BRAIN INTERNATIONAL SCHOOL

SUBJECT: ENGLISH   CLASS: XI   July,2021

The Landscape of the Soul

Q1. How was Quinten Metsys able to marry the painter's daughter?

Q2. What is the fundamental notion of Daoism?

Q3. What does a European painter want from the viewer?

The Laburnum Top

Q4. What is the significance of 'yellow' in the poem?

 Q5. Reference to Context:

Then sleek as a lizard, and alert, and abrupt,
She enters the thickness, and a machine starts up
Of chittering and a tremor of wings, and trilling
The whole tree trembles and thrills.

   a) Who is 'she' in the second line? Where does she enter?
   b) What does 'machine' refer to in the extract?
   c) Find a word from the extract which is the synonym of 'entire'.

Ranga's Marriage

Q6. What were Ranga's views about marriage at the beginning of the story?

Q7. Why and how did the narrator bring Ratna and Ranga closer?

Q8. How does the narrator describe Hosahalli village?

Writing Skills

Q9. You are the Director of Disaster Management Authority. You want to make people aware about earthquakes. Draw a poster for the same.

Q10. Write a suitable matrimonial advertisement for your smart, educated, good-looking daughter. Draft an advertisement for publication in the newspaper. You are Rajat/Radhika Sharma, resident of D-71, Karol Bagh, Delhi.

CHAPTER: ACCOUNTING PROCEDURES

1. Give the rule of debit and credit and explain them with the help of imaginary examples.
2. How modern classification is different from traditional classification? Explain with examples.
3. Classify the following into assets, liabilities, capital, revenue and expenses:
   Plant and Machinery, bank loan, sales, rent, discount received, carriage inward, bad debt, capital, purchases, wages, advance income, goodwill, outstanding expenses
4. On which side will be the decrease in the following accounts recorded? Also mention the nature of account:
   Cash, Bank Overdraft, Outstanding Rent paid, Prepaid Expenses, Owner of the business, Debtor, Creditor, Sales, Purchases, Interest paid.
5. Open a "T" shape account for machinery and put the following transactions on the proper side:

   Rs.

(i) Machinery purchased		40,000
(ii) Machinery sold		10,000
(iii) Depreciation on	2,000	
(iv) Old machinery discarded		5,000

CHAPTER : VOUCHER AND SOURCE DOCUMENT

1. What are source documents? What are its types?
2. What are accounting vouchers? Explain its types also.
3. Prepare debit voucher, credit voucher and transfer voucher from the source voucher based on the following transactions:

   2016

   Jan 1 Bought furniture from modern furniture's for cash vide Cash Memo No.240 of Rs 7,500
   Jan 5 Sold Leather purses for cash vide Cash Memo No.317- 320 of Rs 5,000
   Jan 10 Purchased goods from M/s john's &sons vide Bill No. 834 Rs 2,500.
4. Why is CGST,SGST and IGST paid on purchases debited to Input CGST Account, Input SGST Account, and Input IGST Account?

CHAPTER: JOURNAL ; LEDGERS AND TRIAL BALANCE

1. Journalise the following transactions in the books of Ram :
   i. Beena who owed Rs. 1,500 is declared insolvent and 65 paise in a rupee is received as final dividend from her estate.
   ii. Sold goods to Leela list price Rs. 2,000, trade discount 10% and cash discount 5%. She paid the amount on the same day.
   iii. Rent due to landlord Rs. 500.
   iv. Goods worth Rs. 10,000 were destroyed by fire.
   v. Commission received in advance Rs 13000.

2. Pass necessary Journal entry for the following transaction
   a. Started Business with cash Rs. 30,000 & Stock Rs. 40,000.
   b. Purchased furniture from Sohan for cash Rs. 6,000
   c. Rent prepaid is Rs. 2,000
   d. Commission received of Rs.10,000 plus CGST and SGST @6% each by cheque,half of the amount is in advance.
   e. Salary outstanding is Rs. 500
   f. Goods sold to Krishna costing Rs. 10,000 20% above cost + CGST & SGST @6% each.

3. Pass necessary journal entry for the following transaction.
  - ii. Goods given in charity Rs. 10,000
  - ii. Bad debts of last year Rs. 5,000 are now recovered
  - iii. Goods withdrawn by proprietor for personal use Rs. 6,000
  - iv. Depreciation charged on machinery Rs. 3,000
  - v. Amount due form kundan is Rs. 8,000 received from his official receiver, due to his insolvency 60 paisa in rupees only
  - vi. Rent outstanding is Rs. 3,000
  - vii. Insurance paid in advance Rs. 500
  - viii. Purchased motor cycle for his son Rs. 15,000

4. Satyam purchased from Sahil 500 items @Rs.200 each at 20% Trade Discount plus CGST and SGST @6% eachHe is further given 2% Cash Discount as he made payment for the purchase immediately.Determine the amount that Satyam will debit to Purchases Account.

5.Journalise the following transactions of Rajat,Delhi for April 2018,,post them into ledger and prepare trial balance.

