



ST. VIVEKANAND LOTUS VALLEY PUBLIC SCHOOL
CLASS -XII
SESSION 2024-25



ENGLISH

(Reading and writing)

1. Practice comprehension passages (any five) from prescribed book.

2. **Write NOTICES on the following occasions (three of each category)**

(a)Tours (b) sports (c) cultural/ extra curricular activities

(d) lost and found (e) Appeals

3. **Write FORMAL LETTERS on the following topics (three of each category)**

(a)Complaint (b) editor (c) Job Application

4. **Write ARTICLES on the following topics. (Word limit 150-200)**

(a)My vision of future India (b)Digital Education in India

(c)Women safety in India (d)50 years of Earth Day

LITERATURE

5. learn all the chapters (flamingo & vistas) already done in class.

6. Prepare above said chapters' background, theme, message and title.

7. **Thoroughly read all the chapters.(QUESTIONS FOR PRACTICE) (Word limit 200-250 each answer)**

(a)" It was their way of thinking our master for forty years of faithful service and of showing their respect for the country that was theirs no more." How did the people of Frenz's village show their respect for M.Hamel? What values did they hold and what values had they failed to live in their lives? Why is it important to conduct our lives with certain values?

(b)Mental suppression and apathy among the poverty stricken children deprives them of self confidence. Write a paragraph about different values can revive their confidence and help them rewrite their own destinies.

(c)What values of Douglas helped him overcome his fear of water ? Do you think the same values can help you manage your own fears, if any,why/why not ?

(d)Through the depiction of the Tiger king's character and his ultimate destiny,Kalki hints at the neglect of duties by men of elevated status.Men with power must incorporate the values of dedicated work, selflessness and courage. Discuss how such values can utter the destinies of individuals and states. Cite the examples from history where such values served humanity at large.

Project work

Prepare a model and chart of your syllabus including poetry, prose and grammar.(It's mandatory for all).

BANKING

- Q1. What are advantages and disadvantages of debit cards?
- Q2. What are the advantages of keeping shares in demat account?
- Q3. What are the duties & Liabilities of Bailee?
- Q4. What does the Bank assess while issuing Guarantee on behalf of its customers?
- Q5. What are the advantages / disadvantages of Online / Internet Banking?
- Q6. Explain Phishing, skimming and spoofing?
- Q7. Explain the process of ATMs for cash withdrawal?
- Q8. State the meaning, characteristics & limitations of a Computer?
- Q9. What are the frauds in Credit card?
- Q10. Differentiate between Manual accounting and Computerised accounting system?

Make a chart on following topics.

1. Discuss in the precautions to be followed while using ATM card
2. Do a visit to a nearby branch to see the Bank vault with locker facility and see the security arrangement made

BUSINESS STUDIES

Q1. Indian Railways has launched a new broad coach solar power train, which is going to be a path breaking leap towards making trains greener and more environment friendly. The solar power DEMU has 6 trailers, coaches and is expected to save about 21000 liters of diesel and ensure a cost saving of ₹,1200000 per year. Identify and explain the objectives of management achieved by Indian Railways in the above case.

Q2. A successful enterprise has to achieve its goals efficiently and effectively explained?

Q3. The management of Vrinda limited strongly believes that the members of an organisation should work towards fulfilling the common organisational goals. This requires teamwork and integration of efforts of all individuals, departments and specialist. This is because all the individual and departments depend on each other for information and resources to perform their respective activities. Managers need to reconcile differences in approach, timing, efforts or interest. At the same time It should enable all its members to grow and develop. Thus, there is a need to harmony individual goals and organisational goals

- A) identifying and explain the concept of management. Discuss above
- B) The characteristics of management which is reflected from the above para.

Q4. Zoya international limited is a multinational company in which people of various nationalities work together with a team-spirit of unity and harmony in a discrimination free environment. Equal opportunities are available for everyone in the company. The pay and compensation of all the employees is just an equitable

- A) state the principle of management being followed by Zoya international ltd.
- B) Which benefit will Zoya international limited derive following the principle identity in part A?

Q5. Principle of management equip the managers to foresee the cause-and-effect relationship of their decisions and actions. As such, the wastage associated with a trial-and-error approach can be overcome. Principle of management also limit the boundary of managerial discretion so that their decisions may be free from personal prejudices and biases. For example, in deciding the annual budget for different departments, rather than personal preferences, managerial discretion is bounded by the principle of contribution to organisational objectives.

- A) Identify and explain the administration principle of management highlight above
- B) State the point of significance of management principle highlighted above.

Q6. Explain The proces Of planning with examples?

Q7. Delegations helps a manager to extend his area of operations as without it, his activities would be restricted to only what he himself can do. “ Do you agree? give reasons in support of your answer.

Q8” Decentralisation is extending delegation to the lowest level” Comment.

Read the following text and answer question on the basis of the same:

Ms.Jaishree recently completed her post Graduate Diploma in Human Resource Management. A large steel manufacturing company, which employees 800 persons appointed her as its Human Resource Manager.ms. Jaishree has been given complete charge of the company's Human Resource Department. The company has an expansion plan in hand which may require another 200 persons for various types of additional requirements.

Q9. Identify the function of management highlighted in the above case

- A) planning B)organising C)staffing D)directing.

Q10. Identify he step of function of management identify in the above case

- A) Estimating manpower requirement, B) recruitment
- C) selection D)placement and orientation.

Q11. Identify the concept which will help in deciding the number of persons required.

- A) Workload analysis B)work force analysis,
- B) human resources planning D) staffing

Q12. identify the next 2 steps in the function of management. Identify in part(a) to fulfil the additional requirement of 200 persons.

- A) recruitment selection B) selection placement and orientation
- C) placement and orientation training and development
- D) training change development performance appraisal.

Q13. Brinda owns a Tyre manufacturing unit in Saharanpur with branches across the state of Uttar Pradesh. Whenever there is an increase in demand more employees are needed. Sometime Brenda shifts the employees from one unit to another and sometime moves

them to higher positions giving them more responsibilities. In this way, she tries to meet the increased demand with the existing workforce.

Identify And explain the 2 sources of recruitment practiced by Brinda.

Q14. A public transport corporation has hired 2000 buses for the different routes for the passengers of metropolitan city. In order to fill vacancies, it advertised in the newspaper and number of applications applied for the same. The company has to now undertake the process of selection to identify and select the best. Explain the the first 6 steps involve in the process.

Q15. Charu is working in a company on permanent basis. As per the job agreement , she had to work for 8 hours a day and was free to work overtime. Charu worked overtime. Due to over time she fell ill and had to take leave from her work. No one showed concern and enquired about her health. She realised that she was fulfilling only some of her needs while some other needs still remained to be fulfilled.

- A) Identify the needs of Charu discussed in the above para by quoting the lines
- B) Also explain two other needs of Charu followed by the above needs, which still remain to be satisfied.

CHEMISTRY

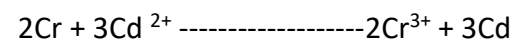
- Prepare the assigned model.
- Complete your practical file
- Practice NCERT exemplar questions of chapter solution , electrochemistry and biomolecules in your notebook.

Solve the given assignment.

ASSIGNMENT OF ELECTROCHEMISTRY

1. The molar conductivity of 1.5M solution of an electrolyte is found to be $138.95 \text{ cm}^2 / \text{mol}$. Calculate the conductivity of their solution.
2. The conductivity of 0.2 M KCl at 298K is 0.0248 S/cm . Calculate its molar conductivity.
3. The resistance of a conductivity cell containing 0.001 M KCl solution at 298K is 1500 ohm. What is the cell constant if the conductivity of 0.001M KCl solution at 298K is $0.146 \times 10^{-3} \text{ S/cm}$?
4. At 18°C , the conductivity at infinite dilution of NH_4Cl , NaOH, NaCl are 129.8, 217.4, $108.9/\text{ohm}$ respectively. If the conductivity of N/100 solution of NH_4OH is $9.93/\text{ohm}$, calculate the degree of dissociation of NH_4OH at this dilution and also calculate its dissociation constant.
5. The conductivity of a saturated solution of AgCl is $1.24 \times 10^{-6} / \text{ohm/cm}$. The ionic conductivity of Ag^+ and Cl^- ions at infinite dilution are 53.8 and $65.3/\text{ohm/cm}^2/\text{mol}$. Calculate the solubility of AgCl.
6. Represent the cell in which following reaction takes place
 $\text{Mg} | \text{Ag}^{2+}(0.0001\text{M}) \text{-----} \text{Mg}^{2+} (0.13\text{M}) + 2\text{Ag}$
Calculate E_{cell} if $E^\circ_{\text{cell}} = 3.17 \text{ V}$.
7. Calculate the electrode potential of hydrogen electrode in contact with a solution whose pH is 10.
8. Calculate the emf of the cell in which the following reaction takes place.
 $\text{Ni} + 2\text{Ag}^+(0.002\text{M}) \text{-----} \text{Ni}(0.16\text{M}) + 2\text{Ag}$ $E^\circ_{\text{cell}} = 1.05\text{V}$

9. In the button cell widely used in watches and other devices the following reaction takes place
 $\text{Zn} + \text{Ag}_2\text{O} + \text{H}_2\text{O} \longrightarrow \text{Zn}^{2+} + 2\text{Ag} + 2\text{OH}^-$ $E_{\text{Zn}^{2+}/\text{Zn}}^0 = -0.76\text{V}$, $E_{\text{Ag}^+/\text{Ag}}^0 = 0.34\text{V}$
 Determine G^0 and E^0 . 10. Calculate the standard cell potential E^0 , G^0 and equilibrium constant of the reaction.

