



# BCM SCHOOL

A Senior Secondary School of BCM Foundation, Affiliated to CBSE, New Delhi  
Sector 32 -A, Chandigarh Road, Ludhiana

## HOLIDAYS HOME WORK CLASS- XII -COMMERCE

### SUBJECT:- ENGLISH

Dear students

As per CBSE guidelines students of class XII will prepare a project work. It must be done individually. There will be one project file based on any one topics given below.

Topics:

- a. Mental health awareness: Raising awareness about the importance of mental health and ways to cope with mental issues.
- b. Cyber Security : Analysing the importance of cyber security in today's digital world and ways to protect personal data and information.
- c. Indian Literature : Analysing the works of prominent Indian English authors and their impact on Indian literature and culture.
- d. Social Networking platforms: Is social Media an effective tool for quick and convenient communication, or is it just a sophisticated means for stalking people?
- e. Climate Change : The greatest threat for survival.
- f. Chat GPT- A threat to Human Resource.

Following points to be considered:

- i. Students can choose any one topic of their choice and do any one activity based on the topic. Activities are:
  - a. Interview
  - b. One act play
  - c. Audio/video presentation
  - d. listen to Podacasts /Documentaries.
- ii. Project to be divided into four phases: plan, research, create & present.
- iii. What to include in the project:
  - a. Cover page
  - b. Table of contents
  - c. A declaration by the student.
  - d. Certificate of completion
  - e. Statement of purpose/objectives
  - f. Materials used (evidence of process and progress)
  - g. Methodology for the project
  - h. Description and analysis of the data/information
  - i. Conclusions
  - j. Photographs
  - k. Limitations of the research/project work
  - l. Recommendations
  - m. Students' reflection sheet ( what worked well, areas that need improvement, my action plan for improvement)
  - n. Bibliography/ reference
  - o. Assessment sheet

**Solve the comprehension passages in your BBC Compacta Classroom Assignment 1, 2, 6 & 7**

## SUBJECT:- ACCOUNTANCY

### CHAPTER - PARTNERSHIP FUNDAMENTAL

- 1) Why should a firm have a partnership deed?
- 2) Do all firms need a deed and registration?
- 3) Is sleeping partner liable to the acts of other partners?
- 4) Interest on drawing of partners is credited to \_\_\_\_\_ .
- 5) Interest on partners loan, when capitals are fixed, is credited to his \_\_\_\_\_ .
- 6) What is meant by fluctuating capital of partners?
- 7) When the partners capital are fixed, where the drawings made by a partner will be recorded?
- 8) What is meant by Profit and Loss appropriation account?
- 9) Name the accounts which are maintained for the partners when capitals of the partners are fixed.
- 10) State the conditions under which the capital balances may change under the system of a fixed capital account.
- 11) Calculate the interest on drawings of Rakshit @ 10% p.a. for the year ended 31st March, 2018 in each of the following cases:-
  - a. If his drawings during the year were ₹ 10,000
  - b. If he withdrew ₹ 2,500 p.m. at the beginning of every month.
  - c. If he withdrew ₹3,000 p.m. at the end of every month.
  - d. If he withdrew ₹ 3,500 p.m. In the middle of each month.
  - e. In he withdrew the following amounts; April 30th ₹3,000, June 30th ₹ 2,000, October 1st ₹ 4,000 , December 31st ₹ 1,500, February 1st ₹ 2,500, 31st March ₹ 3,000.
  - f. If he withdrew ₹ 4,000 at the beginning of each quarter
  - g. If he withdrew ₹4,500 at the end of each quarter.
  - h. If he withdrew ₹ 5,000 during the middle of each quarter.
- 12) A group of 40 people wants to form a partnership firm they want your advice regarding the maximum number of persons that can be there in a partnership firm and the name of the Act Under whose provisions it is given.
- 13) How are mutual relations of a partners governed in the absence of partnership deeds.
- 14) Why salary and commission paid to partners are recorded in Profit and Loss appropriation accounts instead of profit and loss accounts.
- 15) Ram and Hari are equal partners. They contributed ₹ 5,00,000 each as their capital. Hari withdrew ₹3 lakh from the firm for buying car for his personal use. Ram wanted that interest on drawings be charged at 8% per annum, as the firm had to secure loan for the firm at this rate. Hari objected to it as deed does not provide to it. Thus no interest on drawings was charged. Do you think that any value has been ignored in this case ?
- 16) Amit and Sumit are partners with a capital of ₹ 2,00,000 and ₹1,50,000 respectively. The net profit for the year ending 2014 amounted to ₹ 2,51,750 before considering the followings:  
Amit advanced loan to the firm amounting ₹ 1,00,000.  
Interest on capital be allowed @ 5% per annum. Interest on drawings be allowed @ 5% p.a.  
Drawings of Amit was ₹ 40000 and of Sumit was ₹ 30000. Amit was allowed Commission @2% on sales which was ₹15,00,000 while Sumit was allowed Commission @10% on distributable profits before charging his Commission but after charging Amit's Commission. It was also decided to keep 10% of divisible profit to Reserve accounts. Prepare profit and loss appropriation account.
- 17) A, B & C are partners for 3:2:1. They contribute capital ₹2,00,000; ₹1,50,000 and ₹ 1,00,000. Interest on capital @ 5% per annum and interest on drawings @ 3%. Drawings of partners were ₹ 20,000 each. B was entitled to rent @ ₹1000 per month for providing his premises to the firm. C was entitled to commission of 5% on net profit after charging his Commission. The net profit before these adjustments for the year ending 31st March 2014 was ₹ 99,000 assuming that current account

