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SUMMER VACATION OF CLASS XII COMMENCES FROM 21.05.2024 TO 21.06.2024. THE SCHOOL WILL REOPEN ON 22.06.2024.

## **CLASS XII- HOLIDAYS HOMEWORK (2024-25)**

## **COMMERCE STREAM**

### **ENGLISH:**

Prepare a Project File on the assigned topic and guidelines by your respective English teacher.

## **MATHEMATICS:**

- What is the principal value of:  $\cos^{2\pi}(\cos^{2\pi}) + \sin^{-1}(\sin^{2\pi})$ 1.
- Find the principal value of:  $tan^{-1}(\sqrt{3})$   $sec^{-1}(-2)$ . 2.
- Evaluate:  $tan^{-1}(2\cos(2sin^{-1}(\frac{1}{2})))$ 3.
- Prove the following:  $\cos(\sin^{-1}\frac{3}{5} + \cot^{-1}\frac{3}{2}) = \frac{6}{5\sqrt{12}}$ 4.
- Find the value of cot  $\frac{1}{2} \left[ cos^{-1} \left( \frac{2x}{1+x^2} \right) + sin^{-1} \left( \frac{1-y^2}{1+y^2} \right) \right], |x| < 1, y > 0 \text{ and } xy < 1$ 5.
- Simplify:  $\cos^{-1}(\frac{3}{2}\cos x + \frac{4}{2}\sin x)$ 6.
- Prove that:  $\underline{\tan(\frac{\pi}{4} + \frac{1}{2} \cos^{-1}\frac{a}{b})} + \tan(\frac{\pi}{4} \frac{1}{2} \cos^{-1}\frac{a}{b}) = \frac{2b}{a}$ 7.
- Prove the following:  $\cot^{-1}\left[\frac{\sqrt{1+\sin x}+\sqrt{1-\sin x}}{\sqrt{1+\sin x}-\sqrt{1-\sin x}}\right] = \frac{x}{2}$ 8.
- Prove that:  $tan^{-1} \left[ \frac{\sqrt{1+x} \sqrt{1-x}}{\sqrt{1+x} + \sqrt{1-x}} \right] = \frac{\pi}{4} \frac{1}{2} Cos^{-1}x$ 9.
- Write the principal value of  $Cos^{-1}(cos(\frac{7\pi}{\epsilon}))$ 10.
- For what value of k, the matrix  $\begin{bmatrix} k & 2 \\ 3 & 4 \end{bmatrix}$  is invertible 11.
- Given  $A = \begin{bmatrix} 2 & -3 \\ -4 & 7 \end{bmatrix}$  Compute  $A^{-1}$  and show that  $2 A^{-1} = 9I A$ 12.
- Find the value of x such that the points (0,2), (1,x), (3,2) are collinear. 13.
- Given A=  $\begin{bmatrix} 1 & -1 & 0 \\ 2 & 3 & 4 \\ 0 & 1 & 2 \end{bmatrix}$  and B=  $\begin{bmatrix} 2 & 2 & -4 \\ -4 & 2 & -4 \\ 2 & -1 & 5 \end{bmatrix}$  verify that BA=6I, use the result to solve the system of 14. linear equations x-y=3, 2x+3y+4z=17, y+2z=7
- 15. Using matrices, solve the following system of linear equations:

$$x + 2y - 3z = -4$$

$$2x + 3y + 2z = 2$$

$$3x - 3y - 4z = 11$$

If A = Find  $A^{-1}$ . Hence solve the system of equations. 16.

$$x - y = 3$$
  
 $2x + 3y + 4z = 17$   
 $y + 2z = 7$ 

Find  $|A^{-1}|$  for the matrix  $A = \begin{bmatrix} 2 & 5 \\ 1 & 3 \end{bmatrix}$ 17.

18. If 
$$F(x) = \begin{bmatrix} \cos x & -\sin x & 0 \\ \sin x & \cos x & 0 \\ 0 & 0 & 1 \end{bmatrix}$$
 prove that  $[F(x)]^{-1} = F(-x)$ 

- The monthly incomes of Aryan and Babban are in the ratio 3: 4 and their monthly expenditures 19. are in the ratio 5: 7. If each save ₹ 15,000 per month, find their monthly incomes, using matrix method.
- The management committee of a residential colony decided to award some of its members (say x) for honesty, some (say y) for helping others and some others (say z) for supervising the workers to keep die colony neat and clean. The sum of all the awardees is 12. Three times the sum of the awardees for cooperation and supervision added to two times the number of awardees for honesty is 33. If the sum of the number of awardees for honesty and supervision is twice the number of awardees for helping others. Using matrix method, find the number of awardees of each category.

