

PATTAMUNDAI COLLEGE, PATTAMUNDAI

DEPARTMENT OF COMMERCE

+3 2ND YEAR 3RD SEMESTER

CORPORATE ACCOUNTING CORE-5

Section I

1. Share application account is a _____ Account.
2. Dividend declared between two annual general meetings is known as _____
3. Reduction of capital is unlawful except when _____
4. Pre-acquisition Profits are treated as _____ Profits.
5. The minimum Share Application money is _____.
6. Accounting for Amalgamation is done as per Accounting Standard _____.
7. Consolidated Financial Statements are prepared as per Accounting Standard _____.
8. The portion of the authorized capital which can be called up only on the liquidation of the company is called _____-.
9. A debenture holder is the _____ of a company.
10. Section 2(87) of the Companies Act, 2013 denotes a _____.
11. Public Ltd. Companies cannot issue _____ shares.
12. Preference Shares can be redeemed if they are _____.
13. In case of holding company shares held by outsiders are known as _____.
14. Internal reconstruction means _____ of a company which is to be reconstructed.
15. If shares are forfeited, share capital account is debited with the amount of _____ value of shares.
16. Reserve capital is a part of _____ capital.
17. A company can declare and distribute dividend even if it's Memorandum and Articles are _____.
18. Reduction of share capital is _____ except when sanctioned by the court.
19. Profits of the subsidiary company made after the date of the purchase of shares by the holding company is treated as _____.
20. Assets of the company cannot be mortgaged in favour of _____.

21. Companies have a statutory obligation to prepare Final Accounts as required by Section _____ of the Companies Act, 2013.
22. A wholly owned subsidiary company is one in which all the shares with voting rights of _____ are owned by the holding company.
23. Capital Redemption Reserve is used for _____
24. Call-in-arrear is shown By deducting from the _____ capital
25. Internal reconstruction means _____.
26. The maximum allowable discount on Equity shares is _____
27. As per the SEBI's guidelines the minimum application money shall not be less than _____
28. Redeemable Preference shares can be redeemed out of _____
29. Partly paid preference shares cannot be _____.
30. If preference shares are redeemed out of distributable profits and amount equal to the face value of shares redeemed is transferred to _____
31. A debenture issued at a discount can be redeemed at a _____
32. Perpetual debentures are also known as _____ debentures.
33. Debenture premium cannot be used to _____.
34. Loss on issue of debentures is treated as _____.
35. When debentures are issued as collateral security, the journal entry for recording the transaction in the books is _____.
36. Discount on issue of debentures is a _____.
37. Premium on redemption of debentures account is _____.
38. At The Time Of Liquidation Of Company, The Liquidator Has To File A Statement of Receipt And Payment Is Known As _____.
39. A public company can be wound up by the court if the number of members is reduced below _____.
40. the company has to submit the statement of affairs to the official liquidator within _____ days
41. A company can be liquidated by _____.
42. Preference dividend is to be paid before _____.
43. A Liquidator can claim the _____
44. In liquidator final statement if account, payment of preferential creditors is shown after _____
45. Surplus Of Amount In Statement Of Affairs Should Be Distributed To _____
46. Rebate on bills discounted is _____

47. Consolidated Financial Statements are prepared as per Accounting Standard_____
48. Investment in Subsidiary Company should be accounted for in accordance with_____
49. Interest on calls in arrear should not exceed_____
50. As per Income tax Act, Preliminary Expenses may be written of ____ year.

Section II

1. What is Joint Stock Company?
2. What is statutory company?
3. What do you mean by unlimited company?
4. What is registered company?
5. What is sweat equity share?
6. What do you mean by minimum subscription?
7. What is meant by forfeiture of shares?
8. What is oversubscription of shares?
9. What are right shares?
- 10.State various purposes for which amount of security premium may be utilized.
- 11.What is debenture?
- 12.White short note on issue of debenture as collateral security
- 13.White note on writing of discount or loss on issue of debentures
- 14.White note on Lump sum method
- 15.White note on Installment method
- 16.Explain the meaning of underwriting.
- 17.What is partial underwriting?
- 18.What do you mean by excess of applications?
- 19.What is underwriting account?
- 20.What is meant by redemption of preference shares?
- 21.Write a short not on capital redemption reserve.
- 22.What is capitalization of profits?
- 23.What is ploughing back of profit?
- 24.What are bonus share?
- 25.What is reinvestment of profits?
- 26.What do you mean by redemption of debentures?
- 27.What is debenture redemption reserve?
- 28.What is sinking fund or debenture redemption fund?

29. What are convertible debentures?
30. What are the various sources of finance for the purpose of redemption of debentures?
31. Write Notes On Share Capital
32. Write notes on fixed assets
33. Write notes on reserve and provision
34. Write notes on unclaimed dividends
35. Write notes on contingent liability
36. Define goodwill.
37. What are the factors affecting valuation of goodwill?
38. What are super profits?
39. What are average profits?
40. How capital employed is calculated while calculating goodwill?
41. What are the methods of valuing the shares of the company?
42. Explain the demerits of the net asset method.
43. Explain the circumstances in which dividend yield method is suitable for the valuation of shares.
44. Explain the disadvantages of the dividend yield method.
45. How the “estimated future earnings” is calculated for the valuation of shares?
46. What do you mean by liquidation?
47. Write a short note on solvency of a company.
48. Write a short note on voluntary winding up of a company.
49. Who are preferential creditors?
50. What do you mean by statement of affairs?

Section III

1. What is holding company and subsidiary company?
2. What is the difference between public company and private company?
3. What are cumulative and non-cumulative preference shares?
4. What are participating and non-participating preference shares?
5. Write a short note on underwriting shares.
6. Distinguish between reserve capital and capital reserve.
7. Distinguish between equity share and preference share
8. Write a note on under subscription and over subscription.
9. What do you mean by right issue of share?
10. Write a short note on issue of shares at discounts.
11. Distinguish between shareholders and debenture holders.

12. Discuss the treatment of interest on debentures.
13. Explain issue of debentures at par.
14. Explain issue of debentures at discount.
15. Explain issue of debentures at premium.
16. What is partial underwriting?
17. What is sub underwriting?
18. What is firm underwriting?
19. What is underwriting contract?
20. What is underwriting commission?
21. What are the various circumstances for issue of bonus shares?
22. What are the various sources for bonus shares?
23. List out various profits available for dividend.
24. List out profit not available for dividend.
25. What is buy back of share?
26. Write short note on EX interest and Cum interest
27. Write short note on conversion of debentures
28. Write short note on purchase of own debentures
29. Write short note on sinking fund
30. Write short note on sinking fund investment.
31. Write short note on divisible profits.
32. Explain corporate dividend tax
33. Write short note on unclaimed dividend.
34. What are contingent liabilities?
35. Explain manufacturing account.
36. What is the difference between purchased and non-purchased goodwill?
37. What is the logic behind “number of years purchased in valuation of goodwill”?
38. What is weighted average profit method?
39. What are the precautions while calculating actual average profit/
40. Which one method is considered as best for valuation of goodwill?
41. Why the valuation of shares is needed?
42. Write the factors by which valuation of shares is influenced?
43. What are the methods of valuing the shares of the company?
44. Explain the demerits of the net asset method.
45. Explain the circumstances in which net assets method of valuing share is suitable.
46. Who are preferential creditors?