balances of partners were A - ₹5,000 (Cr), B - ₹4,000 (Cr) C - ₹3,000 (Dr). Prepare profit and loss appropriation account.

- 18) A, B and C are partners in a firm sharing profit and loss in the ratio 3 : 2 : 1. Their capitals were ₹1,00,000, ₹75,000 and ₹50,000 respectively. They agreed to allow interest on capital @ 10% per annum and agreed to charge interest on drawings @ 10% per annum. Their drawings for the year were ₹10,000, ₹8,000 and ₹6,000 respectively. C was very active getting a salary of ₹2,000 per month and in return, he guaranteed that's firm's profit would not be less than ₹80,000 before charging or allowing interest and salary payable to C. Actual profits for the year 2021 was ₹75,000. Prepare Profit and Loss appropriation account and partners' capital account.
- 19) A, B and C were partners in a firm. On 1st April 2012 their capitals stood as ₹5,00,000, ₹2,50,000 and ₹2,50,000 respectively. As per provisions of the partnership deeds:  
C was entitled for a salary of ₹5,000 per month. A was entitled for a commission of ₹80,000 per annum. Partners were entitled to interest on capital @ 6% per annum.  
Partners will share profits in the ratio of capitals. Net profit for the year ending 31st March 2013 was ₹3,00,000 which was distributed equally without taking into consideration the above provisions. Showing your working clearly pass necessary adjustment entry for the above.

### Chapter – Valuation of goodwill

- From the following some information's provided to you of the partnership business  
Average capital employed in that business was 9,80,000. Normal rate of return value was 18%. Profit and losses for the past years were Profits 2001 2,06,640; Loss 2002 2,07,340; and Profits 2003 6,28,180. Remuneration to one of the partners was 16,800 per annum. Assets (excluding goodwill) were 10,56,667. Liabilities 43,860. Now calculate the value of goodwill on the basis of  
(i) three years purchase of average profit.  
(ii) 3 years purchase of super profit.  
(iii) Capitalization of average profit capitalization of super profits.
- The average profit earned by the firm is 2,50,000, which includes overvaluation of stock of 10,000 on an average basis. The capital invested in the business is 14,00,000 and the normal rate of return is 15%. Calculate goodwill of the firm on the basis of 4 times the super profit.
- A business has earned average profits of ₹1,00,000 during the last few years and the normal rate of return in similar business is 10%. If goodwill of the firm is valued at ₹1,20,000 at 3 years' purchase of super profit, find out capital employed by the firm.
- The average profits of Smart Industries are ₹1,30,000. The fixed assets of the firm are ₹9,00,000, current assets are ₹5,00,000 and outside liabilities are of ₹4,00,000. In the same type of business, the normal rate of return is 10%. Calculate the value of goodwill by Capitalisation of Average Profit Method.
- The average profit earned by a firm is ₹75,000 which includes undervaluation of stock of ₹5,000 on an average basis. The capital invested in the business is ₹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.
- A and B are partners sharing profits and losses in the ratio of 3:2. They admit C as a partner for 1/4th share. For this purpose, the goodwill of the firm has to be valued on the basis of 3 years' purchase of last 4 years average profits. The profits for the last four years were:

Years	Profits (₹)
2013-14	₹37,000 (after charging voluntary retirement compensation of ₹3,000)
2014-15	₹44,000 (includes lottery income of ₹7,000)
2015-16	₹27,000 (Loss)
2016-17	₹53,000 (excludes salary of ₹6,000 to a manager, now to be paid)

Calculate goodwill of the firm.