# Find $\frac{dy}{dx}$ for the following questions:

21. 
$$(x^2 - y^2)^2 = 4xy$$
.

21. 
$$(x^2 - y^2)^2 = 4xy$$
.  
22.  $sinxy + \frac{x}{y} = x^2 - y^2$ .

23. 
$$ax^2 + 2hxy + by^2 + 2gx + 2fy + c = 0$$
.

24. 
$$\log \log (x^2 + y^2) = 2\tan^{-1} \frac{y}{x}$$

23. 
$$ax^2 + 2hxy + by^2 + 2gx + 2fy + c = 0.$$
  
24.  $\log \log (x^2 + y^2) = 2tan^{-1}\frac{y}{x}.$   
25.  $x\sqrt{1+y} + y\sqrt{1+x^2} = 0.$  Show  $\frac{dy}{dx} = \frac{-1}{(x+1)^2}.$ 

26. 
$$y = \sin^{-1}(\frac{2^{x+1} 3^x}{1 + (36)^x})$$
.

27. 
$$x = a\cos\theta + b\sin\theta$$
,  $y = a\sin\theta - b\cos\theta$ . Prove  $y^2 \frac{d^2y}{dx^2} - x\frac{dy}{dx} + y = 0$ 

28. 
$$x = \sin t$$
,  $y = \sin pt$ , Prove  $(1 - x^2) \frac{d^2y}{dx^2} - x \frac{dy}{dx} + p^2y = 0$ 

## **ECONOMICS**

- Q-1. What is Reverse Repo Rate? How does the Central Bank use this measure to control inflationary situation in an economy?
- Q-2. What is money multiplier? What determines its value?
- Q-3. If LRR=20%, find the value of money multiplier?
- **Q-4.** State True or False. Give reasons.
- RBI produces money while commercial banks increase the supply of money. (a)
- Currency created by the Central Bank is called bank money. (b)
- Q-5. Explain the following functions of Central Bank: -
- Lender of last resort (i)
- (ii) Clearing House Function
- **Q-6.** Explain circular flow of income in 2-sector economy with the help of a diagram.
- Q-7. Distinguish between the following: -
- Capital Loss and Depreciation (a)
- (b) Stock and flow
- (c) Intermediate and Final Goods
- Commercial Bank and Central Bank (d)
- **Q-8.** Are the following included in National Income? Give reason.
- Gifts received from abroad. (a)
- Free meals given to employees. (b)
- Expenditure on feeding beggars. (c)
- (d) Rent received by an Indian resident from Russian embassy in India.

Q-9. Calculate Operating Surplus from the following data:-

Particulars	Rs. in crores
GDP at MP	900
Depreciation	50
NIT	30
COE	130
MISE	100

Q-10. Calculate GNP at MP by Expenditure method:-

Particulars	Rs. in crores
Inventory Investment	10
Exports	20
NFIA	(-)5
Personal consumption expenditure	350
Gross residential construction investment	30
Govt. purchase of goods and services	100
Gross public investment	20
Gross business fixed investment	30
Imports	10

## **ACCOUNTANCY**

1. Vinod and Mohan were partners in a firm. The partnership agreement provided that interest on drawings was to be charged @ 12% p.a. Vinod had withdrawn the following amounts during the year ended 31.3.2018.

Date	Amount withdrawn ₹
01.04.2017	10,000
30.06.2017	16,000
01.10.2017	20,000
31.03.2018	4,000

### Calculate interest on Vinod's drawings.

**2.** Arun and Arora were partners in a firm sharing profits in the ratio of 5: 3. Their fixed capitals as on 1.4.2010 were: Arun ₹ 60,000 and Arora ₹ 80,000. They agreed to allow interest on capital @ 12% p.a. and to charge on drawings @ 15% p.a.