47. What do you mean by statement of affairs?
48. Write short note on deficiency/surplus account?
49. What do you mean by winding up by tribunal?
50. What is meant by “B” list of contributories?

Section IV

1. Define company. Explain its various types.
2. Explain the SEBI guidelines for public issue.
3. Explain the provision of section 79 regarding the issue of shares at discount?
4. What do you mean by preference shares? Explain its various types.
5. What is the meaning of debenture? Explain the different types of debentures?
6. Explain the meaning of debentures issued on collateral security/ who its treatment in the balance sheet?
7. What do you mean by underwriting? Pass the necessary journal entries in the books of company and the underwriter for the treatment of underwriting agreement.
8. What do you mean by firm underwriting? Explain the provisions of companies act in relation to the underwriting.
9. Explain clearly the legal requirements for the redemption of preference shares as laid down in the section 55 of the companies act, 2013. Give the journal entries that are made in this connection.
10. Show the accounting treatment of the issue of shares.
11. What are the various methods for the redemption of debentures? Describe their features and their effects on the accounts of the company?
12. How are debentures paid? What is sinking fund? How and why the sinking fund A/c is prepared?
13. Prepare in a summarized form the balance sheet of the company as per companies Act 2013, taking imaginary figures.
14. What is profit and loss appropriation account? How does it differ from profit and loss account? Prepare a profit and loss appropriation account with the imaginary figures.
15. Under what circumstances the valuation of goodwill is required/ explains various methods of goodwill. Which method would you suggest when profits are stagnating, increasing, or decreasing year after year?
16. What do you mean by goodwill valuation? Discuss the methods which are used for goodwill valuation? Which method is the best in your opinion?

17. Why is valuation of shares important/ how the same is computed? Discuss.
18. Explain the need for valuation of shares/ also explain the factors that influence the value of the share.
19. What do you mean by liquidation of the company? Explain the various methods of the liquidation of the company.
20. What is statement of affairs/ why is it prepared? Give a specimen form of this statement and explain.

INCOME TAX LAW AND PRACTICE (CORE-6)

Section –I

- 1) Income Tax Act was passed in the year.....
- 2) Income Tax Act came into force on.....
- 3) Income tax is a.....
- 4) Income tax rates are fixed in.....
- 5) There are heads of income
- 6) A person with the age of or more is considered as a super senior citizen as per Income tax Act.
- 7) The minimum exceptional limit of income is.....
- 8) Rebate of Income tax is defined as per section
- 9) Section 2(9) of Income tax deals with.....
- 10) Assessment year is the period of 12 months commencing from Every year.
- 11) When the income earned in an year is taxed in the same year, it is called
- 12) Surcharge is levied when the total income exceeds
- 13) Educational cess is charges at the rate of
- 14) As per Income tax Act, Person includes
- 15) CBDT stands for
- 16) CBDT is control by
- 17) To be an Ordinarily resident in India, an individual must satisfy
- 18) A Company has types of residential status.
- 19) _____ is assessee in case of a HUF?
- 20) Dividend from an Indian Company is

- 21) Expenditure incurred on exempted income is as deduction
- 22) Income exempted from tax are stated in the section..... Of Income Tax Act.
- 23) Income from Salary is explained in the section
- 24) When an URPF is recognized, the balance so transferred is called
- 25) Gratuity is defined as per section
- 26) The highest Administrative Authority for Income Tax in India is.....
- 27) HRA is
- 28) If the assessee is living in own house HRA is
- 29) Entertainment allowance is allowed as a deduction as per section
- 30) Transport allowance given by the employer to the employee is exempt up to
- 31) The assesses can claim relief under for arrears or advance salary.
- 32) Deduction from gross Total income is allowed under Sec. 80C up to lower of the Qualifying amount or a maximum ,, of.
- 33) Profits earned from an illegal business are.....
- 34) Business can be defined as per section
- 35) Payment made in cash exceeding is disallowed.
- 36) Under the Income Tax Act,1961, depreciation on machinery is charged on
- 37) Circulars and Notifications are binding on the _____
- 38) The salary, remuneration or compensation received by the partners is taxable under the head
- 39) The death-cum-retirement gratuity received by the Government Employee or employee of local authority is
- 40) Rent Free Accommodation given to an employee by the employer is a
- 41) Payment of Gratuity Act came into force in
- 42) is the rent fixed under Rent control Act.
- 43) Educational cess is leviable in case of
- 44) Income tax is a
- 45) Dividend from an Indian Company is
- 46) Expenditure incurred on exempted income is as deduction

- 47) Incomes exempted from tax are stated in the section..... Of Income Tax Act.
- 48) Income from Salary is explained in the section
- 49) When an URPF is recognized, the balance so transferred is called
- 50) Gratuity is defined as per section

Section –II

1. What do you mean by direct tax?
2. Assessment year
3. Previous year
4. Assessed
5. Person
6. Income
7. Agricultural income
8. Non-agricultural income
9. Gross total income
10. Total income
11. Maximum marginal rate of tax
12. Permanent account number
13. Scope of total income
14. What is the residential status enjoyed by a HUF?
15. Exempted income
16. What is salary
17. What is allowance
18. What is perk
19. Define salary based on gratuity.
20. What do you mean by salary for calculating RFA?
21. What is salary for the purpose of calculating HRA?
22. Who is a specified employee?
23. What is fair rental value?
24. State the four cases when property income is not charged to tax.
25. What do you mean by standard rent?
26. What do you mean by composite rent?

27. What is unrealised rent?
28. How do you determine pre-construction period while calculating interest on borrowed capital?
29. Define business
30. What do you mean by profession?
31. What are deemed business profit?
32. What is speculative business?
33. What do you mean by short term capital asset?
34. What do you mean by long term capital asset?
35. What do you mean by block of assets?
36. What do you mean by transfer of capital assets?
37. What do you mean by cost of acquisition?
38. Mention any two assets which does not come under the term capital asset.
39. What is casual income?
40. What is the rate of TDS for casual incomes?
41. What do you mean by set-off and carry forward of losses?
42. Mention any two losses which cannot be set-off against income under other head.
43. What is total income?
44. What do you mean by gross total income?
45. What do you mean by casual income?
46. What is tax relief?
47. What is rebate under sec.87A?
48. What is partnership?
49. What is firm?
50. How AMT calculated?
51. How is TDS deducted?
52. Who shall deduct tax at source?
53. When TDS is not deducted?
54. What is TDS certificate?
55. What is payment of advance tax?
56. Define appeals.
57. Unabsorbed depreciation.