## Chapter – Admission of a partner

- 1). Pass journal entries to record the following transactions on the admission of a new partner:
  - (i) Stock is undervalued by 10% (Book Value of Stock ₹54,000)
  - (ii) Stock is overvalued by 10% (Book Value of Stock ₹66,000)
  - (iii) Value of Land & Building is to be increased to ₹5,00,000 (Book Value ₹4,00,000)
  - (iv) Value of Land & Building is to be increased by ₹5,00,000 (Book Value ₹4,00,000)
  - (v) A debtor whose due of ₹40,000 was written off as bad debts last year, paid ₹30,000 in full settlement.
  - (vi) An old customer, whose account was written off as bad debts has promised to pay ₹ 15,000 in full settlement of his account of ₹25,000. (vii) A liability for claim, included in creditors for ₹20,000 is settled at ₹16,000.
  - (viii) A computer purchased on 1st October 2020 for ₹40,000 debited to Office Expenses Account is to be brought into account on 31st March 2022 charging depreciation @10% p.a. on written down value basis.
- 2) E and F were partners in a firm sharing profits in the ratio of 3: 1. They admitted G as a new partner on 1-3-2021 for 1/3rd share. It was decided that E, F and G will share future profits equally. G brought ₹50,000 in cash and machinery worth ₹70,000 for his share of profit as premium for goodwill. Showing your calculations clearly. Pass necessary journal entries in the books of the firm.
- 3) Leela and Meeta were partners in a firm sharing profits and losses in the ratio of 5:3. On 1st April, 2022 they admitted Om as a new partner. On the date of Om's admission the balance sheet of Leela and Meeta showed a balance of ₹1,60,000 in General reserve and ₹2,40,000 (Cr.) in Profit and Loss Account. Record necessary journal entries for the treatment of these items on Om's admission. The new profit sharing ratio between Leela, Meeta and Om was 5:3:2.
- 4) A, B and C are partners sharing profits and losses in the ratio of 2 : 2:1. They admitted D for 1/4th share with effect from 1st April, 2021. An extract of their Balance Sheet as at 31st March, 2021 is as follows:

Liabilities	₹	Assets	
Workmen Compensation Reserve	80,000		

Show the accounting treatment under the following alternative cases:

Case 1. If there is no other information.

Case 2. If a claim for workmen compensation is estimated at ₹50,000.

Case 3. If a claim for workmen compensation is estimated at ₹80,000. Case 4. If a claim for workmen compensation is estimated at ₹1,00,000.

- 5) A, B and C sharing profits and losses in the ratio of 3:2:1 decide to admit D 1/5th share with effect from

1st April, 2021. An extract of their Balance Sheet as a 31st March, 2021 is:

Liabilities	₹	Assets	₹
Investments Fluctuation Reserve	30,000	Investments (At cost)	
5,00,000			

Show the accounting treatment under the following alternative cases:

Case 1. If there is no other information. Case 2. If the market value of investments is ₹5,00,000.

Case 3. If the market value of investments is ₹4,82,000.

Case 4. If the market value of investments is ₹4,55,000.

Case 5. If the market value of investments is ₹5,24,000.

- 6) A, B and C were partners in a firm sharing profits in the ratio of 3:2:1. On 31-03-2015, their Balance Sheet was as follows:

BALANCE SHEET OF A, B AND C as at 31.03.2015

Liabilities		Amt	Assets		Amt
Creditors		84,000	Bank		17,000
General Reserve		21,000	Debtors		23,000
Capitals:			Stock		1,10,000
A	60,000		Investments		30,000
B	40,000		Furniture and Fittings		10,000
C	20,000	1,20,000	Machinery		35,000
		<b>2,25,000</b>			<b>2,25,000</b>

On the above date, D was admitted as a new partner and it was decided that:

- (i) The new profit sharing ratio between A, B, C and D will be 2:2:1:1.
- (ii) Goodwill of the firm was valued at ₹90,000 and D brought his share of goodwill premium in cash.
- (iii) The market value of investments was ₹24,000.
- (iv) Machinery will be reduced to ₹29,000.
- (iv) A creditor of ₹3,000 was not likely to claim the amount and hence to be written off.
- (vi) D will bring proportionate capital so as to give him 1/6th share in the profits of the firm.

Prepare Revaluation Account, Partners' Capital Accounts and the Balance Sheet of the reconstituted firm.

### Chapter – Retirement of a partner

- 1) X, Y and Z were in partnership sharing profits and losses equally. 'Y' retires from the firm After all the necessary adjustments, his capital account shows a net credit balance of ₹40,000 as on 1 April, 2013. "Y" is to be paid in four equal annual instalments starting from 31 December, 2013, together with interest @ 10% p. a. Prepare Y's Loan Account until he is paid the entire amount due to him. The firm closes its books on 31 March of every year.
- 2) Sameer, Yasmin and Saloni were partners in a firm sharing profits and losses in the ratio of 4:3:3. On 31.3.2016, their Balance Sheet was as follows:

Liabilities		Amount	Assets		
Amount					
Creditors		1,10,000	Cash		80,000
General Reserve	60,000	Debtors	90,000	Capitals :	Less: Provision 10,000
Sameer	3,00,000			Stock	1,00,000
Yasmin	2,50,000			Machinery	3,00,000
Saloni	1,50,000	7,00,000	Building		2,00,000
			Patents		60,000
			Profit and Loss a/c		50,000
		<b>8,70,000</b>			<b>8,70,000</b>

On the above date, Sameer retired and it was agreed that:

- (i) Debtors of ₹4,000 will be written off as bad debts and a provision of 5% on debtors for bad and doubtful debts will be maintained.
- (ii) An unrecorded creditor of ₹ 20,000 will be recorded.
- (iii) Patents will be completely written off and 5% depreciation will be charged on stock, machinery and building.
- (iv) Yasmin and Saloni will share future profits in the ratio of 3:2.