The profit of the firm for the year ended 31.3.2011 before all above adjustments were ₹ 12,600. The drawings made by Arun were ₹ 2,000 and by Arora ₹ 4,000 during the year. Prepare Profit and Loss Appropriation Account of Arun and Arora.

Show your calculations clearly. The interest on capital will be allowed even if the firm incurs loss.

- **3.** A, B and C were partners in a firm. On 1st April 2012, their capitals stood at ₹ 5,00,000; ₹ 2,50,000 and ₹ 2,50,000 respectively. As per the provisions of the partnership deed:
- (i) C was entitled for a salary of ₹ 5,000 per month.
- (ii) A was entitled for a commission of ₹80,000 p.a.
- (iii) Partners were entitled to interest on capital at 6% p.a.
- (iv) Partners will share profits in the ratio of their capitals.

Net profit for the year ended on 31.03.2013 was ₹ 3,00,000 which was divided equally, without providing for the above provisions. Showing your workings clearly, pass necessary adjustment entry for the above.

- **4.** On March 31st, 2014, the balances in the capital Accounts of Ekta, Ankit and Chahat after making adjustments for profit and drawings were ₹ 1,50,000, ₹ 2,10,000 and ₹ 2,70,000 respectively. Subsequently, it was discovered that the interest on capital and drawings had been omitted.
- (i) The profit for the year ended 31st March, 2014 was ₹ 1,20,000.
- (ii) During the year Ekta withdrew ₹ 24,000 and Ankit and Chahat each withdrew a sum of ₹ 24,000

in equal instalments in the middle of each quarter.

- (iii) The interest on drawing is to be charged @ 5% p.a. and interest on capital is to be allowed @ 10% p.a.
- (iv) The profit-sharing ratio among the partners was 1:2:3.
- (v) Showing your working notes clearly, pass the necessary rectifying entry.
- **5.** Ajay, Binay and Chetan were partners sharing profits in the ratio of 3:3:2. The Partnership Deed provided for the following:
- (i) Salary of ₹ 2,000 per quarter to Ajay and Binay.
- (ii) Chetan was entitled to a commission of ₹ 8,000.
- (iii) Binay was guaranteed a profit of ₹ 50,000 p.a.

The profit of the firm for the year ended 31st March, 2015 was ₹ 1,50,000 which was distributed among Ajay, Binay and Chetan in the ratio of 2: 2: 1, without taking into consideration the provisions of Partnership Deed. Pass necessary rectifying entry for the above adjustments in the books of the firm. Show your workings clearly.

**6.** Seema, Tanuja and Tripti were partners in a firm trading in garments. They were sharing profits in the ratio of 5: 3:2. Their capitals on 1st April, 2012 were ₹ 3,00,000, ₹ 4,00,000 and ₹ 8,00,000 respectively. After the flood in Uttarakhand, all partners decided to help the flood victims personally.

For this, Seema withdrew ₹ 20,000 from the firm on 15th September, 2012. Tanuja instead of withdrawing cash from the firm took garments amounting to ₹ 24,000 from the firm and distributed those to the flood victims. On the other hand, Tripti withdrew ₹ 2,00,000 from her capital on 1st January, 2013 and provided a mobile medical van in the flood affected area.

The partnership deed provides for charging interest on drawings @ 6% p.a. After the final accounts were prepared it was discovered that interest on drawings had not been charged. Give the necessary adjusting journal entry and show the working notes clearly.