Section - III

1. What Is The Difference Between Gross Total Income And Total Income?
2. What Is Gross Total Income?

3. Can A Partnership Firm Or HUF Claim Rebate Under Section 87a?
4. Can I Claim Deduction For My Personal And Household Expenditure While Calculating My Taxable Income Or Profit?
5. What Is Rebate Under Section 87a And Who Can Claim It?
6. How to Round Off the Tax Liability?
7. What Is Marginal Relief And How It Is Computed?
8. How to Compute the Total Tax Liability?
9. How to Round Off Total Income before Computing Tax Liability?
10. Can A Non-resident Claim Rebate Under Section 87a?
11. Under How Many Heads The Income Of A Taxpayer Is Classified?
12. Is There Any Limit Of Income Below Which I Need Not Pay Tax?
13. What Is Surcharge And How It Is Computed?
14. What Is Income Tax? How Is It Calculated?
15. Define Assessment Year?
16. Define Previous Year?
17. Define Financial Year?
18. Differentiate Between Financial Year, Assessment Year And Previous Year?
19. Define The Term Person?
20. Who Is An Assessee?
21. What Do You Understand By Total Income?
22. How Many Heads Are There Under Total Income? Name Them?
23. At What Rate Firms Are Required To Pay Tax On Their Income?
24. How Will You Decide The Residential Status Of An Individual?
25. Does The Tax Liability Of An Individual Get Affected Due To His Residential Status? If Yes, Explain.
26. What Are The Basic And Additional Conditions For Resident And Ordinarily Resident (ROR)?
27. Who Are Resident But Not Ordinary Resident?
28. Who Are Non Resident?
29. Which Income Is Considered As Accrued Income?
30. What Is FBT?
31. What Is Tax Audit?
32. What Is Tax Refund?
33. What Is Capital Gain? Explain Long Term Capital Gains And How Is It Different From Short Term Capital Gains?
34. What Is Deferred Tax?

35. What Is Alternative Minimum Tax (AMT)?
36. What Is The Securities Transaction Tax?
37. What Is Permanent Account Number (PAN)?
38. What Is The Difference Between Profit And Gain?
39. Explain The Procedure To Calculate Provident Fund.
40. What Are The Deductions Under Salary Head? Name The Items.
41. What Is Entertainment Tax?
42. What Are The Types Of Provident Funds?
43. How Will You Calculate House Rent Allowance (HRA)?
44. What Is Tax Deducted At Source?
45. What To Do If The TDS Credit Is Not Reflected In Form 26as?
46. I Do Not Have Pan. Can I Furnish Form 15g/15h For Non-deduction Of TDS From Interest?
47. What Is The Difference Between Pan And Tan?
48. What Is The Meaning Of Capital Asset?
49. What Is the Meaning of the Term 'long-term Capital Asset'?
50. What Is Long-term Capital Gain And Short-term Capital Gain?

Section-IV

1. Explain the residential status of a person.
2. Explain the scope of total income based on residential status. State the tax liability of an individual on the basis of residential status.
3. Explain at least 10 exempted income which is exempted from tax.
4. Explain the different kinds of provident fund.
5. What are perquisites? Explain the different types of perquisites.
6. What is allowance? Explain the different types of allowances.
7. Distinguish between RPF and URPF.
8. Explain gross annual value of let out properties.
9. What is unrealised rent enumerate the rules for unrealised rent?
10. What are the deductions allowed from annual value of house property while computing the income from house property?
11. What are the charging provisions u/s 28 under the head "Profit and Gain of Business or Profession"?

12. Explain in brief the provisions relating to claim of expenses on scientific research?
13. What do you mean by the term depreciation? What are the rules regarding the claim of deduction of depreciation?
14. Define the term "Capital Gain". Discuss the procedure for computation of capital gains as prescribed by the Income Tax Act 1961.
15. What is the meaning of term, 'cost of acquisition' as used in the head 'capital gain'? what rules are given for the determination of cost of acquisition?
16. Define the term 'Dividend' as given in section 2(22) of income- tax Act 1961. How is the dividend income put to tax under the provisions of this Act?
17. Enumerate the items of deductions allowable in computing income from other sources.
18. Explain the provisions of income tax act 1961 regarding carry forward and setoff of losses.
19. What are the provisions relating to deductions from Gross total income of donations to certain funds charitable institutions etc. under section 80G of the income tax Act ,1961?
20. Explain briefly the deduction u/s 80C.
21. What is the procedure for claim of rebate u/s 87?
22. How a person can claim relief u/s 89(1)
23. What are the modes and process of E-filing?
24. State briefly the law relating to deduction of tax at source.
25. Explain in brief the provision of income tax law relating to 'Advance Payment of Tax'.

CORE-07

---- MANAGEMENT PRINCIPLES AND APPLICATION ----

A. Fill in the blanks with appropriate words

1. Management is the _____ process.
2. Terry perceives management is a systematic way of _____ things.
3. Management = Manage+ _____ + tactfully.
4. Management is concerned with _____ things and people.
5. Management theories can be classified in four main schools of thought pre-scientific theory, classical theory, behavioural theory, _____ theory.
6. Organisations are _____ systems.
7. Re-engineering improves the quality and lowers the cost given by _____.
8. Planning makes decisions regarding why, what, how, when, who, _____.
9. Policies means a general guideline to _____.
10. Procedure provides sequential order to _____.
11. Rules are statements that a specific action must or must not be taken in a given _____.
12. In SWOT analysis 'T' stands for _____.
13. Decisions making means selecting a course of action to solve a _____.
14. DSS (Decisions support _____).
15. Organisation charts are broadly of three types i.e vertical , horizontal & _____.
16. Responsibility is the _____ entrusted to subordinates.
17. An employee's motivation is a direct result of the sum of interaction with his _____.
18. Leadership is at the centre of _____.
19. Communication is the transfer of information from a sender to a _____.
20. NOPAT- Net operating profit after _____.
21. BCG stands for _____.
22. In TOWS matrix 'o' stands for _____.
23. Five forces described by _____.
24. Need hierarchy is described by _____.
25. Policies are general _____.
26. Budgets are in the form of _____.
27. Threats refers to the _____ changes.
28. Diagnosis is to prepare a _____.
29. To make decision is _____.
30. The nominal group technique is used in _____.
31. Administration is generally _____ process.
32. Management minus Decision making is _____.

33. MIS -Management Information _____.
34. In the work situation to meet personal needs is _____ organisation.
35. In traditional concept the ideal number of subordinates is _____.
36. Power to take decision is _____.
37. The assigned job is _____.
38. Authority can be delegated in _____.
39. _____ means to increase the existing volume of the business.
40. _____ means to adopt latest techniques in the business.
41. _____ means to deal in the business of many product instead of a single product.
42. _____ refers to provide more autonomy and powers to employees.
43. Maslows need hierarchy theory is a _____ theory.
44. Persons who have the ability to influence others can be called _____.
45. Leaders are born too and also can be _____.
46. Communication is the process of passing _____.
47. _____ is the hinderance in the process of communication.
48. Use of ambiguous symbols in _____.
49. The communication within an organisation i.e officially sanctioned is _____ communication.
50. The communication by the top hierarchy with their subordinates is called _____ communication.