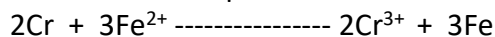


$$E_{\text{Cr}^{3+}/\text{Cr}}^0 = -0.74\text{V} \quad E_{\text{Cd}^{2+}/\text{Cd}}^0 = -0.40\text{V}$$

11. What is meant limiting molar conductivity ?

12. Why on dilution molar conductivity of CH_3COOH increases drastically but of CH_3COONa increases gradually?

13. Write Nernst equation for the reaction



14. What is the role of ZnCl_2 in a dry cell?

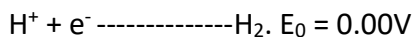
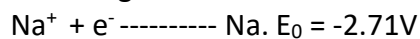
15. Unlike dry cell, mercury cell has a constant cell potential through out its life. Why?

16. What is the formula of rust?

17. Name the cells used in i) hearing aids ii) Apollo space programme iii) automobiles and invertors. Write chemical equations for the cells used.

18. What are the two advantages of hydrogen oxygen fuel cells ?

19. Following reactions occur at cathode during electrolysis of aqueous sodium chloride



Out of these which is feasible at cathode and why? ?

20. How many molecules of chlorine should be deposited from molten sodium chloride in one minute by current of 300 milliamperes ?

21. In electrolysis of aqueous solution of NaCl hydrogen not sodium is liberated at cathode. Explain why?

22. Why does dry cell become dead after long time, even if it has not been used?

23. Name the fuel other than hydrogen that can be used in fuel cells.

24. How many faradays are released when 12.7g of copper metal is changed into copper ?
 (ans-0.4F)

25. Write chemical equations for the steps of rusting.

ASSIGNMENT OF SOLUTIONS

1. What are azeotropes. Give an example.

2. Give reason when 30 ml of ethyl alcohol and 30 ml of water are mixed the volume of resultant solution is more than 60 ml.

3. Define osmotic pressure.

4. What is semipermeable membrane give two examples.

5. 10% solution of urea is isotonic with 20% solution of X at same temperature calculate molecular weight of X.

6. Give an example of each of solid in gas and liquid in gas solution.

7. What is the expected value of van't Hoff factor for $\text{K}_3[\text{Fe}(\text{CN})_6]$.

8. A solution is prepared by dissolving 10 g of non volatile solute in 200 g of water. It has vapour pressure of 31.84 mm Hg at 308 K. Calculate the molar mass of solute if vapour pressure of pure water at 308 K is 30 mm Hg.

9. 18 g of glucose is dissolved in 1 kg of water in a saucepan. At what temperature will the water boil at 1.103 bar K_b for water is $0.52 \text{ K kg mole}^{-1}$.

10. 1g of non electrolyte solute dissolve in 50 g of benzene lower the freezing point of benzene by 0.40 K. The freezing point depression constant of benzene is $5.12 \text{ k kg per mole}$ find the molar mass of solute.

11. 200 cm^3 of an aqueous solution of proteins contain 1.26 g of protein. The osmotic pressure of solution at 300 K is found to be $2.52 \times 10^{-3} \text{ bar}$. Calculate molar mass of protein.

12. A solution of urea in water has a boiling point of 373.128 K. Calculate the freezing point of same solution if $K_f = 1.86 \text{ Km}^{-1}$, $K_b = 1.02 \text{ Km}^{-1}$

MUSIC

1. Draw a diagram of Sangeet and its types on A4 sheets.

2 Writing of alankar on A3 sheets.

3. Make a diagram of Tanpura with its parts on A4 sheet

4. Writing a notation of Ek taal on with its introduction on A4 sheet

5. Make a project report on Tansen with his life sketch and achievements in Indian music with his coloured pictures on A4 sheets.

6. Revise all the topics we have done in the music note.

HINDI

(1) निम्नलिखित विषयों पर 100 से 120 शब्दों में रचनात्मक लेख लिखिए-

(क) अंतरराष्ट्रीय जगत में भारत का बढ़ता कद

(ख) मीडिया की विश्वसनीयता पर लगते प्रश्न चिन्ह

(ग) असफलताएं जीवन प्रक्रिया का स्वाभाविक अंग

(घ) गांवों से शहरों की ओर बढ़ता पलायन

(ङ) एकल परिवारों में बुजुर्गों की स्थिति

(2) निम्नलिखित प्रश्नों के उत्तर पाठ्यपुस्तक 'आरोह' के आधार पर दीजिए-

(क) बाज़ार जाते समय आपको किन-किन बातों का ध्यान रखना चाहिए? 'बाज़ार दर्शन' पाठ के आधार पर उत्तर दीजिए।

(ख) सभी को अपने नाम का विरोधाभास लेकर जीना पड़ता है। 'भक्तिन' पाठ में ऐसा क्यों कहा गया है?

(ग) पुत्र की चाह में परिवार के लोग ही कन्या को जन्म देने वाली मां के दुश्मन हो जाते हैं। इस प्रवृत्ति पर 'भक्तिन' पाठ के आधार पर टिप्पणी कीजिए।

(घ) महादेवी वर्मा तथा भक्तिन के संबंधों की तुलना किससे की गई है और क्यों? पाठ के आधार पर उत्तर दीजिए।

(ङ) स्त्री के विवाह संबंधी मानव अधिकार को कुचलने की परंपरा का पालन 'भक्तिन' पाठ में किस प्रकार हुआ है? स्पष्ट कीजिए।

(च) क्या आधुनिक युग में भी बेटी पैदा करने पर स्त्री को उपेक्षा ही सहनी पड़ती है? इस विषय पर अपने विचार प्रकट कीजिए।

(छ) ऊंचे बाज़ार का आमंत्रण आग्रह से किस प्रकार भिन्न है? स्पष्ट कीजिए।

(ज) 'कैमरे में बंद अपाहिज' कविता के आधार पर सिद्ध कीजिए कि कविता संवेदनहीन सूचना तंत्र पर एक व्यंग्य है।

(झ) एक अपाहिज व्यक्ति का इस प्रकार से साक्षात्कार लेना किस उद्देश्य को दर्शाता है? पाठ के आधार पर स्पष्ट कीजिए।

(ञ) आपकी राय में अपंगों के प्रति कैसा व्यवहार होना चाहिए? कविता के आधार पर लिखिए।

(ट) शरद के आगमन पर प्रकृति में क्या-क्या परिवर्तन होते हैं? 'पतंग' कविता के आधार पर लिखिए।

(ठ) किशोर और युवा वर्ग समाज के मार्गदर्शक है-पतंग' कविता के आधार पर स्पष्ट कीजिए।

(ड) फूल और चिड़िया को कविता की कौन-कौन सी जानकारी नहीं है? 'कविता के बहाने' कविता के आधार पर बताइए।

(ढ) समर्थन और वाह-वाही से क्या दुष्परिणाम हो सकते हैं? 'बात सीधी थी पर' कविता के आधार पर बताइए।

(ण) जन्म से ही वे अपने साथ लाते हैं कपास••••। कपास के बारे में सोचें कि कपास से बच्चों का क्या संबंध बन सकता है? 'पतंग' कविता के आधार पर उत्तर दीजिए।

(1) जनसंचार के आधार पर निम्नलिखित प्रश्नों के उत्तर दीजिए-

(क) समाचार लेखन में 'आमुख' की क्या भूमिका होती है? स्पष्ट कीजिए।

(ख) आमतौर पर भ्रष्टाचार, अनियमितताओं और गड़बड़ियों को उजागर करने के लिए किस रिपोर्ट का उपयोग किया जाता है व क्यों? स्पष्ट कीजिए।

(ग) समाचार लेखन के लिए ककार कौन-कौन से हैं? प्रत्येक पर प्रकाश डालिए।

(घ) समाचार मुख्य रूप से कितने प्रकार के होते हैं? संक्षेप में चर्चा कीजिए।

(ङ) समाचार लेखन हेतु आवश्यक तथ्यों का अपने शब्दों में उल्लेख कीजिए।

(च) मुद्रित माध्यमों के महत्व पर प्रकाश डालिए।

(छ) रेडियो नाटक एक श्रव्य विधा है। इसकी अवधि सीमित होती है। रेडियो नाटक में समय के अनुसार पात्रों की संख्या कितनी होनी चाहिए?