- 7. The average profit earned by a firm is  $\stackrel{?}{_{\sim}}$  75,000 which includes undervaluation of stock of  $\stackrel{?}{_{\sim}}$  5,000 on an average basis. The capital invested in the business is  $\stackrel{?}{_{\sim}}$  7,00,000 and the normal rate of return is 7%. Calculate goodwill of the firm on the basis of 5 times the super profit.
- **8.** Calculate the value of goodwill as on 1st April, 2015, on the basis of 2.5 year's purchase of the average profits of the last five years. The profits and losses for the years ending 31st March were: 2010 ₹ 80,000; 2011 ₹ 1,00,000; 2012 Loss ₹ 30,000; 2013 ₹ 1,70,000; 2014 ₹ 1,60,000 and 2015 ₹ 1,80,000. You are informed that the profits of the year ending 31st March 2014 included profit on sale of a fixed asset amounting to ₹ 50,000 and the profits for the year 2015 were affected by a loss due to fire amounting to ₹ 20.000.
- **9.** Calculate the value of goodwill at 2 year's purchase of the average profits of the last 3 years. The profit for the first year was ₹ 50,000, for second year twice the profit of first year and for the third year one and half times the profit of the second year.
- **10.** An existing firm had assets of ₹ 4,00,000 including cash of ₹ 15,000. The partner's capital accounts showed a balance of ₹ 3,00,000 and reserves constituted the rest. If the normal rate of return is 12% and the goodwill of the firm is valued at ₹ 50,000 at 2.5 year's purchase of super profits, find the average profits of the firm
- **11**. Average profit of the firm is ₹ 3,00,000. Total assets of the firm are ₹ 24,00,000 whereas Partner's Capital is ₹ 20,00,000. If normal rate of return in a similar business is 12% of the capital employed, what is the value of goodwill by Capitalization of Super Profit?

### 12. The following information relates to a partnership firm:

- (a) Sundry Assets of the firm ₹ 6,80,000. Outside Liabilities ₹ 60,000.
- (b) Profits and losses for the past years: Profit 2013 ₹ 50,000; Loss 2014 ₹ 10,000; Profit 2015 ₹ 1,64,000 and Profit 2016 ₹ 1,80,000.
- (c) The normal rate of return in a similar type of business is 12%.

### Calculate the value of goodwill on the basis of:

- (i) Three year's purchase of average profits.
- (ii) Three year's purchase of super profits.
- (iii) Capitalization of average profits, and
- (iv) Capitalization of super profits.
- 13. A, B and C are partners sharing profits in the ratio of 5: 3:2. It is now agreed that they will share profits in the ratio of 5: 4: 3. Goodwill is valued at  $\leq$  1,20,000. Pass a single journal entry for the treatment of goodwill.
- **14.** A and B have been carrying on business in partnership with fixed capitals of ₹ 2,40,000 and ₹ 1,20,000 respectively and sharing profits in the same proportion. They decided that with effect from April 1, 2016 they would share profits and losses in the ratio of 3: 2. For this purpose goodwill is to be valued at three year's purchase of the average of preceding three year's profits. The profits for the years ending 31st March were 2013: ₹ 75,000; 2014: ₹ 60,000; 2015 ₹ 80,000 and 2016 ₹ 1,30,000. Give the necessary journal entry.
- **15.** A. B and C were partners in a firm sharing profits in the ratio of 1:3:2. They decided that with effect from 1st April, 2016, they will share profits in the ratio of 4:6: 5. For this purpose the goodwill of the firm is valued at the total of preceding three year's profits. The profits were:

Year	₹
2011-12	40,000
2012-13	10,000 (Loss)
2013-14	80,000 (Loss)
2014-15	1,20,000
2015-16	1,40,000

Reserves and Profits appeared in the balance sheet at ₹ 40,000 and ₹ 30,000 respectively. Partners do not want to distribute the reserves and profits appearing in the balance sheet. Pass a single journal entry to record the change.

**16.** X, Y and Z are partners sharing profits and losses in the ratio of 5:3:2. Their position as at 31<sup>st</sup> March 2019 was as follows:

Liabilitie	<u>es</u>	₹	<u>Assets</u>		₹
Sundry Cre	editors	44,000	Cash in Hand		8,000
Outstandir	ng Expenses	10,000	Cash at Bank		22,000
Capitals:			Debtors	56,000	
Х	2,80,000		Less: Provision	6,000	50,000
Υ	2,80,000		Stock		2,80,000
Z	1,00,000	6,60,000	Machinery		1,54,000
			Building		2,00,000
		7,14,000			7,14,000

It was decided that with effect from 1st April 2019, profit and loss sharing ratio will be 3:3: 1. They agreed on the following terms:

- (i) Goodwill of the firm be valued at two year's purchase of the average super profits of last three years. Average profits of the last three years are ₹ 1,08,000, while the normal profits may be taken at ₹ 66,000.
- (ii) Provision on debtors be reduced by ₹ 2,000.
- (iii) Value of stock be increased by 10% and machinery be valued at ₹ 1,00,000.
- (iv) An item of ₹ 3,000 included in sundry creditors is not likely to be claimed.