B. Very short answer with one or two sentences.

1. Management
2. Administration
3. Profession
4. Unity of command
5. MBO
6. Planning
7. Strategy
8. SWOT
9. Write the conditions of decision making.
10. Organising
11. Span of management
12. Delegation
13. Authority
14. Responsibility

15. Centralisation
16. Staffing
17. Recruitment
18. Motivation
19. Leadership
20. Communication
21. Controlling
22. Policies
23. Mission
24. Mental Revolution
25. Scientific management
26. Motion study
27. Method study
28. Time study
29. Fatigue study
30. BPR
31. Tier-4 market
32. Planning
33. Organising
34. Staffing
35. Directing
36. Controlling
37. Line organisation
38. Line and staff organisation
39. Bureaucratic management
40. Autocratic leadership
41. Red tapism
42. Linear programming
43. Game theory
44. Network Analysis
45. Break-Even Analysis
46. System Approach
47. Cash benefit analysis
48. Periodic meeting
49. KRAs
50. Five forces analysis

C. Answer within three sentences.

1. Define management
2. Discuss the functions of management.
3. What is time study?
4. Scientific management.
5. Two feature of BPR.
6. What are rules?
7. What is strategy?
8. What is programme?
9. Span of management
10. Organisation structure
11. Delegation
12. Authority
13. Decentralisation
14. Delegation of authority
15. Staffing
16. Motivation
17. Theories of motivation
18. Leadership
19. Write two qualities of a leader
20. Communication
21. Controlling
22. Communication process
23. Barriers of communication
24. Emotional barrier
25. Leadership
26. Modernisation
27. Virtual networked organisation
28. Informal organisation
29. MIS
30. Brain storming
31. Decision Making
32. Value chain
33. Learning organisation
34. BOP

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- 35.Mission
- 36.Objective
- 37.Budget
- 38.Project
- 39.Schedules
- 40.Micro Environment
- 41.Internal Environment
- 42.External Environment
- 43.Social Environment
- 44.Political Environment
- 45.Legal Environment
- 46.Diagnosis
- 47.Threats
- 48.Opportunities
- 49.TOWS matrix
- 50.Competitor analysis

long type Questions

1. “Management is the art of getting things done through people efficiently and effectively”.
2. Define management ? Discuss various concepts of management in detail.
3. Modern management is the sum total of the contribution of great management theories” Discuss.
4. Make a comparison between Taylor and Fayol principles of management.
5. Planning gives direction to managers and organisations. Elucidate.
6. What do you mean by strategy? Discuss the strategy formulation process in detail.
7. What do you understand by organising? Discuss the nature of organising.
8. Define the term “span of management”. Explain the factors which determine the span of management?
9. What do you mean by delegation of authority. Explain its process.
10. Explain the meaning and importance of staffing function?

11. Explain the process of staffing?
12. Explain Maslow's theory of need hierarchy. How does this theory help in motivating the employees.
13. Define Motivation. Explain various techniques to increase motivation.
14. Define leadership. Explain its features and discuss its importance.
15. What is communication? Discuss the main features of communication?
16. PERT and CPM are network techniques for proper management in a time bound and cost-conscious manner.
17. Management is all about seeing channellings as disguised opportunities. comment on the statements.
18. Describe the various medias of communication.
19. What do you mean by globalisation of business? Give some measure challenges of globalisation.
20. Describe the common barriers to effective inter personal communication. How ma these barriers may be overcome?

GE-3

SUB-BUSINESS STATISTICS

A. Fill in the blanks

1. _____ defines statistics in plural sense as aggregate of facts.
2. In plural sense statistics refers to _____.
3. In singular sense statistics refers to _____.
4. Distrust of statistics refers to the lack of confidence in statistical _____.
5. _____ data in the original data collected by the investigator for the purpose of investigation.
6. _____ data already collected by someone and used by the investigator.
7. A list of questions prepared by the investigator which used to be answer is called as _____.
8. _____ refers to the basis of collection of statistics in a statistical enquiry like per k.g, per litre.
9. _____ method should be used in case of intimate population.
10. _____ refers to the process of grouping of data on the basis of common features.

11. _____ refers to the data which are presented in some order and sequence.
12. _____ means any characteristics item which varies or changes in magnitude.
13. _____ refers to a distribution shows the frequency of different values.
14. _____ series refers to a series which upper limit of a class is not the same as lower limit of next class.
15. _____ refers to systematic arrangement of data in rows and columns.
16. _____ refers to the vertical column headings in a statistical table.
17. _____ refers to the headings of horizontal row in a statistical table.
18. An _____ is a figure that represents the whole group.
19. _____ is a value which divide the series in to two equal parts.
20. _____ is a value which divide the series into ta hundred equal parts.
21. _____ is the value which occurs most frequently in a series of items.
22. _____ is the nth root of the product of “n” items.
23. The difference between Q3 and Q1 is called _____.
24. The other name of quartile deviation is _____.
25. _____ is the average difference between the items in a series from mean, median, and mode.
26. _____ is the square root of the mean of the square deviation from actual mean.
27. _____ is the square of the standard deviation.
28. _____ is the graphical method of study the dispersion.
29. _____ refers to a lack of symmetry in a frequency distribution.
30. The limit of skewness lies in _____ but exceeding between _____ in certain cases.
31. _____ refers to analysis deals with the association between two or more variables.
32. The value of correlation varies in between _____.
33. _____ is an error studied to know whether the vale of “r” is significant or not.
34. _____ is the formula of calculating standard error of estimate .

35. _____ is statistical method of studying the nature of relationship between two or more variable to make prediction.
36. The regression equation "X" on "Y" is _____.
37. The regression equation "Y" on "X" is _____.
38. _____ index numbers are most popular and commonly used index numbers.
39. _____ index number measures the changes in general price level of a commodity.
40. When index numbers are constructed for a group of commodities, they are called _____ index number.
41. When index numbers are constructed for individual commodities, they are called _____ index numbers.
42. Cost of living index numbers are also called as _____ index numbers.
43. _____ index number measure the general change in the retail price of the commodities.
44. _____ index number measure the changes in the value of some commodities or a group of commodities.
45. _____ index number helps in measuring and comparing the changes in the physical volume of goods in a given period.
46. The formula of time reversal test is _____.
47. A set of data depending upon the time is called as _____ analysis.
48. When long term rise or fall in a times series takes place by a constant amount the that is called _____.
49. _____ variation refers to periodic variation in a time series which occurred regularly within the period of 12 months.
50. The possible outcome of a trial or experiment is called as _____

B. Answer the followings in two sentences.

1. State the functions of statistics.
2. Explain two limitation of statistics.
3. State two types of statistical data.
4. What do you mean by internal and external source of data?
5. Explain two merits of primary data?
6. Explain any two demits of secondary data.
7. State two any technique applied in collection of data.
8. State any two merits of sampling.

