentence:** Hc ibt good Cpplt.

(i.e. word number 2 and 4 have been replaced by the next characters in a circular fashion)

**Input Sentence:** Time and tide waits for none.

**Input Integers:** 3, 3

**Output Sentence:** Time and ujef waits for none.

Write a case sensitive program that reads a sentence from console (the characters of the sentence may be capital or small or mixed) and two positive integers and output the same sentence after replacing those words

present at those given integer places by the next character in a circular fashion according to the English Alphabets. In the first example given above, word number 2, i.e. "has" is replaced by next characters and so it

becomes "ibt". Similarly, word number 4, i.e. "Books" is replaced by next character and it becomes "Cpplt"

### Question 3

5

The following functions are part of some class:

```
void fun1(char s[],int x)
```

```
{ System.out.println(s);
```



```

    char temp;
    if(x<s.length/2)
    { temp=s[x];
      s[x]=s[s.length-x-1];
      s[s.length-x-1]=temp;
      fun1(s,x+1);
    }
    void fun2(String n)
    { char c[ ]=new char[n.length( )];
      for(int i=0;i<c.length; i++)
      c[i]=n.charAt(i);
      fun1(c,0);
    }

```

- (i) What will be the output of fun1( ) when the value of s[ ] = {'J','U','N','E'} and x=1? [2]  
(ii) What will be the output of fun2( ) when the value of n = "SCROLL" ? [2]  
(iii) State in one line what does the function fun1( ) do apart from recursion. [1]

#### Question 4

[5]

The following function Rec( ) is a part of some class. What will be the output of Rec( ) when the value of n is equal to 10. Show the dry run/working.

```

public void Rec(int n)
{
    if(n>1)
    {
        System.out.print(n+" ");
        if(n%2!=0)
        {
            n=3*n+1;
            System.out.print(n+" ");
        }
        Rec(n/2);
    }
}

```

#### Question 5

[10]

Given are the details-

**Class Name :** Point

**Member Data :**

x ( x coordinate)

y ( y coordinate )

**Member Function :**

Constructors : Default and Parameterized

void display() : display a point

double findDistance( Point ) : inputs a point as parameter and returns distance between current object and parameterized object them.

Point findMidPoint( Point ) : returns midpoint between current object and parameterized object.

Now write a main method that accepts two point and calculate its midpoint and distance between them with the help of above method.

---