Partners do not want to record the altered values of assets and liabilities in the books. Pass an entry to give effect to the above and prepare the revised balance sheet.

## **BUSINESS STUDIES**

#### Question 1:

Rajeev is a middle lever manager. He keeps all his subordinates under a lot of discipline. His employees however complain of wastage of time and efforts as they feel that nothing is being assigned in a proper way and a proper place, also no proper schedule is made for working. Which principle of management is violated here?

### Question 2:

Rajesh wants to become an ideal manager. For this he reads many management books. After reading various broad and general guidelines he prepares f to apply them and make his work more meaningful. The necessary outcome will be his improved output.

Which concept of management has been highlighted here? 1

#### Question 3:

Pakka employment is a company which takes care of the fact that the confidence of the employees should always be at its peak. For this reason they give surety to their employees for employment for a minimum fixed tenure of time. Which principle of management is followed here?

#### Question 4:

A floor manager of a Mall is very capable as he utilises all the functions of management. He lays stress on developing mutual trust and spirit of cooperation amongst the employees. Under his guidance the employees admit that they learn a lot and are able to meet their targets. This has led to increase in their salaries.

Identify the principle of Fayol followed by the floor manager in the above case.

### Question 5:

The plant superintendent of a company is very sad. When he was on leave he was expecting his subordinates to take the remaining work to the finish. However he finds a new way of dealing with this problem. He develops a system of suggestion building from the side of workers. For this a suggestion/complain box is to be kept where the workers can drop their advice and hence take steps from their side.

Which principle of management has been implemented here off late by the plant superintendent?

Ouestion 6:

Suresh works in a bulb manufacturing company. Each bulb which is manufactured is of standard size and quality. Further if there is any unrequired type of bulb manufactured then its production is stopped. Last month when the company came to know that 10 watt bulbs were no more liked by customers, their production was stopped. He works in the purchase department. His job is to purchase the filaments required to make bulbs. This time when he purchases the filament he gets the instruction from the seller that some special care needs to be taken in the first hour of fixing the filaments inside the bulb. Suresh knows this information should be given immediately to the production department before the assembling process starts. However he finds that his company's policies only allow him to give the message to his immediate boss who will further pass this message to his boss. The passing of this message will continue till it reaches the desired person in the production department.

Which technique of management is followed here? Also name the principle of management followed here by the company? Which option is now available to Suresh since the company is not allowing him to interact with the concerned worker in the production department? 4

### Question 7:

Every year a meeting is organized in the lawns of the owner of a company. In this meeting the owner of the company grants some funds for the benefit of the families of the employees. The employees on the other hand never resist any change or put excessive demands. The general environment in the company is very supportive to the employees. The employee turnover ratio is very low.

Which concept of management is discussed here? Which principle of management will be easily

#### followed here?

#### **Question 8:**

Bhatkaav Enterprises is facing huge losses. The owner of the company is an MBA pass out. Even then many things in the organisation are happening which are indicative of lack of proper management in the company. First of all there is no specific sharing of work and any time any employee is asked to do anything. This has lead to wastage of efforts. Further due to negligence in proper work sharing there has been no specialisation development in the nature of the jobs done by the employees.

There are no clear and fair agreements between the workers and the management. This has led to a lot of frustration in the workers. Management has quite often been found to be ignorant of not fulfilling promises done by it. There are also no strict rules and regulations binding on the conduct of the workers.

The departmental heads who are the middle level managers in the company and hold key positions always favour their relatives. They quite often don't turn up for job on time. They are always looking for special relaxations from the top management. This has led to feeling of resentment among the employees who are also demanding special favours and threatening strike in the coming days.

Identify the three principles of Fayol violated in the above case.

### Question 9:

Ramesh is the owner of a printing press. The size of his organisation has y/increased during the recent past. There are many employees who work in his organisation. The organisation is considered good and has earned a lot of reputation in the market. However when it comes to making key decisions in the organisation related to many things he never considers the opinions of his subordinates. Even though the size of the organisation has increased yet he tries to take all the key decisions on his own.

Which principle of Fayol has been violated by him?