9. Explain any two objective of tabulation of data.
- 10.State any two objectives of statistical average.
- 11.How many types of series?
- 12.State any two merits of A.M.
- 13.State two demerits of median.
- 14.State any two uses of mode.
- 15.Explain any two relative measures of dispersion.
- 16.State two merit of Mean Deviation.
- 17.Write the formula of calculating Standard Deviation of first 'n' natural number.
- 18.Write the formula of calculating combined Standard Deviation.
- 19.State any two properties of Standard deviation.
- 20.State two two types of skewness.
- 21.Explain any two relative measures of skewness.
- 22.State any two types of correlation.
- 23.Write the formula of Karl person's coefficient of correlation.
- 24.Explain two merits of correlation.
- 25.Mention any two type of graph.
- 26.State any two benefit of graphic representation of data.
- 27.Explain any two frequency distribution of graph.
- 28.What is histogram and frequency Polygon.
- 29.Write the formula of calculating correlation with the help of regression coefficient .
- 30.Write the formula of calculating probable error.
- 31.State any two type of regression analysis.
- 32.State any two method of regression lines.
- 33.State the formula of regression coefficient of "X" on "Y".
- 34.State the formula of regression coefficient of "Y" on "X".
- 35.State any two properties of regression coefficient.
- 36.Write the formula of Standard error of estimate of "Y" on "X".
- 37.Write any two uses of index numbers.
- 38.Write any two limitations of index numbers.
- 39.Write any two methods of calculating index numbers.
- 40.Explain two types of index numbers.
- 41.State any two problems ion constructing index number.
- 42.Write any two method of constructing weighted index number.
- 43.Write the formula of Fishers index number.

- 44.State any two uses of consumers price index numbers.
- 45.State any two utilities of analysis time series.
- 46.State any two components of time series analysis.
- 47.State any two methods of measuring trend in time series analysis.
- 48.Write any two definition of probabilities.
- 49.Write any importance of probabilities.
- 50.Find the probabilities of getting head in tossing a coin for two times.

C. Answer the followings in five sentences.

1. Explain any three features of statistics.
2. Write any three scope of statistics.
3. Write any limitation of statistics.
4. State nay three functions of statistics.
5. State any three factor considered for statistical enquiry.
6. Write any three methods used in collection of primary data.
7. State any three difference primary data and secondary data.
8. State any three difference between sampling and causes techniques.
9. State any three method of sampling.
- 10.State any three statistical errors.
- 11.State any three merits of classification of data.
- 12.Explain any three types of statistical serieses .
- 13.State any three types of continuous.
- 14.State any three importance of tabulation of data.
- 15.State any three any difference between graph and diagram.
- 16.State any three objectives of statistical average.
- 17.Write any three merits of A.M .
- 18.Write any three merits of median.
- 19.Write any three merits of mode.
- 20.Calculate the combined A.M from the following two series.

	1 st series	2 nd series
N	100	50
A.M	20	35

21. state the relationship between A.M a, G.M and H.M.
22. state any three merits of Range.
23. Explain any three merits of Mean Deviation.
- 24.State any three difference between M.D and S.D.
25. state any three measure of Dispersion.

26. calculate The S.D of first 20 natural numbers.
27. Explain any three relative measure of skewness.
28. Write the formula of Karl person's coefficient of skewness.
29. write any three types of Kurtosis.
30. write any three difference between skewness and Kurtosis.
31. write any three type of correlation analysis.
32. Explain any three method used to calculate correlation.
33. Define error and probable error in statistics.
34. write the formula of calculating the standard error of estimate.
35. write any three merits of correlation.
36. write the formula for calculating Spearman's Rank Correlation.
37. state the difference between correlation and causation.
38. state any three utilities of Regression analysis.
39. state any three types of regression analysis.
40. write the method of Obtaining Regression lines.
41. Write any three properties of Regression coefficient .
42. write any three methods of computing Regression equation by using Regression coefficient.
43. write any uses of index numbers.
44. Write any three limitation of index numbers.
45. state any 6 three types of index numbers.
46. write any three problems in constructing index number.
47. write any three utilities of time series.
48. Write any three components of time series.
49. Write any three methods of measuring trend in time series analysis.
50. Define probability and explain any three importance of probability.

LONG ANSWER TYPE QUESTION

1. Define Statistics Explain the importance function limitation statistics?
2. What do you mean by statistical data? Explain the various bures which are used to do clarify the collected data?
3. What do you mean by means of cutul tendency? What are the characterstics of a good measure of contral tendency?
4. Discuss the verit and dencits of various means of central tendency?
5. Find the missing frequencies from the following data. When mediam and mode are 33.52 and 34.5 respectively?

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70	Total
Presuay	4	16	X	Y	Z	6	4	100

6. Determine the qustiks from the folloing series ?

Mid value	5	10	15	20	25	30	35	40	45
fresuex	1	2	3	4	5	6	7	8	9

7. From the folloing data find the value of mode by a switable method:-

Size of item	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79
Fresu	10	14	16	14	11	13	17	13

8. What are the various measure of dispnsion? Explain the relative merit and demerits of each?

9. From the folloing data find mean deviation and its coettient from median?

Ase sny	16-20	21-25	36-30	31-35	36-40	41-45	46-50
No of Persons	7	3	8	15	13	9	5

10. From the following data culeulate standard deviation and co-efficient of variation?

Age	10-19	20-29	30-39	40-49	50-59	60-69	70-79
No of Persons	2	50	140	150	130	60	7

11. What do you mean by theoretical probability distribution? Discuss the important proportion of binomial distribution?

12. What is normal distribution? Discuss the salient feature of normal binomial and poisson probability distribution?

13. What do you mean by skewness and kurtosis? What are the difference between skewness and kurtosis?

14. Find Karl Pearson's coefficient of skewness from the following data-

Height	60-62	63-65	66-68	69-71	72-74	Total
Freshway	5	18	42	27	8	100

15. From the following bivariate table? Find the study of correlation between two variables?

X/Y	0-10	10-20	20-30	30-40
0-5	2	4	5	4
5-10	5	3	6	3
10-15	3	1	2	2

16. Calculate rank correlation from the following data:-

Mark in Accountancy	39	65	62	90	82	75	28	98	36	78
Mark in Statistic	47	53	58	86	62	68	60	91	51	84

17. From the following data given below-

- Fit a regression line of X on Y and hence predict the value of X when Y=25
- Also find the coefficient of correlation.

X	1	2	3	4	5	6	7	8	9
Y	9	8	10	12	11	13	14	16	15

18. (A) what is a time series analysis?

(B) fit a straight line trend by using least square method from the figures of production of a sugar factory.

Year	2001	2002	2003	2004	2005	2006	2007
Production in Thousand Quintals	77	88	94	95	91	98	90

19. From the following information calculate cost of living index.

Items	Food	Rent	Clothing	Education	Miscellaneous
Expansion %	30	25	15	10	20
Price in 2018	180	100	70	40	70
Price in 2019	200	120	90	50	100

20. (A) What is base shifting spiving and deteation of index number?

(B) reconstrnet the following indices by using 2009 is base year.

Year	2005	2006	2007	2008	2009	2010	2011
Index no (2001=100)	110	130	150	175	180	200	280

E-COMMERCE (COMPULSORY)

A. Fill in the blanks.

1. For a common man e-commerce is known as buying & selling of products and services over the _____.
2. _____ refers to the exchange of many potential buyer and many potential sellers in B2B e-marketplace.
3. Sell-side e-market place involve _____ seller and many potential buyers.
4. Mostly _____ oriented market places are prominent in industrial sectors with a few eminent buyers.
5. _____ provides companies with a means to conduct interactive, personalized and relevant communications with customers over electronic means.
6. Operational E-CRM is also known as _____ office management.
7. The four elements in E-CRM includes selection, acquisition, _____ and extension of customers.
8. _____ type of E-CRM enables communications and involves the areas where direct customer contact occurs.