- (v) Goodwill of the firm on Sameer's retirement was valued at ₹5,40,000. Pass necessary journal entries for the above transactions in the books of the firm on Sameer's retirement.

3) The Balance Sheet of A, B and C who were partners in a firm sharing profits according to their capitals as at 31st March, 2003 was as under:

Liabilities		Amt	Assets		Amt
Creditors		21,000	Buildings		
	1,00,000				
Capitals:	50,000		Machinery		
A	80,000		Stock		
	18,000				
B	40,000		Debtors		20,000
C	40,000	1,60,000	Less: Provision for Bad Debts	1,000	
	19,000				
General Reserve		20,000	Cash at Bank		
	14,000				
		2,01,000			
		2,01,000			

On that date, B decided to retire from the firm and was paid for his share in the firm subject to the following:

- Building to be appreciated by 20%,
- Provision for Bad Debts to be increased to 15% on Debtors.
- Machinery to be depreciated by 20%.
- Goodwill of the firm is valued at ₹72,000 and the retiring partner's share is adjusted through the capital account of remaining partners.

Prepare Revaluation Account, Partners' Capital Accounts and the Balance Sheet after retirement of B.

4) Kushal, Kumar and Kavita were partners in a firm sharing profits in the ratio of 3:1:1. On 1 April, 2012 their Balance Sheet was as follows:

Liabilities		Amt	Assets		Amt
Creditors		1,20,000	Cash		
	70,000				
Bills Payable		1,80,000	Debtors		2,00,000
General Reserve		1,20,000	Less: Provision for Bad Debts	10,000	
	1,90,000				
Capital A/cs:			Stock		
	2,20,000				
Kushal	3,00,000		Furniture		
	1,20,000				
Kumar	2,80,000		Building		
	3,00,000				
Kavita	3,00,000	8,80,000	Land		
	4,00,000				
		13,00,000			
	13,00,000				

On the above date, Kavita retired and the following was agreed:

- Goodwill of the firm was valued at ₹40,000.

- (ii) Land was to be appreciated by 30% and building was to be depreciated
- (iii) Value of furniture was to be reduced by ₹20,000.
- (iv) Provision for Bad Debts is to be increased to ₹15,000.
- (iv) 10% of the amount payable to Kavita was paid in cash and the balance was transferred to her Loan Account.

Capitals of Kushal and Kumar will be in proportion to their new ratio. The surplus/ deficit, if any in the Capital Accounts to be adjusted through Current Accounts. Prepare Revaluation Account, Partners' Capital Accounts and Balance Sheet of Kushal and Kumar after Kavita's retirement.

**SUBJECT:- BUSINESS STUDIES**

Q1. Level of management mainly responsible for execution of plans

- (a) middle level. (b) Lower level
- (c) both a and b. (d) Neither (a) nor (b)

Q2. Which of the following belongs to middle level management

- (a) factory head. (b) chief operating officer (c) factory manager (d) none of the above.

Q3. This helps to develop unity, loyalty, commitment and cooperation among employees

- (a) coordination (b) motivation and leadership (c) direction (d) supervision

Q4.. Policy formulation is the function of

- (a) top level managers (b) middle level managers (c) operational managers (d) all the above

Q5.. Company X is facing a lot of problems these days it manufactures white goods like washing machines microwave ovens refrigerators and air conditioners. The company's margins are under pressure and the profits and market share are declining. The production department blames marketing for not meeting sales targets and marketing blames production department for producing goods, which are not of good quality meeting customer's expectations. The finance department blames both production and marketing for declining return on investment and bad marketing. State the quality of management that the company is lacking. What quality of management do you think the company is lacking? Explain briefly. What steps should the company management take to bring the company back on track?

Q6. Mega Ltd was manufacturing water heaters in the first year of its operations, the revenue earned company was just sufficient to meet its costs To increase the revenue, the company analysed the reason of less revenues. After analysis the company decided

(i) To reduce the labour cost by shifting the manufacturing unit to a backward area where labour available at a very low rate.

(ii) To start manufacturing solar water heaters and reduce the production of electric water heaters slowly This will not only help in covering the risks, but also help in meeting other objectives too

- (a) Identify and explain the objectives of management discussed above
- (b) State any two values which the company wanted to communicate to the society. principles of management other than the one Identified above.

Q7.. Star India Ltd. is manufacturing LED bulbs to save electricity and is running under heavy losses from the losses, the management thought of shifting the unit to a backward area where labor be a low cost. The management also asked the workers to work overtime without any additional payment and promised to increase the wages of the workers after achieving its mission. Within a short period the company started earning profits because both the management and the workers honored their commitment. State the principle of management described in the above Para.