### Question 10:

Mohan works on the floor of a mall as a manager. He is very hard working but is unable to produce results for his organisation. His target for last month was a sale of 10 lakh rupees from his floor. However by the end of the month the sale was only 8 lakh rupees. He is very regular and takes all the necessary steps to complete the target. However his staff is not as competent as he himself is. When he tries to take action against disobedient employees the top management doesn't allow him to do so. They haven't given him the power to fire employees or take any strict action against them. Which principle of Fayol is violated here by the Organisation? 1

### Question 11:

Enlightened Souls Pvt. Ltd. is a tube light manufacturing company. Before the start of the year they had promised their employees for bonus for extra production. It was also decided that those who will put extra time will be paid extra according to the number of hours. However people in the HR department who worked very hard later complained that they were not compensated for the extra number of hours that they used to stay in the office.

Which principle of Fayol is violated here?

#### **Question 12:**

Rohan and Amit are working in the purchase department of a company. Rohan is the brother-in-law of the managing director of the company whereas Amit has been recruited from an external source. They both have been performing below average for the last couple of months. Many people in the organisation talk about their lack of responsibility. When the managing director of the company came to know about their irresponsible behaviour he immediately suspended Amit but did not take any action against Rohan.

Identify the principle of Fayol which has not been followed by the managing director in the above case.

### Question 13:

Aditi who is heading the campus recruitment program of the firm that she is working in, gets an immediate order from the marketing head of the organisation. Mr. Rupesh asks her to hire only those candidates who have two years experience in the field of marketing and offer them a higher package. Moments later when she is about to enter the campus she gets another call from the HR head who asks her to hire candidates with zero experience. He gives her the logic that such candidates would be expecting lower packages in comparison to the candidates having experience in the industry.

Which principle of Fayol stands violated here? What is the immediate outcome of the violation of this principle? State the principle. 3

### Question 14:

Aapka Apna Vehicles is a vehicle manufacturing company. The company has the same unit producing both scooters and cars. This leads to confusion among the employees regarding the reporting as well as differentiation of work.

Which principle of Fayol is violated here? Why? State the principle. Give an immediate outcome of the violation of this principle. 4

#### Question 15:

Twenty new employees have started their career in XYZ Ltd. The employees are new to the environment of the organisation and have no idea about the demanding jobs. The management has decided to give them three months of time to show their results.

Which principle of Fayol is followed here? How does this principle help the organisation?

### **Question 16:**

Enigma Coolers are the leading manufacturers in their area. They have decided to increase the productivity of their workers. For this they have chalked out a plan. They will be hiring operational managers who to work at the lower level of management. They have decided to keep eight managers over a single worker. Thus every worker will have to report to all these eight managers. Which technique of scientific management is followed here? What will be the benefit? Also tell which principle of Fayol will be violated here?

### Question 17:

ABCDEF Ltd. has decided to become the market leader in selling water bottles. The company decides to take care of all the departments. The top management decides to set standards for all the business activities right from the purchase of raw material to manufacturing and packaging of the water bottles.

Which scientific technique of management is used here? Name three advantages of this technique.

#### **Question 18:**

'Work is Worship' is a leading construction company. The organisation has grown from strength to strength because of its innovative ideas and scientific approach of working. Ten years back the organisation went through a revolution. All the operations and activities were properly noticed and the standard time taken to perform them was noted. This took a few months and now the company could find out the amount of workers required and the number of days to be involved in the various manufacturing processes. A year later they moved to another level by considering the stress involved in the lives of the workers. The amount and frequency of rest intervals in finishing a particular task were noted. This helped the company in optimizing the rest intervals for the workers so that their outputs could be increased. After six more months the company decided to reward the efficient workers. A different rate of wage payment was decided for those workers who performed above the standard. The standard was decided. This led to a revolutionary change in the perspective of the workers who now started giving their full efforts in order to increase their wages. Which concept of management has been discussed in the above case? Name the three types of this management concept highlighted above. Also identify the lines where these types have been indicated. 4

### Question 19:

Sanchit, after completing his entrepreneurship course from Sweden returned to India and started a

coffee shop 'Aroma Coffee Can' in a famous mall in elhi. The speciality of the coffee shop was the special aroma of coffee and a wide variety of flavours to choose from. Somehow, the business was neither profitable nor popular. Sanchit was keen to find out the reason. He appointed Sandhya, an MBA from a reputed college, as a Manager to find out the causes for the same.