9. _____ type of E-CRM is the communication centre of the coordination network that provides the paths to the customer and supplier.
10. The last phase of a customer relationship management cycle is _____.
11. The _____ includes all the activities associated with the flow of goods from the raw materials stage all the way to the end user.
12. _____ is the most common types of supply chains where ERP packages and organizational interaction operational are well-coordinated and managed.
13. The _____ includes all the activities associated with flow of goods from the raw materials stage all the way to the end user.
14. _____ are the highest form of supply chains which avoid optimization in parts and focus on total optimization.
15. _____ chains aim to provide the organization with a negative working capital.
16. Electronic payment or e-payment is a digital payment for a transaction made on the _____.
17. A _____ card is a plastic payment card that contains data in an embedded microchip.
18. The full form NEFT is _____.
19. The full form of RTGS is _____.
20. _____ is the technology that enables contactless payments.
21. The full form of NFC is _____.
22. A _____ is a virtual wallet that stores payment card information on a mobile device.
23. The QR code system was invented in the year _____ by a Japanese company called Denso wave.
24. QR codes consists of _____ squares arranged in a grid on a white background.
25. _____ is one of biggest payment gateway companies in India in terms of their market share in the payment gateway industry.
26. In CBS system CORE stands for _____.
27. UPI is a single-window mobile payment system developed by _____.
28. _____ is the largest network of shared automated teller machine in India
29. The full form of NFS developed by NPCI, is _____.
30. BHIM is an app that lets you make simple, easy and quick payment transaction using _____ interface.
31. The full form of BHIM is _____.

32. _____ are the electronic equivalent of personal signatures on paper.
33. Digital signatures are difficult to forge since they authenticate the identity of the sender that uses the key _____.
34. In Public key cryptography, one key called the private key, _____ the data and the other decrypts the data.
35. The full form of PKI in digital signature is _____.
36. Full form of NPCI _____.
37. Full form of NACH is _____.
38. _____ is a method of banking in which transactions are conducted electronically over the internet.
39. Online banking was in the year _____ in the United Kingdom for the first time.
40. In India _____ bank introduced internet banking to its customers in the year 1998.
41. There are various types of electronic funds transfer which include NEFT, RTGS or _____.
42. The acronym ERP was first used by _____ in the 1990.
43. ERP is a complex software system that _____ all basic processes of a business.
44. In 1913, _____ developed EOQ model for production scheduling.
45. SAP introduced by _____ company.
46. Digital Marketing is the use of _____ channels to promote or market products and services to targeted consumers and businesses.
47. _____ advertising is a form of paid digital marketing where advertisers pay a fee each time their ad is clicked.
48. The generation X prefers shopping on _____.
49. The term 'social commerce' was first used by _____ company in 2005.
50. _____ refers to paid online marketing efforts that are designed to increase visibility and drive traffic to organization's website.

B. Answer with Two sentences.

1. Define E-commerce.
2. Define EDI.
3. What is Portal?

4. Define Market Creator.
5. What is content provider?
6. What is E-CRM?
7. Explain the components of E-CRM.
8. What is customer acquisition?
9. Define Analytical E-CRM.
10. What is awareness stage of CRM?
11. Internal supply chains
12. Value chains
13. Debit card
14. Credit card
15. Online banking
16. Smart card
17. Mobile payment system
18. You tube
19. Digital currency
20. Define E-money.
21. What is BHIM?
22. Define Digital signature
23. Define electronic signature
24. What is digital certificate?
25. What is hash function?
26. What is public key infrastructure?
27. What is public key cryptography?
28. Who is certificate authority for digital certificate?
29. What is automated clearing house?
30. What is automated ledger posting?
31. What is online banking.
32. What is electronic fund transfer?
33. Write two modes of EFT.
34. What is SAP?
35. What is extended ERP?
36. Define cloud computing?
37. What do you mean by Two-tier ERP?
38. Write any two limitations of ERP.
39. Define social commerce.
40. Define digital marketing.
41. What do you understand by social media?
42. Name any four social media advertisement.
43. Define Website traffic.

44. Define Affiliate Marketing.
45. What is Email Marketing?
46. What is mobile marketing?
47. What is organic content in media advertising?
48. What is word of mouth referrals?
49. What is viral commerce?
50. What is search engine optimization?

C. Answer within Five sentences.

1. Differentiate between B2B and B2C business models.
2. What are the advantages of E-commerce to the society?
3. What is collaborative e-commerce?
4. What is P2P model of E-commerce?
5. Define G2C model of E-governance?
6. Define C2B model of E-commerce?
7. Write a brief note on the feature of e-commerce?
8. What do you mean by supply-oriented market?
9. What is E-CRM?
10. Explain the components of E-CRM?
11. What is customer acquisition?
12. Define Analytical E-CRM?
13. How CRM is different from E-CRM?
14. What are the features of E-CRM?
15. Define supply chain management.
16. Explain components of supply chain management.
17. What are the advantages of SCM?
18. Distinguish between Debit card and credit card.
19. Distinguish between smart card and debit card.
20. What is e-payment utilities?
21. What do you mean by onetime payment system?
22. What is NEFT? What are its benefits?
23. What is RTGS? what are its advantages?
24. What is Aadhar enabled payment system?
25. What are risks associated with e-payments?
26. What do you mean by digital signature? Discuss the process of creating digital signature?
27. What are the objectives of the information technology act, 2000?
28. What are the features of digital signature?

29. How is digital signature and evidence act connected?
30. What do you mean by secure electronic record and signature?
31. What are the features of online banking?
32. Discuss the steps of online banking?
33. What are the modes of EFT?
34. What is the function of automated clearing house?
35. Define enterprise resource planning?
36. Write notes on inventory control system.
37. What do you mean by manufacturing resource planning?
38. Write any four characteristics of ERP system.
39. What are functions of finance and Accounting ERP module?
40. What are the function of supply chain management ERP module?
41. What do you mean by Government resource planning?
42. Write any five limitations of ERP.
43. Write four features of social commerce.
44. Write four features of digital marketing.
45. Write any two objectives of digital marketing.
46. Define social media marketing?
47. Distinguish between social commerce and e-commerce.
48. What is search engine marketing?
49. What is search engine optimization?
50. What is word-of-mouth referrals?

C. Long Answer Type Questions.

1. What is e-commerce? Explain its features?
2. Explain major B2B business models with the help of example.
3. Describe different e-commerce models prevalent in industry.
4. What is supply chain management? Discuss the features and components of supply chain management.
5. Discuss various advantages and limitation of supply chain management.
6. What is e-payment gateway? Discuss the process of payment through gateway.
7. Discuss the penalty and compensation provisions as per information technology Amendment act, 2008.
8. Discuss the legal provisions relating to regulation of certifying of digital signature and electronic signature as per the information technology amendment act, 2008.
9. Define online banking. What are its features and importance of online banking?

10. What do you mean by electronic fund transfer? what are the modes of EFT?
11. Define ERP. Discuss its origin and development over the years.
12. What are the characteristics and features of an ERP system?
13. Explain various levels of ERP in details.
14. Explain how ERP is beneficial to an organization? What are its shortcomings?
15. What do you mean by ERP modules? Discuss various modules of ERP.
16. Define social commerce. How is it different from e-commerce? Discuss various features of social commerce.
17. What do you mean by Digital marketing? What are its objectives and limitations of digital marketing?
18. What do you mean by advertisement in social media? what are its objectives?
19. Define advertisement in social media. Discuss various advantages and limitations of advertisement in social media.
20. Explain the procedure of advertisement in social media in details.