Q.8. Appliances India Ltd. is engaged in manufacturing and distribution of home appliances since 1987. It has a good name in the market as the company is producing good quality appliances. It has separated department for manufacturing finance, sales, maintenance services and technical services to achieve specialization.

Since the areas of operations of the company have increased and customers have become more demanding the company decided to modify the existing principle of management to meet the changing requirements of the environment



State the general principle of management which the company wants to modify to meet the changing requirements

Q9..Damini Sours took over the reins of Kinsa Retail as its Managing Director in India. Kinsa Retail with its headquarter at Japan has been in the retail business for the last 40 years. It has regional office in many countries that take care of the shops in that region. As it is a large organization, the regional office have been given the powers to decide and spend funds sanctioned to them by the headquarter for the welfare of the customers of their region.

Q10.Kinsa Retail wants the highest possible standards of ethical conduct being followed for which a code of conduct is in place for putting values into practice. All employees as well as Board members are required to act in accordance with the highest standards of personal and professional integrity when acting on behalf of the company Noncompliance involves a heavy penalty including termination of employ Explain any two principles of general management being followed by Kinsa Retail

### PROJECT WORK

#### PREPARE ANY ONE OF FOLLOWING PROJECTS

PROJECT I	PROJECT II	PROJECT III
Marketing	Principles of Management	Stock Exchange

VISIT THE FOLLOWING LINK FOR DETAIL OF SUGGESTED TOPICS & INSTRUCTIONS :-

[https://cbseacademic.nic.in/web\\_material/CurriculumMain24/SrSec/BusinessStudies\\_SrSec\\_2023-24.pdf](https://cbseacademic.nic.in/web_material/CurriculumMain24/SrSec/BusinessStudies_SrSec_2023-24.pdf)

#### ORDER OF SHEETS-

- |                           |                           |               |
|---------------------------|---------------------------|---------------|
| 1. Main sheet             | 3. Certificate by teacher | 5. Index      |
| 2. certificate by student | 4. Acknowledgement        | 6. Content    |
|                           |                           | 7. Conclusion |

### SUBJECT -ECONOMICS

#### CBSE PROJECT WORK

For instructions follow the given link:-

[https://cbseacademic.nic.in/web\\_material/CurriculumMain24/SrSec/Economics\\_SrSec\\_2023-24.pdf](https://cbseacademic.nic.in/web_material/CurriculumMain24/SrSec/Economics_SrSec_2023-24.pdf)

TO PREPARE ANY ONE OF FOLLOWING PROJECTS

#### Suggestive List of Projects:

- |  |  |   |
|--|--|---|
| 1 Food Supply Channel in India           | 8 Currency war - reasons and repercussions                               | 14 Organic Farming - Back to the Nature   |
| 2 Disinvestment policy of the government | 9 Self-help group  | 15 Sustainable Development Goals (SDG's)  |
| 3 Health Expenditure (of any state)      | 10 10 Relation between Stock Price Index and Economic Health of a Nation | 16 Comparative Study of Economies (Maximum three economies)                       |
| 4 Inclusive Growth Strategy              | 11 Sri Lanka's Economic Crisis   | 17 G-20: Inclusive and Action Oriented  |
| 5 Trends in Credit availability in India | 12 Rainwater Harvesting - A solution to water crisis                     | 18 Any other newspaper article and its evaluation on basis of economic principles |
| 6 Role of RBI in Control of Credit       | 13 Bumper Production- Boon or Bane for the farmer                        |   |
| 7 Trends in budgetary condition of India |  |   |

Any other topic from syllabus

#### ORDER OF SHEETS-

- |                          |                   |                           |
|--------------------------|-------------------|---------------------------|
| 1.Main sheet             | 4.Acknowledgement | 6.Content                 |
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## **SUBJECT:- MASS MEDIA**

### **1. Advertising Campaign:**

Design a comprehensive advertising campaign for a product or service of your choice. This project should include creating print ads, designing a storyboard for a TV commercial, and developing a social media campaign. Present your campaign along with a detailed analysis of the target audience, marketing strategies, and persuasive techniques used. **(PRACTICAL -2)**

### **2. Radio Show Production:**

Produce a radio show segment on a current affair or a topic of interest. Plan the script; gather relevant information, and record interviews or discussions. Edit the audio to create a polished and engaging segment. Include music, sound effects, and transitions to enhance the overall experience. Write a reflection on the challenges faced and the effectiveness of radio as a medium for storytelling. **(PRACTICAL 4)**

