St. Mary's School, Dwarka<br>Holiday Homework<br>Std. XII

Week 2
Worksheet 2

## Subject: English

## Q1. Read the following passage carefully.

1. Every profession or trade, every art and every science have its technical vocabulary, the function of which is partly to designate things or processes which have no names in ordinary English partly to secure greater exactness in nomenclature. Such special dialects or jargons are necessary in technical discussions of any kind. Being universally understood by the devotees of the particular science or art, they have the precision of the mathematical formula. Besides, they save time, for it is much more economical to name a process than to describe it. Thousands of these technical terms are properly included in very large dictionary, yet, as a whole, they are rather on the outskirts of the English language than actually within its borders.
2. Different occupations, however, differ widely in the character of their special vocabularies. In trades and handicrafts and other vocations like farming and fishing that have occupied great numbers of men from remote times, the technical vocabulary is very old. An average man now uses these in his own vocabulary. The special dialects of law, medicine, divinity and philosophy have become familiar to cultivated persons.

Based on the understanding of the passage, answer the questions given below. (1x5=5)
i) What is the role of technical vocabulary?
ii) State 2 advantages of using it.
iii) The writer of the passage is probably a
iv) Who does the phrase 'cultivated persons' refer to?
v) The word 'nomenclature' means
a. classification
b. bifurcation
c. perfunctory
d. declaration

Q2. The Literary Club of your school is putting up the play 'Waiting for Godot'. As secretary of the club, draft an invitation inviting the Senior journalist, Pranoy Roy to be the Guest of Honour at the function. Write the invitation in not more than 50 words. You are Sujit/ Ajita.

Q3. Girls in many parts of India are still discouraged from going to school. Consequently, a sizable section of the population is deprived of education. Schemes like Sarva Shiksha Abhiyan, CBSE scholarship to the single girl child and the Government's policy of giving free education to girls have come as a boon to our society. Write an article in 150-200 words on the education of the girl child in the country.

Q4. Design/ draw and paste picture of Japanese Kimono on an A-\$ size pastel sheet.
Answer the questions briefly in 30-40 words:
Q5. Why did her mother's face look like that of a corpse?
Q6. Why did Franz dread going to school?
Q7. What is Saheb looking for in the garbage dumps?

## Answer the following questions in 120-150 words.

Q8. What usual noises could be heard in the street when the school began? How was the scene in the school in the morning of the last lesson different from that on other days?

## Subject: Informatics Practices

## Instructions:

- Neatly write all the answers in your homework notebook.

Q1 Write the output of the following:
(i)
for i in ' 123 ':
print("retro99", i)
(ii)
for i in [100, 200, 300] :
print(i)
(iii)
for j in range $(10,6,-2)$ :
print (j * 2)
(iv)
for $x$ in range $(1,6)$ :
for y in range $(1, \mathrm{x}+1)$ :
print (x,' ', y)
(v)
for $x$ in range (10, 20):
if ( $\mathrm{x}==15$ ):
break
print (x)
(vi)
for x in range $(10,20)$ :
if ( $x \% 2==0$ ) :
continue
print (x)

Q2 How is break statement different from continue?

Q3 Write a program to find the sum of $1+1 / 8+1 / 27 \ldots \ldots .1 / n 3$, where $n$ is the number input by the user.

Q4 From a balance sheet of a company (choose any from your Accountancy book) and create lists for assets, liabilities and equity. Then write a program to check if accounting equation is balanced or not. The program should also calculate Return on

Total Assets as EBIT (Earning Before Interest and Taxes) / Total Net Assets and Debt/Equity ratio as Total Liabilities / Assets - Liabilities

Q5 Given a list $\mathrm{L} 1=[3,4.5,12,25.7,[2,1,0,5], 88]$ which function can change the list to:
(a) $[3,4.5,12,25.7,88]$
(b) $[3,4.5,12,25.7]$
(c) $[[2,1,0,5], 88]$

Q6 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

Q7 Complete the following code and predict the output:
\# Data to count.
names = ['tern', 'goose', 'goose', 'hawk', 'tern', 'goose', 'tern']
\#Build a dictionary of frequencies.
freq $=$ $\qquad$ \#creates an empty dictionary
for name in names:
\# Already seen, so increment count by one.
if $\qquad$ in $\qquad$ : \# check for existence of name in dictionary freq
freq[name] $=$ freq[name] +1 :
\# Never seen before, so add to dictionary.
else:

$$
\text { freq[name] = } 1
$$

\# Display.
print (freq)
Q8 Assume that price_dict is a Python variable to which a dictionary literal has already been assigned, and that it currently contains at least 10 key-value pairs.
(a) write an expression whose value would be the number of key-value pairs in price_dict
(b) write an expression that would be the value corresponding to the key 'avocados' in price_dict
(c) write an expression that would be a list of all of the keys within price_dict
(d) write an expression that would be a list of all of the keys values within price_dict
(e) write a statement that would replace the current value of the key apples' in price_dict with 1.99

Q9 What is the purpose of range() function? Give one example.
Q10 Write a program to read a list of n integers and find their median.