2018		Rs.
April 1	Rajat started business with Cash	1,00,000
April 10	Paid wages & salaries	15,000
April 12	Bought goods for Cash	55,000
April 15	Sold goods to Rohan ,Delhi on credit	40,000
April 19	Bought goods from Surya,Luknow(UP)on credit	30,000
April 21	Goods returned to Surya	3000
April 21	Received cash from Rohan	20,000
April 25	Purchased Stationery for cash	6,000
April 27	Paid to Surya by cheque in full settlement.	25,000

CGST and SGST is levied @6% each on intra-state transactions andIGST @12% on Inter-state transactions

6. Prepare Trial Balance of from the following information:

Particulars	Rs.	Particulars	Rs.
Capital	1,00,000	Rent received	2,100
Drawings	17,600	Railway freight on sales	16,940
Purchases	80,000	Carriage Inward	2,310
sales	1,40,370	Office expanses	1,340
Purchases return	2,820	Printing & stationary	660
Stock on 1.1.2000	11,460	Postage & Telegram	820
Bad debts	1,400	Sundry Debtor	62,070
Bad debts reserves	3,240	Sundry Creditor	18,920
Rates & Insurance	1,300	Cash at bank	12,400
Discount received	190	Cash in hand	2,210
Bill receivable	1,240	Office furniture	3,500
Sales return	4,240	Salaries & commission	9,870
Wages	6,280	Addition to building	7,000
Building	25,000		

CHAPTER 4 (BUSINESS SERVICES)

1. Ragini has insured her house for Rs 5,00,000 against fire .There is a fire and Ragini suffers a loss of Rs, 1,00,000 . How much amount she can recover from the insurer?
2. What is life insurance ? When should the insurable interest be present in case of a life policy?
3. What is e-banking? Explain the range of services offered by e-banking?
4. Write the differences between life, fire and marine insurance on the basis of :
   a. Subject matter   b. insurable interest   c. surrender value
5. A person suffering from Asthma did not disclose this fact while taking a life insurance policy. Name the principle violated and explain it.
6. "In all types of insurance, insured must have insurable interest both at the time of insurance and at the time of loss." Do you agree?
7. Which principle of insurance is highlighted in the following statements?
   a. Insured should take the reasonable steps to minimise the loss.
   b. Insured is entitled to recover the loss suffered by him, up to the limit of policy amount.
   c. Insurer steps in the shoes of the insured.
8. Is life insurance a contract of indemnity? Explain

SUBJECT: ECONOMICS   **CLASS-XI**   **JULY'2020**

CHAPTER : PRESENTATION OF DATA

1) Describe the main parts of a table.

2) Which type of diagram will be used to show two or more characteristics of the data?

3) Which bar diagram is known as simple bar diagram?

4) Name the form of presentation to which the following example relates.

   40% of India's population lives below the poverty line and top 20% population commands 70% of the national income.

5) Briefly explain any four factors which should be kept in mind while preparing a table.

6) Rice yield per hectare is given below. Show the data diagrammatically.

Year	1999-2000	2000-2001	2201-2002	2002-2003	2003-2004	2004-2005	2005-2006
Yield per hectare(in kg)	668	1013	1123	1235	1336	1552	1482

7) Construct a pie diagram to represent the cost of construction of a house in Delhi.

Items	Labour	Bricks	Cement	Steel	Timber	Supervision
Expenditure (in %)	25	15	20	15	10	15

SUBJECT : MATHEMATICS   **CLASS : XI**   **JULY 2021**

CHAPTER : PMI , COMPLEX NUMBERS

Q1. Let P(n) be a statement ; $2^n < n, n \in N$. Show that statement is not true for any n.

Q2. If P(n) is a statement "$12n + 5$ is a multiple of 13". Show that P(2) is false whereas P(5) is true.

Q3. Using the principle of mathematical induction, prove that 3^{2n} when divided by 8, leaves the remainder 1, for all $n \in N$.

Q4. Using the principle of mathematical induction, prove that $2^{3n} - 1$ is divisible by 7 for all $n \in N$.

Q5. Using the principle of mathematical induction, prove that $\left(1 + \frac{1}{1}\right)\left(1 + \frac{1}{2}\right)...\left(1 + \frac{1}{n}\right) = (n + 1)$ for all $n \in N$.

Q6. Prove that $1 + 2 + 3 + ... + n < \frac{1}{8}(2n + 1)^2$, for all $n \in N$.

Q7. Using the principle of mathematical induction, prove that $41^n - 14^n$ is divisible by 27, for all $n \in N$.

Q8. Prove that $(1 + x)^n \geq 1 + nx$ for $x > 0, n \in Z^+$.

Q9. Using the principle of mathematical induction, prove that $1^2 + 2^2 + ... + n^2 > \frac{n^3}{3}$ for all $n \in N$.

Q10. Using the principle of mathematical induction, show that $n(n + 1)(n + 5)$ is natural number, for all $n \in N$.

Q11. Using the principle of mathematical induction, prove that $\frac{n^5}{5} + \frac{n^3}{3} + \frac{7n}{15}$ is a natural number, for all $n \in N$.