+3 2ND YEAR 4TH SEMESTER

COST AND MANAGEMENT ACCOUNTING (CORE-8)

Section -I

1. What is cost accounting?
2. What is management accounting?
3. What is cost accountancy?
4. What is costing?
5. What is cost accounting? Discuss briefly its important functions in a business firm.
6. Discuss briefly the limitation of cost accounting.
7. Direct labour
8. Direct material
9. Direct expenses
10. Overhead
11. Cost sheet or statement of cost
12. Cost
13. Cost centre
14. Profit centre
15. Sunk cost
16. Fixed cost

17. Variable cost
18. Semi-variable cost.
19. Material control
20. Centralised purchasing
21. Decentralised purchasing
22. What are the different types of material?
23. What are the two aspects of material control?
24. What is the difference between stores and stock?
25. What is purchase requisition?
26. Give the names of eight methods of valuing material issues.
27. How will you do the pricing of return of surplus materials?
28. Write short note on material transfer note.
29. Name the techniques of material control.
30. What is economic ordering quantity?
31. What is ordering cost? What is material turnover ratio? How is it calculated?
32. Distinguished between re-order level and re-order quantity.
33. What do you mean by fringe benefits?
34. What is idle time?
35. What is overtime?
36. What is the basic idea behind Taylor's differential piece rate system?
37. What is time rate system?
38. What is piece rate system?
39. How to calculate machine hour rate?
40. What is the difference between under absorption and over absorption?
41. What is unit costing?
42. What is job costing?
43. What is contract costing?
44. What is process costing?

45. How to calculate work in progress?
46. What do you mean by a budget?
47. What is operating budget?
48. Write short note on cash budget.
49. What is zero based budgeting?
50. Difference between standard cost and estimated cost?
51. What is material cost variance?
52. What is idle time variance?
53. What is sales mix variance?
54. What is material yield variance?

Section – II

1. State and explain the main differences between financial accounting and cost accounting.
2. Describe the relationship between cost and financial accounting. Explain in brief the advantages of cost accounting.
3. What do you understand by material control? How is it planned and organized?
4. Explain the average cost method of pricing raw materials issued to production centre. Give an example with assumed figures.
5. What is economic order quantity? How is it calculated? Is it different from re-order quantity?
6. Explain idle time cost and overtime cost and indicate steps you would take to control them.
7. What is the impact of labour turnover in manufacturing organisations working?
8. Describe the factors which should be kept in mind while adopting a particular type of wages method.

9. What is meant by incentive scheme of wage payment? Describe the characteristics and drawback common to such schemes.
10. Distinguish between allocation, apportionment and absorption of overheads.
11. Explain normal loss, abnormal loss and abnormal gain and state how they should be dealt with in process cost accounts.
12. Explain briefly the procedure for valuation of work-in-progress.
13. What is job costing? What are the main features of job order costing? Give a Performa cost sheet under such a system.
14. What is batch costing? What is the costing procedure used in batch costing? Name three such industries where batch costing may be used.
15. Discuss the procedure followed in accounting for costs under contract costing.
16. What is budgetary control? State the main objectives of budgetary control. What are the main steps in budgetary control?
17. Define flexible budget and explain its importance as a budgeting technique and tool of control.
18. Explain the relationship between budget and budgetary control.
19. Describe briefly the procedure of establishing standard costs within the divisions of material, labour and overhead costs.
20. What is two variance analysis of overheads? Give a brief description.
21. Define marginal cost and marginal costing. How variable costs and fixed costs are treated in marginal costing.
22. Explain the concept of marginal costing. What are the characteristics and assumptions of marginal costing?
23. Explain the term break-even point. How is it determined and what is its use?
24. "The technique of marginal costing can be a valuable aid to management" discuss.

25. What do you understand by the term "cost-volume-profit" relationship?
Why is this relationship important in business management?

CORE-9

BUSINESS MATHEMATIC

Short answer type question

1. What do you mean by determinant ?
2. What is matrix?
3. What is adjugate determinant?
4. What is minor?
5. What is co-factor?
6. What is a determinant of order two and order three?
7. What are minors?
8. What are cofactors?
9. Find minors of the following determinant?

$$A = \begin{vmatrix} 6 & 7 \\ 2 & 4 \end{vmatrix}$$

10. What is diagonal matrix?
11. What is skew-symmetric matrix?
12. What is scalar matrix?
13. What is equal matrix and equivalent matrix?
14. Evaluate $\begin{vmatrix} 2X+3 & X+2 \\ 2X+1 & X+1 \end{vmatrix}$
15. Evaluate the following determinant by using Sarrus diagram:-

$$A = \begin{vmatrix} 1 & 2 & 3 \\ 2 & 3 & 4 \\ 3 & 4 & 5 \end{vmatrix}$$

16. If matrix $A = \begin{bmatrix} 2 & 5 \\ 1 & 3 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & -1 \\ -1 & 0 \end{bmatrix}$ Find $-A$ & B ?
17. What is relation and function?

18. What is an into function?

19. what is an on- to function?

20. Explain Domain and range?

21. Find the domain and range in-

$$F(X) = X^2 + 1$$

22. What do you mean by limit?

23. What do you by continuity?

24. Evaluate $\left[\begin{array}{l} \text{Limit} \\ X \rightarrow 3 \end{array} \frac{X^3 - 27}{X - 3} \right]$

25. If $Y = 3X^3 + 4X^2 - 5X + 3$

Find $\frac{dy}{dx}$

26. When $Y = e^{x^2}$

Find $\frac{dy}{dx}$

27. When $Y = a^{x^2}$

Find $\frac{dy}{dx}$

28. When $Y = \log X^2$

Find $\frac{dy}{dx}$

29. Integrate the following.

$$I = \int (ax^2 + bx + c/x) dx$$

30. Evaluate

$$I = \int (X \cdot \log x) \cdot dx$$

31. Evaluate-

$$I = \int (x - 1/x)^2 \cdot dx$$

32. If the rate of sale of a product in given by $S(T) = 100^{-0.5t}$, find the sales in 4th year.?

33. Find the value of $\int (X^2 + \sqrt{x} - 2x) dx$?

34. If the marginal cost for some product in given by, $MC = 1 + 2x + 6x^2$, find total cost and average cost when fixed cost is Rs.100.?

35. Given the demand function, $P = (20-2x)$. Find the price elasticity of demand at $P = 4$?
36. If the demand function, $P = (4 - 5x)^2$, for what value of 'X' the elasticity of demand is unity?
37. Define simple interest and compound interest?
38. Write the formula of compound interest calculated half yearly and quarterly?
39. Explain continuous compounding of interest with its formula?
40. What do you mean by annuity ? and immediate annuity?
41. Explain due annuity and differed annuity with its formula?
42. Explain perpetual annuity or perpetuity?
43. Write the formula of the total amount and present value of an annuity?
44. Explain differed perpetual annuity with its formula?
45. Explain the meaning and detimition of linear programming?
46. Write any two application of linear programming in business?
47. Write two method of solution of linear programming problems?
48. Explain feasible solution and optimum solution of linear programmes problems?
49. Explain the term critical path method (CPM)?
50. What do you mean by programme evaluation and review technique (PERT)?