## Subject: Economics

Q1. How can externalities be a limitation of using Gross Domestic Product as an index of welfare?

Q2. Define money supply. What are it's main components?
Q3. Distinguish between domestic income and national income. When can domestic product be more than the national product?
Q4. Explain the basis of classifying goods into intermediate and final goods. Give suitable examples.

Q5. Give the meaning of factor income to abroad and factor income from abroad. Also give an example of each.
Q6. State whether the following is a stock or flow:
(a) Wealth, (b) Cement production, and (c) Saving of a household.

Q7. Are the following included in the estimation of National Income a country? Give reasons.
i. Bonus received by employees.
ii. Government expenditure on defence.
iii. Money sent by a worker working abroad to his family.

Q8. Are the following part of a country's net domestic product at market price? Explain
i) Net indirect tax
ii) Net export
iii) NFIA

Q9. Giving reasons classify the following into intermediate products and final products

1. Furniture purchased by a school.
2. Chalk, duster, etc, purchased by a school.

Q10. Giving reasons, explain the treatment assigned to the following which estimating national income.

## Subject: Mathematics

Q1. If. $\mathrm{A}=\left[\begin{array}{cc}3 & 1 \\ -1 & 2\end{array}\right]$, show that $\mathrm{A}^{2}-5 \mathrm{~A}+7 \mathrm{I}_{2}=\mathrm{O}$

Q2. If $\mathrm{A}=\left[\begin{array}{ll}1 & 2 \\ 2 & 1\end{array}\right], \mathrm{f}(\mathrm{x})=\mathrm{x}^{2}-2 \mathrm{x}-3$, show that $\mathrm{f}(\mathrm{A})=0$

Q3. If $A=\left[\begin{array}{c}-1 \\ 2 \\ 3\end{array}\right]$ and $B=\left[\begin{array}{lll}-2 & -1 & -4\end{array}\right]$, verify that $(A B)^{T}=B^{T} A^{T}$.

Q4. If $A=\left[\begin{array}{cc}\cos \alpha & \sin \alpha \\ -\sin \alpha & \cos \alpha\end{array}\right]$, then verify that $A^{T} A=I_{2}$.

Q5. Express the matrix $A=\left[\begin{array}{lll}3 & 2 & 3 \\ 4 & 5 & 3 \\ 2 & 4 & 5\end{array}\right]$ as the sum of a symmetric and a skew-symmetric matrix. 2

## CASE STUDY:

A manufacturer produces three stationery products Pencil, Eraser and Sharpener which he sells in two markets. Annual sales are indicated below:


| Market | Products (in numbers) |  |  |
| :---: | :---: | :---: | :---: |
|  | $\underline{\text { Pencil }}$ | Eraser | Sharpener |
| A | 10,000 | 2000 | 18,000 |
| B | 6000 | 20,000 | 8000 |

If the unit Sale price of Pencil, Eraser and Sharpener are Rs. 2.50, Rs. 1.50 and Rs. 1.00respectively, and unit cost of the above three commodities are Rs. 2.00, Rs. 1.00 and Rs. 0.50 respectively, then -

Based on the above information answer the following:
(1x5=5)
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1. Total revenue of market A
a. Rs. 64,000
b. Rs. 60,400
c. Rs. 46,000
d. Rs. 40600
2. Total revenue of market B
a. Rs. 35,000
b. Rs. 53,000
c. Rs. 50,300
d. Rs. 30,500
3. Cost incurred in market A
a. Rs. 13,000
b. Rs.30,100
c. Rs. 10,300
d. Rs. 31,000
4. Profit in market A and B respectively are
a.(Rs. 15,000, Rs. 17,000)
b.(Rs. 17,000 , Rs. 15,000 )
c.(Rs. 51,000 , Rs. 71,000)
d.( Rs. 10,000, Rs. 20,000)
5. Gross profit in both market
a. Rs. 23,000
b. Rs. 20,300
c. Rs. 32,000
d. Rs. 30,200