टिप्पणी-

जुलाई लघु परीक्षा के लिए निम्नलिखित पाठ्यक्रम याद कीजिए-

गद्य भाग- भक्तिन, बाजार दर्शन, काले मेघा पानी दे।

पद्य भाग- कैमरे में बंद अपाहिज़, कविता के बहाने, बात सीधी थी पर, पतंग।

जनसंचार के विभिन्न माध्यमों पर आधारित प्रश्न उत्तर।

Activities-

(क) शरद ऋतु का सुंदर वर्णन करते हुए एक कविता लिखिए।

(ख) जल संरक्षण के विभिन्न स्रोतों को दर्शाता हुआ एक आकर्षक मॉडल तैयार कीजिए।

(ग) प्राचीन लोक कलाओं के नाम, उनके चित्र तथा उनका संक्षिप्त विवरण देते हुए एक आकर्षक मॉडल तैयार कीजिए।

(घ) दोहा, चौपाई, सोरठा, कवित्त, सवैया आदि छंदों के विषय में जानकारी एकत्र कर A4 सीट पर लिखिए।

(ङ) आठ से दस प्रकार के विभिन्न वृक्षों के चित्र तथा उनका संक्षिप्त वर्णन A4 सीट पर कीजिए।

ECONOMICS

Ques 1 Explain the difference between micro economics and macro economics. Give suitable examples

Ques 2 Distinguish between intermediate and final goods , stock and flow variables with examples

Ques 3 Explain the term normal residents of a country . Are the following normal residents of India

(1) Indians employed in world health organisation

(2) An American tourist staying in India.

Ques 4 Distinguish between domestic income and national income by giving suitable examples

Ques 5 "Money is what money does " Explain

Ques 6 How does RBI classify the supply of money

Ques 7 " commercial banks create money in the economy" comment .

Ques 8 How does the central bank of a country control the money supply in an economy?

Ques 9 What is consumption function? Illustrate it's behaviour using a suitable examples

Ques 10 Draw a diagram showing straight line consumption function. From it how would you derive a saving function

Ques 11 Explain the determination of equilibrium level of income using saving - investment approach. use diagram

Ques 12 Define investment multiplier. What is the relationship between investment and MPC

Project work

Working model on any topic related to aggregate demand , national income , money & banking.

HISTORY

Ques 1 Describe briefly the drainage system of the Harappan cities

Ques 2 List the material used to make beads in the Harappan civilization. Describe the process by which one kind of bead was made.

Ques 3 Discuss special features of Mohenjodaro.

Ques 4 Discuss the functions that may have been performed by rulers in Harappan society.

Ques 5 Describe the economic, social and religious life of Harappan people

Ques 6 How did the Harappan civilization decline?

Ques 7 Describe the stage of classification of discoveries in reconstructing the past.

Ques 8 List some of the problems faced by epigraphists.

Ques 9 Examine the system of Mauryan administration.

Ques 10 Discuss the notions of kingship that developed in the post- Mauryan period.

Ques 11 write any four causes for the decline of the Mauryan empire.

Ques 12 what is the importance of emergence of Gupta age in Indian history?

PHYSICAL EDUCATION

1) Prepare suriya namaskar poses on chart.

2) Prepare BMI chart

3) Write 1 & 2 chapters in notebook

4. Assignment.

Common posture deformities, knock knees, flat foot, round shoulder, lordosis, kyphosis, scoliosis, Bow legs.

Maths

Assignment -1

- Let $f(x + y) = f(x) + f(y) \forall x, y \in \mathbb{R}$. Suppose that $f(6) = 5$ and $f'(0) = 1$, then $f'(6)$ is equal to
a. 1 b. 30 c. None of these d. 25
- Derivative of $\log |x|$ w.r.t. $|x|$ is
a. None of these b. $\frac{1}{x}$ c. $\pm \frac{1}{x}$ d. $\frac{1}{|x|}$
- The function $f(x) = 1 + |\sin x|$ is
a. differentiable everywhere b. continuous everywhere
c. differentiable nowhere d. continuous nowhere
- $\lim_{x \rightarrow 0} \frac{1 - \cos x}{x \sin x}$ is equal to
a. 1 b. 2 c. 0 d. $\frac{1}{2}$
- $\lim_{x \rightarrow \pi/4} \frac{\cos x - \sin x}{x - \frac{\pi}{4}}$ is equal to
a. $-\frac{2}{\sqrt{2}}$ b. -1 c. $-\frac{1}{\sqrt{2}}$ d. $\frac{2}{\sqrt{2}}$
- The value of c in Mean value theorem for the function $f(x) = x(x - 2)$, $x \in [1, 2]$ is ____
- The set of points where the function f given by $f(x) = |2x - 1| \sin x$ is differentiable is ____.
- Differential coefficient of $\sec(\tan^{-1} x)$ w.r.t. x is ____
- Discuss the continuity of the function $f(x) = \sin x \cdot \cos x$.
- Determine the value of ' k ' for which the following function is continuous at $x = 3$: $f(x) = \begin{cases} \frac{(x+3)^2 - 36}{x-3}, & x \neq 3 \\ k, & x = 3 \end{cases}$
- Determine the value of the constant ' k ' so that the function $f(x) = \begin{cases} \frac{kx}{|x|}, & \text{if } x < 0 \\ 3, & \text{if } x \geq 0 \end{cases}$ is continuous at $x = 0$.
- Find $\frac{dy}{dx}$, $y = \cos^{-1} \left(\frac{1-x^2}{1+x^2} \right)$, $0 < x < 1$
- Show that the function defined by $f(x) = \cos(x^2)$ is a continuous function.
- Determine if f defined by $f(x) = \begin{cases} x^2 \sin \frac{1}{x}, & \text{if } x \neq 0 \\ 0, & \text{if } x = 0 \end{cases}$ is a continuous function.
- Find the value of k so that the following function is continuous at $x = 2$.
$$f(x) = \begin{cases} \frac{x^3 + x^2 - 16x + 20}{(x-2)^2}, & x \neq 2 \\ k, & x = 2 \end{cases}$$
- If $x^y + y^x = a^b$, then find $\frac{dy}{dx}$.
- If $e^y(x+1) = 1$, then show that $\frac{d^2y}{dx^2} = \left(\frac{dy}{dx} \right)^2$.
- Find $\frac{dy}{dx}$ if $y^x + x^y + x^x = a^b$.

Assignment -2

1. **Lt** $\frac{1-\cos x}{x^2}$ is equal to
a. 1 b. -1 c. $\frac{1}{2}$ d. 0
2. Let $f(x) = \begin{cases} e^{1/x}, & x < 0 \\ x, & x \geq 0 \end{cases}$, then **Lt** $f(x)$.
a. does not exist b. is equal to 0
c. is equal to non - zero real number d. None of these
3. Let f and g be differentiable functions such that $fg = I$, the identity function. If $g'(a) = 2$ and $g(a) = b$, then $f'(b) =$.
a. -2 b. None of these c. 2 d. $\frac{1}{2}$
4. $\frac{d^4}{dx^4}(\sin^3 x)$ is equal to
a. $\frac{3}{4} \cos x - \frac{3^4 \cos 3x}{4}$ b. None of these
c. $\frac{3 \sin x - 3^4 \sin 3x}{4}$ d. $\frac{3}{4} \sin x - \frac{3^4 \cos 3x}{4}$
5. The differential coefficient of $\log(|\log x|)$ w.r.t. $\log x$ is
a. $\frac{1}{x|\log x|}$ b. $\frac{1}{x \log x}$
c. None of these d. $\frac{1}{\log x}$
6. The value of c in Rolle's Theorem for the function $f(x) = e^x \sin x, x \in [0, \pi]$ is \square
7. The set of points where the functions f given by $f(x) = |x - 3| \cos x$ is differentiable is \square
8. The derivative of $\log_{10} x$ w.r.t. x is \square
9. Differentiate the following function with respect to x : $\sin(ax + b)$.
10. Differentiate the following function with respect to x : $\cos(\log x + e^x), x > 0$.
11. Find $\frac{dy}{dx}$ if $y = \frac{\sin(ax+b)}{\cos(cx+d)}$.
12. If $x = a \sec^3 \theta$ and $y = a \tan^3 \theta$, find $\frac{dy}{dx}$ at $\theta = \frac{\pi}{3}$.
13. Find $\frac{dy}{dx}$, if $y = \sin^{-1} \left(\frac{2x}{1+x^2} \right)$.
14. Examine the continuity of the function $f(x) = x^3 + 2x^2 - 1$ at $x = 1$.
15. Find the value of k so that the function f is continuous at the indicated point:
$$f(x) = \begin{cases} \frac{1 - \cos kx}{x \sin x}, & \text{if } x \neq 0 \\ \frac{1}{2}, & \text{if } x = 0 \end{cases} \text{ at } x = 0$$
16. If $y = (x + \sqrt{1 + x^2})^n$, then show that $(1 + x^2) \frac{d^2y}{dx^2} + x \frac{dy}{dx} = n^2 y$.
17. If $y^x = e^{y-x}$ prove that $\frac{dy}{dx} = \frac{(1+\log y)^2}{\log y}$.
18. Find $\frac{dy}{dx}$, if $y = (x \cos x)^x + (x \sin x)^{\frac{1}{x}}$.