Sandhya took feedback from the clients and found out that though they loved the special unique aroma of coffee but were not happy with the long waiting time being taken to process the order. She analysed and found out that there were many unnecessary obstructions in between which could be eliminated. She fixed a standard time for processing the order.

She also realised that there were some flavours whose demand was not enough. So, she also decided to stop the sale of such flavours. As a result within a short period Sandhya was able to attract the customers.

Identify and explain any two techniques of scientific management used by Sandhya to solve the problem.

### Question 20:

A scientist working in a factory for the betterment of the operational aspect studied all the steps involved in the manufacturing of the product. He very attentively noticed all sorts of movements to arrive at a simpler way of doing all the activities possible. With his hard work he was able to bring down the number of activities for the manufacturing of the final product from 34 to 22. This work was able to bring down the labour charges and decrease the total time of production. Thus he gave the organisation an added advantage.

Which type of scientific technique is discussed here?

### Question 21:

'Kanpur Leather Ltd.' is the manufacturer of leather products. It is pro-ducing on large scale and its organisational structure is functional. In the production department various foremen have been employed. Each foreman has been made responsible for production planing, implementation and control. This has led to a situation of confusion and uncertainty. Suggest a technique of scientific management to Kanpur Leather Ltd. which may help it to effectively organise planning and its execution.

#### Question 22:

ABCDEF is a world renowned retail chain store. The customers here are very much pleased with the products and services provided in the stores. The customer satisfaction and internal efficiency indicator of the organisation is rated best in the industry. However there have been a few steps taken by the organisation which provide the organisation this edge. The organisation has used a special type of software which integrates all the stores and brings uniformity in its billing and working pattern.

Which principle of management is mentioned here?

#### Question 23:

Star Limited is a garment manufacturing company which has been performing quite well. The company got a major order of 2000 shirts which it is supposed to manufacture and supply within two weeks time. On an average the company manufactures around 50 to 60 shirts in a day. Therefore, it is a very challenging task for the organisation. The management of the company asked its labour to put in extra hours without any additional payment to achieve this objective. In return, management has promised the

workers that their wages will be increased on a permanent basis as soon as the project is over. The labour agreed to the management's proposal and completed the assigned task within the allotted time frame. As per its promise the management increased the wages of the workers and the project became a great success. Both management and labour honoured their commitment.

Identify the principle of Henri Fayol which has been highlighted in the above case.

## Question 24:

'We are the Best' Public School though is a disciplined organisation, It lacks well defined rules and regulations. With passage of time the management of the finds out that if there are proper rules

and regulations for the students and the teachers the result of the school improves.

Which nature of principles of management is highlighted here?

#### **Question 25:**

In a huge manufacturing company there was a constant training programme running for the workers throughout the year. The workers were trained about the machines as the management realised that management is all about the relationship among workers and their proper handling of the machines. As the size of the organisation increased the management decided to release their hold on day to day activities of the organisation. A more decentralised approach was adopted where the workers could decide about the machines and the amount of raw material required instead of the traditional centralized approach as per the needs. The management knew that the external environment is dynamic. In order to meet stiff competition they clarified to the workers that their instructions should not be taken strictly and should be moulded as per the requirements of the organisation at the level where actual action takes place.

Which natures of principles of management have been highlighted in the above case? 3

#### **Question 26:**

- a) Explain Marketing with it's features.
- b) What can be marketed?
- c) What are the functions of marketing explain in detail?
- d) Explain Marketing Mix with the help of flow chart.

### PHYSICAL EDUCATION:

### Choose a specific games or sports from the following -

Basketball, Handball, kho-kho, Football, hockey, volleyball, kabaddi and cricket

### (Choose any one Sport/Game)

Write about the following information which is given below of the sports you have selected.

- History of sports/games
- Rules and regulation
- Measurement
- Specification
- Fundamental skill
- Terminology
- Sports Gear
- **Sports Personalities**
- Sports injury
- Important Tournament
- Warming up and Cool Down Exercise

**Practical No-1:** Fitness Test administration for all items.

Practical No-2: Procedure for Asanas, Benefits and contradictions for any one Asanas for each lifestyle disease. (Take your Pictures and Paste in Project File)

Practical No-3: Procedure for administrating Senior Citizen Fitness Test for 5 elderly family members /neighbours.