Q12. Prove that $2n + 7 < (n + 3)^2$ for all $n \in N$.

Q13. Using the principle of mathematical induction, prove that $\frac{1}{2} + \frac{1}{4} + \frac{1}{8} + ... + \frac{1}{2^n} = 1 - \frac{1}{2^{n-1}}$ $n \in N$.

Q14. Solve for $x : x^2 + 24 = 0$

Q15. Express, $\left(-\sqrt{3} + \sqrt{-2}\right)\left(2\sqrt{3} - i\right)$, in the form $a + ib$.

Q16. Represent the complex number $-1 - i$, in the polar form.

Q17. What is conjugate of, $\dfrac{\sqrt{5+12i} + \sqrt{5-12i}}{\sqrt{5+12i} - \sqrt{5-12i}}$?

Q18. Represent the complex number, $\dfrac{-4}{1+\sqrt{3}\,i}$ in polar form.

Q19. If $(1 + 2i)\,(2 + 3i)\,(3 + 4i) = x + iy$. Show that $x^2 + y^2 = 1625$.

Q20. If $a + ib = \dfrac{c+i}{c-i}$, where a, b, c are real, prove that, $a^2 + b^2 = 1$ and $\dfrac{b}{a} = \dfrac{2c}{c^2-1}$.

Q21. If $z = 1 + i$, evaluate $z^3 - 2\,z^2 + 3z - 4$.

Q22. If $4x + i\,(3x - y)$ is conjugate of $3 + 6i$ for $x, y \in R$, find $x\ and\ y$.

Q23. Where does z lies on plane if $\left|\dfrac{z-5i}{z+5i}\right| = 1$?

Q24. $|z_1| = |z_2| = |z_3| = 1$ show that $|z_1 + z_2 + z_3| = \left|\dfrac{1}{z_1} + \dfrac{1}{z_2} + \dfrac{1}{z_3}\right|$.

Q25. Find the square roots of $-16 + 30i$.

Q26. Find real θ, such that $\dfrac{3+2i\sin\theta}{1-2i\sin\theta}$ is purely real.

I.P. Assignment   Class-XI   July'2021

Ch-4: Working with Lists and Dictionaries

1. 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])
```

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

```
a. myList = [1,2,3,4,5,6,7,8,9,10]
   del myList[3:]
   print(myList)
b. myList = [1,2,3,4,5,6,7,8,9,10]
   del myList[:5]
   print(myList)
c. myList = [1,2,3,4,5,6,7,8,9,10]
   del myList[::2]
   print(myList)
```

3. Differentiate between append() and extend() functions of list.

4. Consider a list:

```
list1 = [6,7,8,9]
```

What is the difference between the following operations on list1:

```
a. list1 * 2
b. list1 *= 2
c. list1 = list1 * 2
```

5. The record of a student (Name, Roll No., Marks in five subjects and percentage of marks) is stored in the following list:

```
stRecord = ['Raman','A-36',[56,98,99,72,69],78.8]
```

Write Python statements to retrieve the following information from the list stRecord.

a) Percentage of the student

b) Marks in the fifth subject

c) Maximum marks of the student

d) Roll no. of the student

e) Change the name of the student from 'Raman' to 'Raghav'

6. Write a program to find the number of times an element occurs in the list.

7. Write a program to read a list of n integers (positive as well as negative). Create two new lists, one having all positive numbers and the other having all negative numbers from the given list. Print all three lists.

8. Write a function that returns the largest element of the list passed as parameter.

9. Write a function to return the second largest number from a list of numbers.

10. Write a program to read a list of elements. Modify this list so that it does not contain any duplicate elements, i.e., all elements occurring multiple times in the list should appear only once.

11. Consider the following dictionary stateCapital:

stateCapital =

{"AndhraPradesh":"Hyderabad","Bihar":"Patna","Maharashtra":"Mumbai","Rajasthan":"Jaipur"

}

Find the output of the following statements:

i. print(stateCapital.get("Bihar"))

ii. print(stateCapital.keys())

iii. print(stateCapital.values())

iv. print(stateCapital.items())

v. print(len(stateCapital))

vi print("Maharashtra" in stateCapital)

vii. print(stateCapital.get("Assam"))

viii. del stateCapital["Andhra Pradesh"]

print(stateCapital)

12. Write a Python program to find the highest 2 values in a dictionary.

13. Write a Python program to create a dictionary from a string.

Note: Track the count of the letters from the string.

Sample string : 'w3resource'

Expected output : {'3': 1, 's': 1, 'r': 2, 'u': 1, 'w': 1, 'c': 1, 'e': 2, 'o': 1}

14. Write a program to input your friends' names and their Phone Numbers and store them in the dictionary as the key-value pair. Perform the following operations on the dictionary:

a) Display the name and phone number of all your friends

b) Add a new key-value pair in this dictionary and display the modified dictionary

c) Delete a particular friend from the dictionary

d) Modify the phone number of an existing friend

e) Check if a friend is present in the dictionary or not

f) Display the dictionary in sorted order of names