Assignment -3

1. $\int \frac{1}{e^x+1} dx$ is equal to
a. $\log(1 + e^{-2x}) + C$ b. $\log(e^{-2x} - 2x) + C$
c. $-\log(1 + e^{-x}) + C$ d. $\log(e^{3x} + x) + C$
2. The function $f(x) = \int_0^x \log(t + \sqrt{1 + t^2}) dt$ is
a. an odd function b. an even function
c. Neither odd nor Even d. a periodic function

3. $\int \frac{\cos 4x+1}{\cot x+\tan x} dx$ is equal to

a. $-\frac{1}{6} \cos^3 2x + C$

b. $\frac{1}{6} \cos^3 2x + C$

c. $-\frac{1}{6} \sin^3 2x + C$

d. $-\frac{1}{2} \sin^2 6x + C$

4. $\int \frac{1}{\sqrt{1-x}} dx$ is equal to

5. $-2\sqrt{1-x} + C$

6. $3\sqrt{x-2} + C$

7. $2\sqrt{1-x} + C$

8. $\sqrt{1-x} + C$

9. $\int (1 - \cos x) \operatorname{cosec}^2 x dx$ is equal to

a. $\frac{1}{2} \tan x + C$

b. $\cot \frac{x}{2} + C$

c. $\tan \frac{x}{2} + C$

d. $3 \cot \frac{2x}{3} + C$

10. The value of integral $\int_0^1 \frac{x dx}{\sqrt{1+x^2}}$ is \$ \quad \$.

11. The indefinite integral of $2x^3 + 4$ is \$ \quad \$.

12. The definite integral of $\int_1^3 (x^2 + 3x + 2) dx$ is . \$ \quad \$

13. Evaluate $\int \frac{x^3 - x^2 + x - 1}{x - 1} dx$.

14. Evaluate $\int_0^{\pi/2} \tan^2 x dx$.

15. Write the value of $\int \frac{\sec^2 x}{\operatorname{cosec}^2 x} dx$.

16. Evaluate $\int \frac{x^3 + x}{x^4 - 9} dx$

17. Integrate the function $\tan^2(2x - 3)$.

18. Evaluate $\int \frac{x}{\sqrt{x+1}} dx$. (2)

19. Integrate the function $\sqrt{1 + 3x - x^2}$.

20. Integrate the function $\frac{(x-3)e^x}{(x-1)^3}$.

21. Evaluate $\int \sin^{-1} \sqrt{\frac{x}{a+x}} dx$.

22. Evaluate $\int_1^3 (3x^2 + 1) dx$ by the method of limit of sum.

BIOLOGY

- **REVISE ALL THE WORK DONE IN YOUR NOTEBOOK**
- **MAKE ANY THREE POSTER ON A3 SHEET ON THE GIVEN TOPIC.**
 - 1. Bacteriophage virus**
 - 2. DNA structure**
 - 3. Conservation of future diversity**
 - 4. Prancrption in Prokaryotes & Eukaryotes.**
 - 5. Double fertilization in Angiosperms**
 - 6. Female Foeticide**
 - 7. Bacteriophage virus**
- **MAKE ANY WORKING MODEL ON THE MENTIONED ROLL NO. BELOW**
 - 1. HUMAN DIALYSIS** **ROLL NO.(1,2)**
 - 2. SEWAGE TREATMENT PLANT** **ROLL NO.(3,4)**
 - 3. APPLICATION OF ORGANOID TECHNOLOGY** **ROLL NO. (5,6)**
 - 4. ANTISENSE RNA TECHNOLOGY** **ROLL NO. (7,8)**
 - 5. BIOPLASTIC** **ROLL NO.(9,10)**
 - 6. MENSTURAL CYCLE** **ROLL NO.(11,12)**
 - 7. BIO GAS PLANT** **ROLL NO.(13,14 &18)**
 - 8. DOUBLE HELICAL STRUCTURE OF DNA** **ROLL NO.(15,16 &17)**

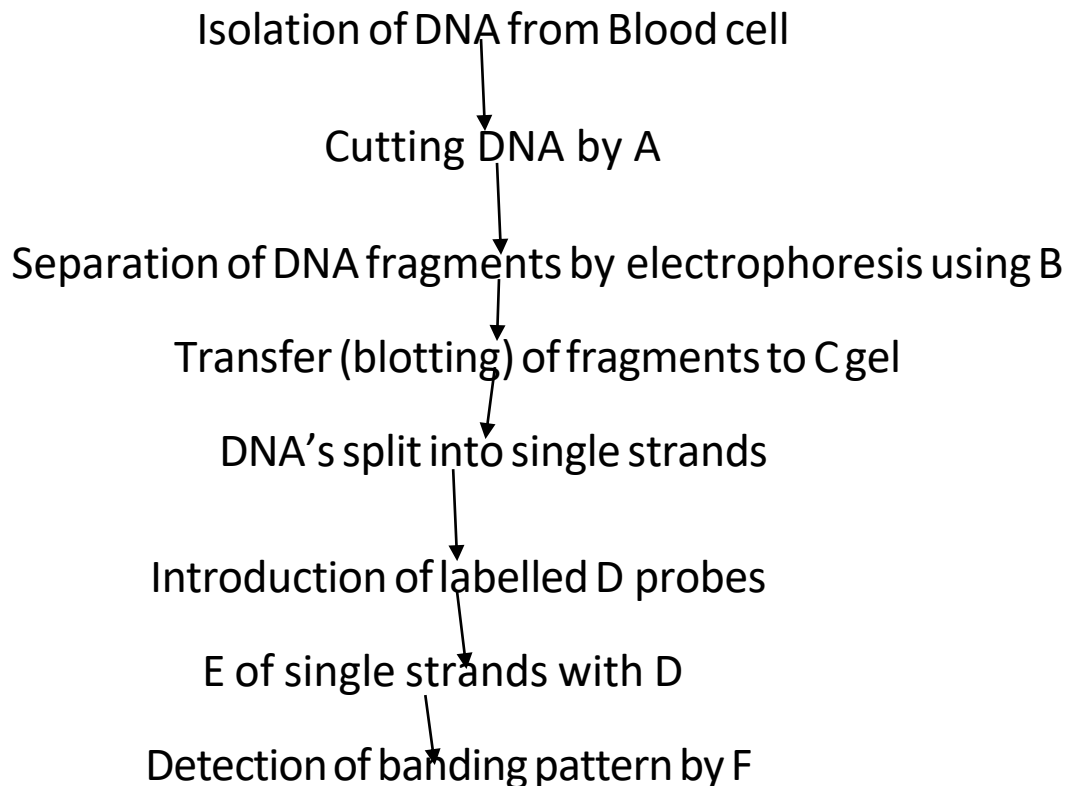
ASSIGNMENT -1

1. State the role of histones in DNA packing.
2. What is chargaff rule?
3. How is repetitive/ satellite DNA separated from bulk genomic DNA for various experiments.

MOLECULAR BASIS OF INHERITANCE

Assignment-1

1. State the role of histones in DNA packaging.
2. What is Chargaff rule?
3. How is repetitive/satellite DNA separated from bulk genomic DNA for various genetic experiments.
4. i) Name the Scientist who suggested that the genetic code should be made of a combination of three nucleotides.
ii) Explain the basis on which he arrived at this conclusion
5. Write the full form of VNTR. How is VNTR different from probe?
6. How is the translation of mRNA terminated? Explain.
7. Name the category of codons UGA belongs to. Mention another codon of the same category.
8. Explain their role in protein synthesis.
9. Following a severe accident, many charred-disfigured bodies are recovered from the site making the identification of the dead very difficult. Name and explain the technique that would help the authorities to establish the identity of the dead to be able to handover the dead to their respective relatives.
10. The following is the flow chart highlighting the steps in DNA fingerprinting technique. Identify A, B, C, D, E and F.