Practical No-4: Draw a 400m Athletic Track with their specifications & measurements.

## HINDI

## निम्नलिखित में से किसी एक विषय पर लगभग 2000 शब्दों में परियोजना कार्य पूरा कीजिए।

कुल अंकः 10 2

विषय वस्तु।ः

भाषा एवं प्रस्तुतिः ३

शोध एवं मौलिकताः

### नोट - यथासंभव चित्रों का प्रयोग भी अवश्य करें।

### विषय

- 1. साहित्य सम्राट प्रेमचंद
- 2 कृष्ण भक्त कवि सूरदास
- 3. जनमानस के कवि तुलसीदास
- 4. विज्ञापन की दुनिया
- 5. जनसंचार के माध्यम
- 6. कबीर दास एक समाज सुधारक कवि
- 7. समसामयिक विषयों पर कोई पांच निबंध

## **INFORMATICS PRACTICES**

### Revise Unit Database Query using SQL and Do practice Questions of Back Exercise .

- Write the output of the following query:
- Select power(2,0);
- b. Select round(345.876);
- c. Select length(trim(" Computer "));

Select mid("Informatics Practices", instr("Informatics Practices", "P"), 9);

Select left("Computer Science",length('computer'));

- d. Select right(substr('Common Queries',8,7),4));
- e. Select left(class,2) CLASS,right(class,1) SEC from student where grade='A';
- f. select mod(100,9); ii)select dayofmonth(now());
- 2. What is the difference between Single Row function and Multiple Row function in MySQL? Give Example.
- 3. What is the difference between 'where' and 'having' clause in MySQL. Explain with example.
- 4. Mr. Das has created the following table 'product'

#### **TABLE:PRODUCT**

Id	PNAME	Qty	Price	TransactionDate
101	Plastic Folder 12	100	3400	2014-12-14
104	Pen Stand Standard	200	4500	2015-01-31
105	Stapler Medium	250	1200	2014-02-28
109	Punching Machine Big	200	1400	2015-03-12
103	Stapler Mini	100	1500	2015-02-02

### Write the output of the following queries:

- (i) Select \* from product where month(TransactionDate) = 2;
- (ii) Select id, pname from product where year(TransactionDate) = 2014;

### Write the queries of the following:

- (i) Display the details of product which are purchased in month of March.
- (ii) Display the average price of product.
- 3. Consider the table "Book" which has the following fields
- 1. Bookno
- 2. Bname
- 3. Price
- 4. Author\_name

### Write the queries for the following

- a. Display name of all the author in upper case.
- b. Display last digit of price column of all the books.
- c. Display second, fourth and fifth character from all the book name.

- 4. What is the difference between group by and order by clause .Give Example.
- 5. On the basis of given table **Employee** answer the queries as directed:

### **RELATION:Employee**

Emp_id	Ename	Desig	Salary	Incentive
101	Mr. Kanan	Manager	50000	40000
105	Ms Damini	Manager	45000	50000
107	Mr. Kapoor	Clerk	30000	15000
109	Mr. Sharma	Analyst	40000	10000
110	Mr. Kumar	Clerk	25000	NULL

- 1. Select sum(Salary) from employee where Desig = "Manager";
- 2. Select average(Incentive) from employee;
- 3. Select max(Salary) min(Incentive) from employee;
- 4. Select Desig, sum(Salary) from employee group by Desig;

### Write the output of the following queries:

- Select count(\*) from employee;
- 2. Select count(Incentive) from employee;

Write the reason of getting different output of above two queries. Also explain the count() function.

## **PAINTING**

### 1. Practical file work

Do complete 10 sheets for file.

- \*5 object drawings
- \*5 composition (village ,picnic , festival scene etc)-

(3 or 4 human figure must draw in composition)

### 2. Theory

Chapter 2,3,4 and 5 write in your register and learn also for test.

## <u>YOGA</u>

- Q1. Make A Project On Shatkarmas
- 1.Neti 2.Kapalbhati 3.Basti 4.Trataka 5. Dhauti 6.Nauli
- Q2. Explain About Six Cleansing Techniques
- Q3. Explain About 12 Steps Of Suryanamaskar . Paste Picture Of Each Step