### **3. A3 chart/Poster making**

**Topics –**

- Lab processing **(XII MED)**
  - Functions of Advertising **(XII COM A)**
  - What is Research and development department **(XII COM B)**
  - Basics of Graphic designs **(XII COM C)**
  - 7 Rules of photography **(XII ARTS A students under roll no. 1-25)**
  - 7 basic camera movements and their importance. **(XII ARTS A roll no. 25 onwards)**
  - Basic Elements of Radio Production **(XII ARTS B For students under roll no. 1-25)**
  - Film making and its journey **(XII ARTS B roll no. 25 onwards)**
- 4. Submit 8 photos (THEME BASED – TAKE IDEAS FROM PINTEREST) (PRACTICAL 3)**
- 5. COMIPLE YOUR PRACTICAL 1 (VIDEO AD), 2, 3 & 4 (mentioned in holidays homework) In a PowerPoint Presentation with your introduction.**
- 6. Revise all the completed chapters thoroughly.**

**Note – Mail your selected pictures at - [anupreetsapra1@gmail.com](mailto:anupreetsapra1@gmail.com)**

## **SUBJECT:- MUSIC**

1. Definitions of the following÷
  - Khatka, Murki-kan, Gram & Meend.
2. Description of Ragas with 3 Tanas of each Rag.
3. Biographies of Pt Krishan Rao Shankar. Faiyaz khan & Ustad bade Gulam Ali khan.
4. contribution of Pt sharng dev & Ahobal in the Granth of Sangeet Ratnakar & Sangeet Parijat.
5. Historical Development in Time Theory of Ragas.

Note- Write and learn whole syllabus along with MCQs.

Do more singing Practice of Ragas through YouTube.

## **SUBJECT:- PAINTING**

### **Practical**

2 Landscapes

2 compositions

1 still life

### **Theory**

- Do the assignment
- Prepare the chapters
- Miniature painting

- Rajasthani school of miniature painting
- Pahari school
- Mughal school of art
- Daccan school of art

**SUBJECT:- LEGAL STUDIES**

**Project**

Make project which includes three cases- civic, criminal and constitutional cases.

**SUBJECT:- PSYCHOLOGY**

1. Revise chapters 1, 3 4 and 5 and frame objective type questions from the same (minimum 25 questions from each chapter) and write in your notebook with their answers.
2. Answer all the questions given in the review exercise at the end of these chapters.
3. PROJECT WORK : Prepare a case profile of a person, who is suffering from a mental disorder or learning disability or who has excelled in areas like sports, academics, music etc.. Prepare the case profile as per the format given in the NCERT Textbook ( page no. 199). Make a beautiful cover page for your file as per the theme of your case.

NOTE: This case file will carry 5 marks in your practical exam and you will be asked questions related to same in viva.

**SUBJECT:-PHYSICAL EDUCATION**

- Practical-1 Fitness test administration (SAI Khelo India Test) Age category 9 to 18 yrs
- Practical -2 Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease.
- Practical- 3 Game volleyball
- Labeled diagram of field & Equipment. Also mention its Rules, Terminologies & Skills.

**NOTE – Complete the practical in neat and clean manner ,No Pasting allowed**

**SUBJECT:- HOME SCIENCE**

- To prepare practical file and project work
- Topics are given individually and discussed

**SUBJECT- CS & IP**

1. What is a data type? Name some data types available in my SQL.
2. Is the Null value the same as zero?
3. While using SQL pattern matching ,what is the difference between underscore \_ and percentage % wild card symbols?
4. Differentiate between CHAR and VARCHAR data types
5. Write MY SQL command to display the list of existing databases.
6. Compare to a file system, how does a database management system avoid redundancy in data through a database?
7. What are the limitations of the file system that can be overcome by a Relational Database?
8. Differentiate between
  - Degree and cardinality of a relation
  - Primary key and foreign key
9. An organisation wants to create a database Emp-dependent to maintain following details about its employees and their dependents.

**EMPLOYEE(Adharnumber,Name,address,Department,Employee ID);**

**DEPENDENT ( EmployeeID, DependentName,Relationship);**

- a) Name the attributes of employee which can be used as candidate keys.

- b) The company wants to retrieve details of dependent of particular employee. Name the tables and the key which are required to retrieve this details.
- c) What is the degree of employee and dependent relation?
10. Write the output of the queries (a) to (d) based on the table, Furniture given below:

**Table: FURNITURE**

FID	NAME	DATEOFPURCHASE	COST	DISCOUNT
B001	Double Bed	03-Jan-2018	45000	10
T010	Dining Table	10-Mar-2020	51000	5
B004	Single Bed	19-Jul-2021	22000	0
C003	Long Back Chair	30-Dec-2016	12000	3
T006	Console Table	17-Nov-2019	15000	12
B006	Bunk Bed	01-Jan-2021	28000	14

- (a) select sum(discount) from furniture where cost>15000;
- (b) select max(dateofpurchase)from furniture;
- (c) select \* from furniture where discount>5 and fid like "t%";
- (d) select dateofpurchase from furniture where name in ("dining table", "consoletable");
11. Mr Mittal is using a table with the following columns **name, class, stream**

**ID, stream name.** He needs to display name of students who have been assigned any stream or have been assigned stream name that ends with computers. He wrote the following command, which did not give the desired result.