11. Name any three viruses with RNA as the Genetic material.
12. What is the reason for the discontinuous synthesis of DNA on one of the parental strands?
13. The sequence of the coding strand of DNA in a transcription unit is mentioned below.
3' AATGCAGCTATTAGG 5'
Write the sequence for:
Its complementary strand Its mRNA
14. What is DNA polymorphism?
15. Comment on the statement "Retroviruses do not follow central dogma."
16. Describe the role of the ribosome in translation.
17. What is cistron? Differentiate between monocistronic and polycistronic transcription units.
18. Is it possible to use DNA probes such as VNTRs in the DNA fingerprinting of a bacteriophage?
19. Why does the lac operon show a low level of expression all the time?
20. Can alternate splicing of exons enable a structural gene to code for several iso-proteins from one and the same gene? Give reason.
21. Enumerate the post-transcriptional modifications in a eukaryotic mRNA.
22. What is an operon? Explain an inducible operon.
23. (i) Name the enzyme responsible for transcription of tRNA and the amino acid, the initiator tRNA gets linked with.
(ii) Explain the role of initiator tRNA in initiation of protein synthesis.
24. where do transcription and translation occur in bacteria and eukaryotes respectively? Explain the complexities in transcription and translation in eukaryotes that are not seen in bacteria.
25. Why is charging of tRNA necessary during translation process

ASSIGNMENT-2

1. Why sibiligs sometimes look so similar to each other and sometimes so different?
2. What is the relationship between Genetic variation and sexual reproduction?
3. How our ancestors developed organisms with desirable characteristics?
4. Name the well-known Indian Cow Breed?
5. How do we know that our ancestors knew about the inheritance of characters and where they lacked?
6. Who proposed the laws of inheritance in living organisms? When? How?
7. Define true breeding line?
8. What were factors according to the Mendel?
9. What is Punnet square? Who developed it?
10. With the help of a binomial expression $(ax+by)^2$ explain 1:2:1 genotypic ratio obtained by Mendel.
11. Which law of inheritance is Universal law of inheritance?
12. Why are some alleles dominant and some recessive?
13. Multiple alleles can be found only in population studies. Explain.
14. In a dihybrid cross, the punnet square has 16 sub-squares but 16 genotypes are not present .Why. ?
15. Who discovered the Mendel's law of inheritance?
16. Who gave the experimental verification for the chromosomal theory of inheritance ?
17. How will you differentiate male fruit flies from female fruit flies?
18. What was the contribution of Alfred Sturtevant ?
19. How was genetic map useful in whole genome sequencing?
20. What is the principle of polygenic inheritance?
21. What is the principle of pleiotropy?
22. What is the contribution of Henking in sex determination?
23. Is the no. of male and female eye equal in XO type of sex determination ?
24. Why X – chromosome named as sex chromosomes?
25. What type of sex determination is present in Drosophila?
26. Define parthenogenesis.
27. Name two phenomena which leads to DNA variation?
28. Define Mutagens.
29. What is pedigree analysis? Mention its significance?
30. Define and design a test cross

Accountancy

Assignment Worksheet 1

Select the Correct Alternative

1. According to "The relation between persons who have agreed to share profits of a business carried on by all or any of them acting for all"-
(a) Batliboi (b) L.H. Hancy
(c) Spicer and Pegler (d) Indian Partnership Act, 1932.
2. Main characteristics of Indian Partnership Act 1932, are-
(a) More than one person (b) To earn the profit object
(c) Relation of owner and as an agent (d) All the above.
3. The relation of partner with the firm is-
(a) As manager (b) As an agent and owner
(c) As a servant (d) As a monopolist.
4. In the absence of Partnership Deed, the interest is allowed on the loan given by the partners to the firm-
(a) 9% per annum (b) 8% per annum
(c) 6% per annum (d) 5% per annum
5. In the absence of Partnership Deed, the interest is allowed on the capital of the partner-
(a) No interest is allowed (b) @ 9% per annum
(c) @5% per annum (d) 6% per annum
6. In Profit and Loss Appropriation Account-
(a) Recording of transactions related to partnership firm
(b) Recording of transactions related to partners only
(c) Recording of Salary and Commission only given to the partners
(d) Recording of only the interest on loan of the partners.
7. According to Profit and Loss Account, the net profit for the year is ₹ 29,977. The total interest on the Partner's Capital is ₹ 3,250 and interest on the drawings of partners is 900. The net profit according to Profit and Loss Appropriation Account will be-
(a) ₹2,582 (b) ₹ 32,327 (c) ₹27,627 (d) ₹29,077.
8. According to Profit and Loss Account, the net profit for the year is ₹25,000. Interest on the loan of a partner is ₹800 and the Commission of the another partner is ₹ 1,000. The interest on the drawings of partners is ₹ 500. The net profit according to Profit and Loss Appropriation Account will be-
(a) ₹25,700 (b) ₹23,700 (c) ₹ 26,300 (d) None of the above.
9. To keep the accounts of partners on fluctuating Capital Method the accounts opened in the firm's books Are :
(a) Partner's Capital Accounts (b) Only Partner's Current Accounts
(c) Partners Drawings Accounts and Current Accounts
(d) Partner's Capital Accounts and Partner's Current Account.
10. To keep the accounts of partners on fixed capital method the accounts opened in the firm's books are-
(a) Partner's Capital Account (b) Partner's Current Accounts Only
(c) Partner's Capital Accounts and Drawings Account (d) Partner Capital Accounts and Current Accounts.

11. If date of drawings of the partner's is not give in the question, then interest is charged for-
- (a) 3 Months (b) 6 Months (c) 9 Months (d) 12 Months.
12. X is a partner in a firm. He withdraws 200 per month as drawings from the firm on the 1st day of each month. The rate of interest on drawings is @ 5% per annum and books are closed on 31s December. In this case interest on drawings will be
- (a) ₹60 (b) ₹65 (c) ₹120 (d) ₹30
13. If in the above question no. 12, drawings are made at the end of each month, the amount of interest on drawings will be-
- (a) ₹55 (b) ₹60 (c) ₹30 (d) ₹120
14. In the above question no. 12, if drawings are made in the middle of each month, the amount of interest on drawings will be-
- (a) 120 (b) ₹55 (c) ₹60 (d) 65
15. Balance of Ram's Capital is 80,000 in the beginning of the year. He withdraws 20,000 from the firm in the middle of the year. He is entitled to get the interest on capital @ 10% per annum. In this case interest on his capital will be-
- (a) ₹8,000 (b) ₹4,000 (c) ₹7,000 (d) ₹6,000
16. B drew 6,000 at the end of each month. The deed provides interest on drawings @ 10% pa What will be the amount of interest on drawings ?
- (a) ₹3,300 (b) ₹3,000 (c) ₹3,600 (d) ₹4,200
17. Below are given some characteristics of partnership, state which of them is correct –
- (a) At least three persons are necessary for forming a partnership
- (b) Partnership arises from status
- (c) The Business of the firm can be conducted by all the partners or by any one of the partner on behalf of all
- (d) The liability of the partners is limited.
18. In Profit and Loss Appropriation Account are recorded-
- (a) Interest on Partner's Capital (b) Interest on Partner's Drawings
- (c) Salary and Commission to Partners (d) All of the above.
19. According to Profit and Loss Account, the net profit for the year is ₹30,000. The total interest on the Partner's Capital is 2,000 and the salary of a partner is 6000. Total interest on partner s drawings is ₹1.200. The net profit according to Profit and Loss Appropriation Account will be :
- (a) ₹23,200 (b) ₹24,800 (c) ₹36,800 (d) ₹32,800
20. According to Profit and Loss Account the net profit for the year is ₹4,000. Total interest on partner's capital is 3,600 and interest on a partner's loan is 2.000 Total interest on partner's drawings is 300, the result of the Profit and Loss Appropriation Account will be
- (a) ₹5,300 Profit (b) ₹2,700 Profit (c) ₹1,300 Loss (d) ₹21,000 Profit.
21. In the absence of partnership deed interest @ 6% p.a. is provided –
- (a) On partner's initial capital
- (b) On partner's opening balances of current accounts
- (c) On amounts paid by partners as loan to the firm
- (d) On closing balances of partner's capital accounts.