## Subject: Business Studies

Q. $1 \quad$ Why is Management concerned with efficient use of resources? 1
Q. $2 \quad$ Why is it said that management principles are behavioural? 1
Q. 3 "It provides the requisite amount, quality, timing and sequence of efforts which ensures planned objectives are achieved with a minimum conflict." Identify it.
Q. 4 McDonald company does not give its franchise to any other company which is running food business. State the type of plan involved.
Q. 5 Vrinda's business studies teacher instructed her to prepare a business studies project and submit it within 30 days. She did intensive research for the project and prepared an excellent project but failed to meet the deadline. Teacher appreciated her hard work but deducted 5\% marks for late submission. Do you think Vrinda is effective, efficient or both? Give reason.
Q. 6 Payal is the marketing manager of a company selling mobile phones. She plans the target sale of 2000 mobile phones per month. She allocates necessary resources to execute the plan. She has six salesmen working under her. She works with them, guiding and motivating them to achieve the target sales. At the end of the month, after comparison of actual sales with the target sales, she found that actual sales exceeded the target sales. She rewards the efficient employees in order to motivate them.
(a) Identify any three functions of management highlighted above by quoting the lines.
Q. 7 Aapka Vidyalaya believes in the holistic development of students and encourages team building through a mix of curricular, co-curricular and sports activities. On its Founder's Day, a stage performance had to be put up. A committee of ten prefects was constituted to plan different aspects of the function. They all decided to use recycled paper for decoration. There was a spirit of unity and harmony and all the members supported each other. With mutual trust and a sense of belonging, the programme was systematically planned and executed. Kartik, one of the prefects, realised that the group had unknowingly applied one of the principles of management while planning and executing the programme. He was so inspired by the success of this function that he asked his father to apply the same principle in his business. His father replied that he was already using this principle.
a. Identify the principle of management applied for the success of the programme.
b. State any two features of management highlighted in the above paragraph
Q. 8 The court passed an order that all schools must have water purifiers for the school children as i. Society, in general, is more concerned about quality of life.
ii. Innovative techniques are being developed to manufacture water purifiers at competitive rates.
iii. The government is showing positive attitude towards the water purifier business.
iv. Incomes are rising and children at home are also drinking purified water.

Identify the different dimensions of business environment by quoting from the above details.
Q. 9 "Coordination is needed at all levels of management and it is the responsibility of all managers."

Explain.
Q. 10 "In an Organisation, there needs to be a clear distinction in terms of the responsibilities of the staff depending upon their area of work." Which technique of Scientific Management is referred to here? Explain it briefly.

## Subject: Accountancy

Q. 1 Quick ratio of a company is 1.5 :1. State giving reason whether the ratio will improve, decline or not change on payment of dividend by the company. 1
Q. 2 What is Vertical Analysis?
Q. 3 Current ratio of Reliance Textiles Ltd. Is 1.5 at present. In future it wants to improve this ratio to 2 . Suggest any two-accounting transaction for improving the current ratio.
Q. 4 Why do we add back depreciation to net profit while calculating cash flow from operating activities?
Q. 5 Why prepaid expenses are not considered as liquid assets?
Q. 6 Explain the objectives of Analysis of Financial Statement.
Q. 7 From the given information, calculate the Inventory turnover ratio: Revenue from operations Rs. $5,00,000$, Gross Profit $25 \%$ on cost of revenue from operations, opening Inventory was $1 / 3 \mathrm{rd}$ of the value of closing Inventory. Closing Inventory was 30\% Of Revenue from operations. 3
Q. 8 Under which major head of the statement of profit and loss of a company following items will be shown:
(i) Sales
(ii) Sale of Scrap
(iii) Interest earned
(iv) Gratuity Paid
Q. 9 Calculate total assets to debt ratio from the following:

| Capital employed | $22,20,000$ | Equity Share Capital | $10,50,000$ |
| :--- | ---: | :--- | :---: |
| Current Liabilities | $1,80,000$ | $8 \%$ Debentures | $3,00,000$ |
| Fixed Assets | $15,00,000$ | Capital Reserve | $2,40,000$ |
| Accumulated depreciation | $2,00,000$ | Balance in Statement of P/L | $(30,000)$ |
| Non -Current Investment | $7,00,000$ | Cash and cash equivalent | $1,50,000$ |
| Trade Receivable | $2,50,000$ |  |  |

Q. $10 \quad$ i) Following Extracted information of Vinod Ltd. is available on 31st March 2021:

Particulars
2021
2020
10\% Non-current Investment
4,00,000
3,00,000

Additional Information:
$60 \%$ of the investment held in the beginning of the year were sold at a gain of $20 \%$. Interest received on investment at the end of the year 31st March 2021 Rs. $35,000$.
Find out Cash Flow from Investing Activities.
ii) Following Extracted information of Vinod Ltd. is available on 31st March 2021:

Particulars
Share Capital
Securities Premium Reserve
Bank Overdraft at the rate of $8 \%$ p.a.
Additional Information:
Bank overdraft was availed on 1st December 2020. Interest on Bank overdraft was paid on 31st March 2021.
Find out the Cash flow from Financing Activities.