**Select name, class, dob students where streamname =null or streamname="computers**

Help Mr. Mittal to run the query by removing the error and write correct query.

12. Sarthak, a student of class 12th created a table class. Grade is one of the columns of this table. To find the details of the students whose grade have not been ended, he wrote the following SQL query which did not give the desired result:

**Select \* from class where grade="null";**

write the correct.

13. Can you add more than one column in a table by using ALTER TABLE command?
14. Define the use of INSERT INTO command in SQL with example.
15. Consider the table CUSTOMER

**write the sql commands for the following statements.**

- a. To display the names of all the silver colored cars.
- b. To display name of car, make and capacity of cars in descending order of the sitting capacity.
- c. To display the highest charges at which a vehicle can be hired from carden.
- d. SELECT CAR NAME FROM CARDEN WHERE CAPACITY=4;

CCode	CarName	Make	Color	Capacity	Charges
501	A star	Suzuki	Red	3	14
503	Indigo	Tata	Silver	3	12
502	Innova	Toyota	White	7	15
509	SX4	Suzuki	Silver	4	14
510	C Class	Mercedes	red	4	35

16. Predict the output of the following queries:
- i. select instr('exams@cbse.nic.in','.');
- ii. select substr('exams@cbse.nic.in',7,4);

iii. select left('exams@cbse.nic.in',5);

17. Reena is working with functions of MySQL. Explain her following:

- i. What is the purpose of now () function?
- ii. How many parameters does it accept?

iii. What is the general format of its return type?

18. Carefully observe the following table named 'stock':

**Table: stock**

Pid	PName	Category	Qty	Price
1	Keyboard	IO	15	450
2	Mouse	IO	10	350
3	Wifi-router	NW	5	2600
4	Switch	NW	3	3000
5	Monitor	O	10	4500
6	Printer	O	4	17000

Write SQL queries for the following:

- (a) To display the records in decreasing order of price.
- (b) To display category and category wise total quantities of products.
- (c) To display the category and its average price.

- (d) To display category and category wise highest price of the products.

19. Ms.Saumya is working on a MySQL table named 'Hotel' having following structure: She need to perform following task on the table

Field	Type	Null	Key	Default	Extra
user_id	varchar(20)	YES		NULL	
name	varchar(20)	YES		NULL	
city	varchar(20)	YES		NULL	
mobile_no	varchar(11)	YES		NULL	

- i. To fetch last 2 characters from the user\_id column.
- ii. To display the values of name column in lower case.
- iii. To display 3 characters from 3rd place from the column city.

Suggest suitable SQL function for the same. Also write the query to achieve the desired task.

## SUBJECT:-MATHEMATICS

1. Express the matrix  $\begin{bmatrix} 2 & -2 & -4 \\ -1 & 3 & 4 \\ 1 & -2 & -3 \end{bmatrix}$  as the sum of symmetric and skew symmetric matrix.
2. If  $A = \begin{bmatrix} \cos \alpha + \sin \alpha & \sqrt{2} \sin \alpha \\ -\sqrt{2} \sin \alpha & \cos \alpha - \sin \alpha \end{bmatrix}$  prove that  
$$A^n = \begin{bmatrix} \cos n\alpha + \sin n\alpha & \sqrt{2} \sin n\alpha \\ -\sqrt{2} \sin n\alpha & \cos n\alpha - \sin n\alpha \end{bmatrix} \forall n \in N$$
3. Ishan wants to donate rectangular plot of land for a school in his village. When he was asked to give dimension of the plot , he told that if its length is decreased by 50 m and breadth is increased by 50 m , then its area will remain same, but length is decreased by 10m and breadth is decreased by 20m , then its area will decreased by  $5300m^2$ . Using matix find the dimension of the plot.
4. A trust invested some money in two types of bonds. The first bond pays 10% interest and the second bond pays 20% interest . The trust received ₹ 2800As interest. However , if trust had interchanged money in bonds, they would have got ₹ 100 less as interest, using matrix method, find the amount invested by the trust.
5. The monthly income of Aryan and Babban are in ratio 3:4 and their monthly expenditures are in the ratio 5:7. If each saves ₹ 15000 per month , find their monthly incomes using matrix method.
6. 10 student were selected from a school on the basis of values for giving awards and were divided into three groups. The first group comprises hard workers , the second group has honest and law abiding students and the third group contains vigilant and obedient students. Double the number of students of the first group added to the number in the second group gives 13 , while combined strength of first and second group is four times that of the third group. Using matrix method find the number of students in each group.
7. Two cricket teams honored their players for three values, excellent batting, to the point bowling and unparallel fielding by giving ₹ x , ₹ y and ₹ z per players respectively. The first team paid respectively 2,2, and 1 player for the above values with a total prize money of ₹ 11 lakhs , while the second team paid respectively 1,2 and 2 players for these values with a amounts to ₹ 9 lakhs . If the total award money for one person each for these values amount to ₹ 6 lakhs, then express the above situation as a matrix equation and find award money per person for each value.
8. The sum of three numbers is 6. If we multiply third number by 3 and add second number to it, we get 11. By adding first and third numbers, we get double of the second number. Represent it algebraically and find the numbers using matrix method.
9. For the matrix  $A = \begin{bmatrix} 2 & -1 & 1 \\ -1 & 2 & -1 \\ 1 & -1 & 2 \end{bmatrix}$  show that  $A^2 - 5A + 4I = o$  hence find  $A^{-1}$