22. In case of fixed capital the salary payable to the partner will be credited to :

- (a) Partner's Capital A/cs (b) Partner's Current A/cs
(c) Salary A/cs (d) Profit & Loss A/c

23. A is a partner in a firm. He withdraws ₹ 1,000 per month as drawings from the firm on the first day of each month. The rate of interest on drawings is @ 6% per annum and books are closed on 31st December each year In this case interest on drawings will be :

- (a) ₹720 (b) ₹360 (c) ₹390 (d) ₹540

24. If in the above question no. 23 drawings are made at the end of each month, the amount of interest on drawings will be

- (a) ₹360 (b) ₹330 (c) ₹720 (d) ₹540

25. In the above question no. 23 if drawings are made in the middle of each month, the amount of interest on drawings will be

- (a) ₹360 (b) ₹720 (c) ₹540 (d) ₹33

26. The Partnership Deed provided that interest on partner's drawings will be charged @ 9% annum During the year ended Dec, 2019 a partner withdraws ₹ 5,000 in the beginning of each quarter In this case the amount of interest on partner's drawings will be

- (a) ₹1,800 (b) ₹900 (c) ₹1,350 (d) ₹1,125

27. Balance of Shyam's Capital is 1,20,000 in the beginning of the year. He withdraws 40,000 from the firm in the middle of the year. He is entitled to get the interest on capital @ 9% per annum. In this case interest on his capital will be

- (a) ₹7,200 (b) ₹9,000 (c) ₹5,400 (d) ₹10,800

28. The amount of Joint Life Policy Premium may be treated as

- (a) Business Expenditure
(b) Investment
(c) Surrender value of policy is to be treated as an Asset
(d) All of the above

29. In the absence of Partnership Deed, the interest is allowed on the loan given by partners to the firm-

- (a) 9% p.a. (b) 8% p.a. (c) 6% p.a. (d) 5% p.a.

30. According to Profit & Loss A/c, the net profit for the year is ₹29,977. The total interest on the partners' capital is ₹3,250 and the interest on the drawing of the partner is ₹900. The net profit according to Profit and Loss Appropriation A/c will be :

- (a) ₹2,582 (b) ₹32,327 (c) ₹27,627 (d) ₹29,077

31. According to Profit & Loss A/c, the net profit for the year is ₹25,000. Interest on the loan of a partner is ₹800 and commission of the other partner is 1,000. The interest on the drawings of partners is ₹500. The net profit according to Profit & Loss Appropriation A/c will be

- (a) ₹25,700 (b) ₹23,700 (c) ₹26,300 (d) None of the these

32. X is a partner in a firm. He withdraws ₹200 per month as drawings from the firm on the 1st date of each month. The rate of interest on drawings is @ 10% p.a. and the books are closed on 31st March. In this case interest on drawings will be:

- (a) ₹120 (b) ₹130 (c) ₹240 (d) ₹60

33. In the above question no. 4, drawings are made at the end of each month, the amount of interest on drawings will be:

- (a) ₹110 (b) ₹120 (c) ₹60 (d) ₹240

34. In the above questions no. 4, drawings are made in the middle of each month, the amount of interest On drawings will be:

- (a) ₹240 (b) ₹110 (c) ₹120 (d) ₹130

35. Balance of Ram's Capital is ₹80,000 in the beginning of the year. He withdraws ₹20,000 from the firm in the middle of the year. He is entitled to get the interest on capital @ 10% p.a. In this case interest on his capital will be:
- (a) ₹8,000 (b) ₹4,000 (c) ₹7,000 (d) ₹6,000
36. According to Profit & Loss A/c, the net profit for the year is ₹30,000. The total interest on partners capital is ₹2,000 and the salary of a partner is ₹6,000. Total interest on partners' drawings is ₹1,300. The net profit according to Profit & Loss Appropriation A/c will be -
- (a) ₹23,200 (b) ₹24,800 (c) ₹36,800 (d) ₹32,800
37. According to Profit & Loss A/c, the net for the year is ₹ 4,000. Total interest on partners capitals is ₹3,600 and interest on a partners Loan is ₹2,000. Total interest on partners drawing is ₹ 300, the result of the Profit and Loss Appropriation A/c will be :
- (a) ₹5,300 profit (b) ₹2,700 profit (c) ₹1,300 loss (d) ₹2,100 profit
38. The partnership deed provided that interest on partners drawings will be charged @ 9% p.a. During the year ended March, 2018, a partner withdraws ₹ 5,000 in the beginning of each quarter. In this case the amount of interest on partners drawings will be-
- (a) ₹1,800 (b) ₹900 (c) ₹1,350 (d) ₹1,125
39. On 1st January, 2018 Ram's Capital was ₹1,00,000. On 1st July he brought ₹50,000 as his additional capital. If he is allowed interest on his capital @ 6% pa., what will be the interest on his capital at the end of the year-
- (a) ₹6,000 (b) ₹9,000 (c) ₹7,500 (d) ₹12,000
40. Ram and Rahim are partners in a firm. Their capital accounts showed the balance on April 1, 2018 as ₹2,00,000 and ₹1,50,000 respectively. On September 1, 2018 they introduced further capitals of ₹50,000 and ₹1,00,000 respectively. Rahim withdrew ₹40,000 from his capital on March 1, 2019. Interest is allowed @ 8% p.a. The interest on Rahim's Capital will be-
- (a) ₹16,400 (b) ₹17,000 (c) ₹19,000 (d) ₹18,500

ASSIGNMENT WORKSHEET – II

Note: Do all these questions in separate notebook

1. What is meant by Partnership?
 2. What do you understand by 'partners', 'firm' and 'firm's name'?
 3. What is the status of partnership from an accounting viewpoint?
 4. What is the minimum number of partners allowed in a firm?
 5. What is the maximum numbers of partners allowed in a firm?
 6. What is meant by partnership Deed?
 7. In the absence of a partnership deed, how are mutual relations of partners governed?
 8. Give any two reasons in favour of having a partnership deed?
 9. State the provisions of ' Indian Partnership Act 1932 relating to sharing of profits in the absence of any provision in the partnership deed?
 10. Give two circumstances in which the fixed capitals of partners may change.
- OR
- State the conditions under which the capital balances may change under the system of a Capital Account.
11. How would you calculate interest on drawings of equal amounts drawn on the 1st day of every month?
 12. How would you calculate interest on drawings of equal amounts drawn on the last day of every month.
 13. How would you calculate interest on drawings of equal amounts drawn in the middle of every month ?
 14. How would you calculate interest on drawings on unequal amounts drawn at unequal intervals?
 15. Alka, Barkha and Charu are partners in a firm having no partnership agreement. Alka, Barkha and Charu contributed Rs. 2,00,000, Rs. 3,00,000 and Rs. 1,00,000 respectively. Alka and Barkha desire that the profits should be divided in the ratio of capital contribution . Charu does not agree to this. How will you settle the dispute.
 16. List two items that may appear on the credit side of a Partner's fixed capital amount?
 17. List any four items which can be credited to the capital amount of a partner when the capital account is fluctuating.

18. A and B are partners in a firm without a partnership deed. A is active partner and claims a salary of Rs. 18,000 per month. State with reasons whether the claim is valid or not.
19. Suresh and Ramesh are partners in a firm with a capital of Rs. 3,00,000 and Rs. 4,00,000 res. They do not have Partnership Deed. Ramesh wants to share the profits in the ratio of capitals. State with reasons whether the claim is valid.
20. Ram and Mohan are partners in a firm without any partnership Deed. Their capitals are Ram Rs. 8,00,000 and Mohan Rs. 6,00,000. Ram is an active partner and looks after the business. Ram wants that profit should be shared in proportion of capital. State with reasons whether his claim is valid or not.
21. Pappu and Munna are partners in a firm sharing profits in the ratio 3 : 2. The partnership deed provided that Pappu was to be paid salary of Rs. 2,500 per month and Munna was to get a commission of Rs. 10,000 per year. Interest on capital was to be allowed @ 5% p.a and interest on drawings was to be charged @ 6% p.a interest on Pappu's drawings was Rs. 1,250 and on Munna's drawings Rs. 425 capital of the partners were Rs. 2,00,000 and Rs. 1,50,000 res., and were fixed. The firm earned a profit of Rs. 90,575 for the year ended 31st March, 2004. Prepare Profit and Loss Appropriation Account of the firm.
22. Ram and Manohar are partners in a firm sharing profits and losses in the ratio 7:3. According to the partnership deed, Ram was to be paid salary of Rs. 5,000 per month and Manohar was to get a bonus of Rs. 40,000 per annum. Interest on capital was to be allowed @ 10% p.a and interest on drawings was to be charged @ 8% p.a. Interest on Ram's drawings was Rs. 3,000 and on Manohar's drawings Rs. 2,000. Their fixed capitals were Rs. 4,00,000 and Rs. 1,50,000 resp. The firm earned a profit of Rs. 2,50,000 for the year ended 31st March, 2004. Prepare Profit and Loss Appropriation Account of Ram and Manohar.
23. A and B start business on July 1, 2004, B makes an additional contribution of Rs. 1,00,000 which is treated as a loan. The profit for the period ended March 2005 was Rs. 85,000 before charging any interest. All the partners were entitled to a salary of Rs. 3,000 each, per quarter. The partners had drawn Rs. 24,000 each on 1st January 2005. Prepare the profit and loss Appropriation Account for the period ended March 31, 2005.
24. Geeta and Meeta were partners in a firm sharing profit in the ratio 5: 3. Their fixed capital were Rs. 3,00,000 and Rs. 2,00,000 respectively. The partnership Deed provided that
- Interest on capitals should be allowed @ 12%.
 - Geeta should be allowed a salary of Rs. 40,000.
 - A commission of 5% of the net profit should be allowed to Meeta.
 - The net profit for the year ended 31.3.2001 was Rs. 2,00,000.
- Prepare Profit and Loss Appropriation Account.
25. Malti, Paro and Arti are partners in a firm having fixed capitals of Rs. 80,000, Rs. 40,000 and Rs. 50,000 respectively sharing profits as 7: 6: 4. The rate of interest on capital was agreed at 10% p.a but was wrongly credited to them as 12% p.a. Give the necessary adjustment entry to adjust the balances of Partners Capital Accounts.
26. On March 31, 2005 after the close of books of accounts, the capital accounts of A, B and C stood at Rs. 24,000, Rs. 20,000 respectively. The profit for the year Rs. 36,000 was distributed. Subsequently, it was discovered that interest on Capital 5% p.a had been omitted. The profit sharing ratio was 2:2:1 pass and adjustment Journal.
27. Ram and Shyam were partners in a firm sharing profits in the ratio of 3:5 their Fixed capitals were Ram Rs. 5,00,000 and Shyam Rs. 9,00,000. After the accounts of the year had been closed, it was found that interest on capital at 10% p.a as provided in the partnership agreement has not been credited to the Capital Accounts of the partners. Pass a necessary entry to rectify the error.
28. Jain and Gupta were partners in a firm sharing profits in 3:2 ratio. Their fixed capitals were Jain Rs. 1,00,000 and Gupta Rs. 1,50,000. After the accounts of the year had been closed it was discovered that interest on capital at 10% p.a as provided in the partnership agreement has not been credited to the capital accounts of the partners before distribution of Profits. Pass the necessary Journal Entry to rectify the error.
29. A, B and C are partners in a firm on 01.04.2005 their capitals stood at Rs. 50,000, Rs. 25,000 and Rs. 25,000 respectively. As per the provisions of the partnership deed
- C was entitled for a salary of Rs. 5,000 per month.
 - Partners were entitled to Interest on capital at 5% p.a.
 - Profits were to be shared in the ratio of Partners Capital.
 - The net profit for the year 2005-06 of Rs. 33,000 was distributed equally with providing for the above terms.

v) Pass an adjustment entry in Journal to rectify the above error.

30. Ravi and Mohan were partners in a firm sharing profits in the ratio 7:5. Their respective fixed capitals were Ravi Rs. 10,00,000 and Mohan Rs. 7,00,000.

The partnership deed provided for the following :

i) Interest on capital @ 12% p.a.

ii) Ravi's Salary Rs. 6,000 per month and Mohan's Salary Rs. 60,000 per year. The profit for the year ended 31.3.2007 was Rs. 5,04,000 which was distributed equally, without providing for the above.

Pass an adjustment entry.

31. Kumar and Raja were partners in a firm sharing profits in the ratio of 7:3. Their fixed capitals were Kumar Rs. 9,00,000 and Raja Rs. 4,00,000. The partnership deed provided the following but the profit for the year was distributed without providing for:

i) Interest on Capital @ 9% p.a.

ii) Kumar's Salary Rs. 50,000 per year and Raja's Salary Rs. 3,000 per month. The profit for the year ended 31.3.2007 was Rs. 2,78,000. Pass the adjustment entry.

32. A, B and C are partners in a firm sharing profits in the ratio of 2:2:1. C is guaranteed a minimum amount of Rs. 10,000 as his share of profit every year. Deficiency, if any on that account shall be borne by B. The profits for the two years ended 31st March 2003 and 31st March 2004 were Rs. 50,000 and Rs. 60,000 respectively. Prepare Profit and Loss appropriation account for two years.

33. The partners of a firm distributed the profits for the year ended 31st March 2003 Rs. 90,000 in the ratio of 3:2:1 without providing for the following adjustment.

i) A and C were entitled to a salary of Rs. 1,500 per month.

ii) B was entitled to a commission of Rs. 4,500

iii) B and C had guaranteed a minimum profit of Rs. 35,000 per annum to A. Profits were to be shared in the ratio of 3:3:2

Pass the necessary Journal entry for the above adjustment in the books for the firm. A, B and C were partners in a firm sharing profits in the ratio of 2 : 2 : 1. C guaranteed to be given a profit of Rs. 50,000 per year. Deficiency, if any on that account shall be borne by A and B in the ratio of 3:2. The net Profit of the firm for the year ended 31st March, 2004 was Rs. 2,00,000.

Prepare Profit and Loss Appropriation Account A, B and C.

34. A, B and C entered into a partnership on October 1, 2004 to share profits and losses in the ratio of 3:2:1. However personally guaranteed that C's share of profit after charging interest on Capitals @ 5% p.a. would not be less than Rs. 30,000 in any year. The capital contribution were A Rs. 3 lakh, B Rs. 2 lakhs and C Rs. 1 lakh. The profits for the period ended March 31, 2005 were Rs. 1,20,000. Show the distribution of profits.

35. A, B and C were partners in a firm sharing profits in 2:3:5 ratio. A was guaranteed a minimum profit of Rs. 1,00,000. Any deficiency on this account was to be borne by C. The net profit of the firm for the year ended 31st March, 2006 was Rs. 4,50,000. Prepare Profit and Loss Appropriation Account of A, B and C for the year ended 31st March, 2006

36. Ajit and Baljit were sharing profit in the ratio of 3:Chaman into the partnership for 1/6th share of the future profits. Goodwill Valued at 4 times the average super profits of the firm was Rs. 18,000. The firm had assets worth Rs. 15 lakhs and liabilities Rs. 12 lakhs. The normal earning capacity of such firms is expected to be 10% p.a. find the Average Profits/Actual Profits earned by the firm during the last 4 years.

37. X, Y and Z were sharing profits and losses in the ratio 5:3:2. They decided to share future profits and losses in the ratio of 2:3:5 with effect from 1st April 2007. They decided to record the effect of the following without affecting their book values:

i) Profit and loss account Rs. 24,000

ii) Advertisement Suspense Account Rs. 12,000.

Pass the necessary adjusting entry.

38. Suman and Poonam were partners in a firm sharing profits in 3:2 ratio. From 1st March 2006 they decided to change it to 3:1. For the purpose the goodwill of the firm was valued at Rs. 1,20,000

39. A, B and C were partners in a firm sharing profits in the ratio of 5:3:2. On 1st January, 2005 they decided to share the profits equally. It was also agreed that the change carried out retrospectively for the last 4 years.

The profits for the last 5 years were as follow.

Year	Ended Profit (Rs.)
2000	50,000
2001	40,000
2002	10,000(loss)
2003	60,000
2004	1,00,000

Pass the necessary adjustment entry

40. A and B were partners in the ratio of 3: 2. They admit C for $\frac{1}{4}$ th share in the profits of the firm. It was decided that C will bring Rs. 97,200 as goodwill and Rs. 3,16,000 as capital. Pass necessary journal entries and also find out the new profit-sharing ratio under both the cases:

(i) When the goodwill is retained in the firm.

(ii) When goodwill is withdrawn by old partners.

41. A and B were partners in the ratio of 3:2. C was admitted for $\frac{3}{7}$ th profits which he takes $\frac{2}{7}$ th from A $\frac{1}{7}$ th from B. The total goodwill of the firm was Rs. 25,480. C brings 36,400 as his share of capital and also brings his share of goodwill in cash. Pass necessary Journal entries also find out the new profit sharing ratio.

42. Leela and Meena were partners in the ratio of 3 : 2. Nupur was admitted for $\frac{1}{4}$ th share which she acquires $\frac{2}{3}$ rd from Leela from $\frac{1}{3}$ rd from Meena. Rs48,750 was brought as capital and Rs. 19,500 for goodwill. 25% of the goodwill was withdrawn by Leela and Meena.

Pass necessary journal entries and also find out the new profit sharing ratio.

43. Sonu and Monu were partners in the ratio of 5 : 3. They admit Ramik for $\frac{1}{4}$ th share which he will acquire equally from Sonu and Monu. Ramik brings Rs. 64,000 as goodwill and Rs. 2,88,000 as Capital.

Pass necessary journal entries and also find out the new profit sharing ratio.