11. Use the product  $A = \begin{bmatrix} 1 & -1 & 2 \\ 0 & 2 & -3 \\ 3 & -2 & 4 \end{bmatrix} \begin{bmatrix} -2 & 0 & 1 \\ 9 & 2 & -3 \\ 6 & 1 & -2 \end{bmatrix}$  to solve the system of equations  $x-y+2z = 1, 2y-3z = 1, 3x-2y+4z = 2$ .

10. If  $A = \begin{bmatrix} 1 & -1 & 0 \\ 2 & 3 & 4 \\ 0 & 1 & 2 \end{bmatrix}$  and  $B = \begin{bmatrix} 2 & 2 & -4 \\ -4 & 2 & -4 \\ 2 & -1 & 5 \end{bmatrix}$  find  $AB$ . use this to solve the following system of equations :

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

12. If  $A = \begin{bmatrix} 1 & 2 & 0 \\ -2 & -1 & -2 \\ 0 & -1 & 1 \end{bmatrix}$  find  $A^{-1}$ . Using it solve the equations  $x-2y=10, 2x-y-z=8, -2y+z=7$

13. Find  $dy/dx$  when  $y = \sin^{-1} \left( \frac{3 \sin x + 4 \cos x}{5} \right)$ .

14. Find  $dy/dx$  when  $y = \sin^{-1} (x\sqrt{1-x} - \sqrt{x} \sqrt{1-x^2})$

15. if  $\sqrt{1-x^2} + \sqrt{1-y^2} = a(x-y)$  Prove that  $\frac{dy}{dx} = \sqrt{\frac{1-y^2}{1-x^2}}$

16. If  $y = \sqrt{x}^{\sqrt{x}^{\sqrt{x}^{\sqrt{x}^{\dots}}}}$  show that  $\frac{dy}{dx} = \frac{y}{2y-x}$

17. Differentiate  $\tan^{-1} \left( \frac{\sqrt{1+x^2}-1}{x} \right)$  with respect to  $\tan^{-1} x$ .

18. If  $x \in \left( \frac{1}{\sqrt{2}}, 1 \right)$  differentiate  $\tan^{-1} \left( \frac{\sqrt{1-x^2}}{x} \right)$  with respect to  $\cos^{-1} 2x\sqrt{1-x^2}$

19. . If  $\sqrt{1-x^6} + \sqrt{1-y^6} = a(x^3 - y^3)$  prove that  $\frac{dy}{dx} = \frac{x^2}{y^2} \sqrt{\frac{1-y^6}{1-x^6}}$  when  $-1 < x < 1$  and  $-1, y < 1$ .

20. if  $y = \log \{x + \sqrt{x^2 + a^2}\}$  prove that  $(x^2 + a^2) \frac{d^2y}{dx^2} + x \frac{dy}{dx} = 0$

21. If  $x = a \cos \theta + b \sin \theta$  and  $y = a \sin \theta - b \cos \theta$  prove that  $y^2 \frac{d^2y}{dx^2} - x \frac{dy}{dx} + y = 0$

22. If  $\sin y = x \cos(a+y)$  then show that  $\frac{dy}{dx} = \frac{\cos^2(a+y)}{\cos a}$

23. If  $y = \sqrt{\cos x + \sqrt{\cos x + \sqrt{\cos x + \dots}}}$  prove that  $(1-2y) \frac{dy}{dx} = \sin x$

24. differentiate  $x^{\sin^{-1} x}$  with respect to  $\sin^{-1} x$ .

25. If  $y = (x + \sqrt{1+x^2})^n$  then show that  $(1+x^2) \frac{d^2y}{dx^2} + x \frac{dy}{dx} = n^2 y = 0$

Activities :

- To demonstrate the function which is not one – one but is onto.
- To verify that the relation R in the set L of all lines in a plan, defined by  $R = \{ (l,m) : l \text{ perpendicular to } m \}$  is symmetric but neither reflexive nor transitive.
- To Draw the graph of  $\sin^{-1} x$  using graph of  $\sin x$  and demonstrate the concept of mirror reflection.
- To find analytically the limit of a function  $f(x)$  at  $x = c$  and also to check the continuity of the function at that point.

**SUBJECT:-YOGA**

- Complete practical file and make project on Shatkarma , Asanas (Types) and Surya Namaskar