44. (a) A and B are partners in a firm sharing profits in the ratio of 3 : 2. C is admitted as a partner A and B surrender $\frac{1}{2}$ of their respective share in favour of C. Find the new profit sharing ratio and also the sacrificing ratio.

(b) C is to bring his share of premium for goodwill in cash. The goodwill of the firm is estimated at Rs. 56,000. Pass necessary entries for the record of goodwill in the above case.

45. P, Q and R were partners in the ratio of 4 : 3 : 2. O was admitted for $\frac{2}{9}$ th shares. He brings Rs 58,500 as capital and Rs 26,000 as his share of Goodwill. The new profit sharing ratio was 3 : 2 : 2 : 2 respectively. Pass necessary journal entries and also find out the sacrificing ratio.

46. Aarti and Deepti were partners in the ratio of 2 : 1. Shalini and Mohini were admitted. After the admission of Shalini and Mohini their ratio becomes as 4 : 2 : 3 : 1. Goodwill of the firm was Rs. 91,000. Mohini brings her share of goodwill and Rs. 26,000 as capital. Shalini brings Rs. 22,750 cash and Rs.

18,200 with stock as her capital. She also brings her required amount of goodwill.

Pass necessary journal entries.

47. A and B were partners in the ratio of 3 : 2. They admit C for $\frac{3}{13}$ share. New profit ratio after C's admission will be 5 : 5 : 3. C brought some assets in the form of his capital and for the share of his goodwill.

Following were the assets :

Assets	Rs.
Stock	3,17,200
Building	3,12,000
Plant and Machinery	1,82,000

At the time of admission of C goodwill of the firm was valued at Rs. 16,22,400. Pass the necessary journal entries. Also prepare C's Capital Account.

48. A and B were partners in a firm sharing profits in the ratio of 3 : 1. On 1-3-2006, they admitted C as a new partner for $\frac{1}{4}$ th share in the profits. The new profit sharing ratio will be 2 : 1 : 1. C brought in Rs. 1,25,000 as his capital and Rs. 31,250 for his share of goodwill (Premium) in cash. On C's admission goodwill account appeared in the books of the firm at Rs. 18,750. Pass necessary Journal entries in the books of the firm on C's admission.
49. Raju and Suresh were partners in the ratio of 4 : 1. They admit Ram for $\frac{1}{6}$ th share. Ram brings Rs. 2,70,000 as his share of goodwill. New ratio of Raju, Suresh and Ram was 3 : 2 : 1. respectively. Pass necessary journal entries.
50. L and M were partners in a firm sharing profits in the ratio of 3 : 1. They admitted N as a new partner on 1-3-2006 for $\frac{1}{3}$ rd share. It was decided that L, M and N will share future profits equally. N brought Rs. 70,000 in cash and machinery worth Rs. 98,000 for his share of profits as premium for goodwill. Showing your calculations clearly pass necessary journal entries in the books of the firm.
51. X and Y were partners in the ratio of 4 : 1. C was admitted for $\frac{1}{3}$ rd share. He brings Rs. 30,000 as his share of goodwill. Future profit of X and Y will be decided equally Journalise these transactions. Also find out the new profit sharing ratio.
52. Pooja and Rachita were partners with capitals of Rs. 50,000 and 75,000 respectively. Their profit sharing ratio was 4 : 3. Kavita was admitted. The new ratio was decided as 3 : 2 : 2 respectively. Kavita brings Rs. 15,000 as his share of Premium. Pass necessary journal entries if Capital Accounts of the partners are fixed. Also find out the sacrificing ratio.
53. A and B were partners in the ratio of 7 : 5. C was admitted for $\frac{1}{6}$ th share. The new ratio was decided as 13 : 7 : 4 respectively. C brings Rs. 6,00,000 as his share of capital but was not able to bring any cash for his share of goodwill/premium. The firm's goodwill at the time of C's admission was valued at Rs. 5,76,000.
54. Mona and Lata were partners in the ratio of 3 : 2. Reema was admitted as a new partner and it was decided that they will share future profits and losses equally. Reema brings Rs 90,000 as her capital and goodwill of the firm at the time of admission was Rs. 108000. Pass necessary journal entries and also find out the sacrificing ratio under the following cases:
- When goodwill appears in the books Rs. 90,000.
 - When goodwill appears in the books Rs. 1,80,000.
 - When no goodwill appears in the books.
55. A and B are partners in a firm sharing profits in the ratio of 5 : 3. On 1st April, 2006 They admitted C as a new partner. The new profit-sharing ratio will be 4 : 3 : 2. C brought in Rs. 1,40,000 in cash as his share of capital but could not bring any amount for goodwill in cash. The firm's goodwill on C's admission was valued at Rs 2.52,000. At the time of C's admission goodwill existed in the books of the firm at Rs 3,36,000. Pass necessary journal entries in the books of the firm on C's admission. Show your working clearly.
56. P and Q were partners in the ratio of 3 : 2. R was admitted for $\frac{1}{4}$ th share. Goodwill already appears in the books of accounts Rs. 52,000. Pass necessary journal entries in the following cases :
- R was not able to bring any share of goodwill i.e. Rs 41,600.
 - R brings his share of goodwill in cash i.e. 41,600.
57. Ram and Shyam were partners sharing profits equally. They admit Mohan into partnership. Mohan paying only Rs 4,000 for premium out of his share of premium of Rs. 7,200 for $\frac{1}{4}$ th share of profits. Goodwill account appears in the books at Rs 24,000. All the partners have decided that goodwill should not appear in the new firm's books. Give necessary journal entries.
58. A and B were partners in the ratio of 5 : 3. C was admitted for $\frac{1}{5}$ th share which he will acquire $\frac{1}{6}$ th from A and $\frac{1}{30}$ th from B. C brings Rs. 22,500 as his share of goodwill out of his share of Rs. 40,500. No goodwill account appears in the books of the firm. Pass necessary journal entries and also find out the new profit-sharing ratio.
59. Amita and Babita were partners in the ratio of 3 : 1. Charu was admitted for $\frac{1}{3}$ rd share. Charu's share of goodwill/premium was Rs. 30,000 which she was not able to bring it in cash. It was decided that new profit sharing ratio will be equal in future. Pass necessary journal entries.
60. Sonu and Monu were partners in the ratio of 3 : 2. Chirag was admitted for $\frac{1}{5}$ th shar. Chirag acquires his share from Sonu and Monu in the ratio of 2 : 3. At the time of admission Goodwill was valued at Rs. 195,000. Chirag brings Rs. 7,50,000 as capital but was not able to bring any cash for goodwill. Pass necessary journal entries if capitals are fixed under the following cases:
- No goodwill appears in the books.
 - Goodwill appears in the books at Rs. 97,500.

61. A and B were Spartners with capital of Rs. 29,250 and Rs. 20,250 respectively. They admit C for $\frac{1}{5}$ th share. Rs. 18,000 were brought by C as his share of capital . Pass necessary Journal entries.

62.Asha and Vibha were partners in a firm in the ratio of 4 : 1. On 1st September 2007, they admit Radha as a new partner for $\frac{1}{5}$ th share. At the date of admission of Radha, there was a balance of Rs 2,40,000 in general reserve and a debit balance of Rs. 1,20,000 in the profit and loss account of the firm. Pass necessary journal entries for the adjustment of accumulated profit or loss.

Information Technology

Assignment

- The number of attribute in a relation is called
 - Tuple
 - table
 - cardinality
 - degree
- Define
 - candidate key
 - primary key
 - relation schema
- Explain any two advantage of Dbms.
- Difference between primary and foreign key
- What is DBMS? Name the four types of users of DBMS
- Write the command to create a table emolpyee id(integer- primary key), Name (20 character) , department (20 character), gender(1 character), salary(integer), atleast five identity
- Table : Book

Book id	Book name	Author name	publisher	Price
C0001	FAST COOK	Lata Kapoor	EPB	355
F0001	THE TEARS	William Hopkins	FIRST PUBLISHER	650
T0001	DATABASE	Jim warren	FPB	350
T0002	BRAIN WORKS	a.w rossaine	TDH	350

Write commands based on the above table:

- To show book name, author name and price of books of publisher EPB.
 - To display the details of all books where price is in the image 300 to 700.
 - To increase the price of all books of first publishser by 5.
 - To insert a new record in the table having the following data 'F0002', 'thunderbolts', 'anna roberts', 'EPB', 750.
 - To add a new column called quantity whose data type is integer.
- Write the command to create another table student with stuid(integer – primary key), stu name(20 character), stu address(50 character), stumobile no.(10 integer)
 - Write the syntax for the following command with example
 - Insert
 - create table
 - modify
 - alter table
 - What is RDBMS? Explain the relational schema.

Physics

Do competitive questions of electrostatic from book (errorless physics universal)
And work on projects assigned according to your roll numbers