LONG ANSWER TYPE QUESTIONS

1. Prove that:-

$$\begin{vmatrix} 1+a & 1 & 1 \\ 1 & 1+b & 1 \\ 1 & 1 & 1+c \end{vmatrix} = abc (1 + 1/a + 1/b + 1/c)$$

2. Prove that :-

$$\begin{vmatrix} 1 & 1 & 1 \\ a^2 & b^2 & c^2 \\ a^3 & b^3 & c^3 \end{vmatrix} = (a-b) (b-c) (c-a) (ab+bc+ca)$$

3. Solve the following equation by using Eramer's rules-

$$\begin{aligned} X+y+z &= 6 \\ 2x-y+2z &= 6 \\ (-x-y) &= -5 \end{aligned}$$

4. Solve the following equation by using matrix method-

$$\begin{aligned} X+y+z &= 6 \\ Y+3z &= 11 \end{aligned}$$

$$x-2y+z=0$$

5. Find the value of the following matrix-

$$A = \begin{pmatrix} 2 & -1 & 3 \\ 1 & 1 & 1 \\ 1 & -1 & 1 \end{pmatrix}$$

6. A manufacture produces three products A,B and C which he sells in two markets. Annual sale volume are given as follows.

<u>Market</u>	<u>Products</u>		
	A	B	C
I	10000	2000	18000
II	6000	20000	8000

Find the total revenue in each market if the sales price of A,B and C are Rs.2.50, Rs.1.25 and Rs.1.50 respectively.

7. A) Evaluate-

$$\lim_{x \rightarrow 2} \frac{x^2 - 5x + 6}{x^2 - 4}$$

B) Evaluate-

$$\lim_{x \rightarrow 3} \frac{x^3 - 27}{x - 3}$$

8. A) Evaluate-

$$\lim_{x \rightarrow 0} \frac{\sqrt{9+2x} - 3}{x}$$

B) Evaluate:-

$$\lim_{x \rightarrow a} \frac{\sqrt{x} - \sqrt{a}}{x - a}$$

9. A) Evaluate:-

$$\lim_{X \rightarrow 8} \frac{2x^2 + 5x + 3}{3x^2 + 10x + 8}$$

B) prove that function $F(x) = \frac{1}{x-2}$ is

continuous for values of $X = -2$ and $X = -1$

10. A) If $Y = \sqrt{\frac{1-x^2}{1+x^2}}$ then find $\frac{dy}{dx}$

B) If $Y = \frac{1}{\sqrt{x+1} - \sqrt{x-1}}$ then find $\frac{dy}{dx}$

11. A) Find $\frac{dy}{dx}$

When $y = \log(x + \sqrt{x^2 + a^2})$

B) Find $\frac{dy}{dx}$

When $y = x^2 \log x$

12. A) find $\frac{dy}{dx}$

If $X = Y(1 + \log x)$

B) If

$X = at^2$ and $Y = 2at$

Find $\frac{dy^2}{dx^2}$

13. The demand function is given as:-

$P = 10 + 2x + 3x^2$, when $P = \text{price}$

And X is the quantity sold.

I) Find TR , AR and MR

II) Show that $MR = p + x \frac{dp}{dx}$

14. Show that the curve $Y = X + \frac{1}{X}$

Has one maximum and one minimum value. So that the latter is larger than the former.

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15 . Evaluate the following integrals

A) $\int (x \sqrt{x^2 + a^2}) dx$

B) $\int \left[\frac{\log x}{x} \right] . dx$

16. Evaluate the following:-

A) $\int \frac{x+1}{\sqrt{2x^2+4x+2}} dx$

B) $\int \left[\frac{1}{x \log x} \right] dx$

17. A machine costs a company Rs.50000/- its effective life time is estimated to be 10 years. A sinking fund is created for replacing the machine at the end of its life time when its scrap realises Rs.5000/- only. Calculate what amount should be invested out of profit at the end of each year to calculate @ 5% interest compounded annually.

18. A person takes a loan from a bank Rs.100000/- for 5 years for his children's college education. How much amount should be repaid half yearly in the account paying @ 5% interest compounded half yearly.

19. By using graphical method solve the following LPP.

Maximise $Z = 10x_1 + 6x_2$

Subject to constraints:-

$5x_1 + 3x_2 \leq 30$

$x_1 + 2x_2 \leq 18$

and $x_1, x_2 \geq 0$

20. Solve the following LLP by simplex method.

$Z = 16x_1 + 8x_2$

Subject to :-

$x_1 + x_2 \leq 200$

$6x_1 + 3x_2 \leq 900$

$x_1 \leq 125$

And $x_1, x_2 \geq 0$

GE-3

SUB-BUSINESS STATISTICS

(Answer the following question in two sentences)

1. Define statistics and explain the scope of statistics?
2. Explain any two important of statistics?
3. Explain any two limitation of statistics?
4. Explain any two types of statistics data?
5. What do you mean by frequency distribution?
6. What do you mean by discrete series?
7. Explain any two types of continuous series?
8. Explain any tow characteristics of a good average?
9. Write any two uses of arithmetic mean?
10. Explain any tow merits of median?
11. Explain any tow demerits of mode?
12. What do you mean by mearws of dispursion?
13. Explain any tow methods of measury dispursion?
14. Write any tow propoties of a good measure of dispassion?
15. What do you mean by range?
16. Define mean deviasion?
17. What do you mean by quasite devlab?
18. Write any tow merits of qualite deviation?
19. What do you mean by standard deviation and coefficient of variation?
20. Explain the uses of coefficient and variance of valuation?
21. Do you mean by combined standard deviation?
22. What do you mean by skewness and kurtosis?
23. Explain any tow different between dispension and skewnts?
24. Write any tow methods of meaning skewness?

25. Write the formula measure skewness by using Karl Pearson's methods?
26. What do you mean by correlation analysis?
27. Write any two types of correlation?
28. Write the formula of Karl Pearson's coefficient?
29. Form the following data find co-efficient of correlation? $N=15, x=25, y=18, \sum x^2=136, \sum y^2=138, \sum xy=122$
30. What do you mean by regression analysis ?
31. What is the difference between regression analysis and correlation analysis?
32. Write any two types of regression analysis?
33. Write the formula of regression equation of x & y?
34. Write the formula of regression of y on x?
35. Write any two utility of regression analysis?
36. What do you mean by index number?
37. Write any two uses of index no?
38. Write any two limitation of index no?
39. What do you mean by analysis of time series?
40. Write any two components of time series?
41. Write any two utility of time series?
42. Write any two methods of measuring trend in time series?
43. What do you mean by theoretical or probability distribution?
44. Discuss any two types of probability distribution?
45. Discuss any two uses of probability distribution?
46. What do you mean by binomial distribution?
47. Explain normal distribution as a limiting form of binomial distribution?
48. Write any two properties of normal distribution?
49. What do you mean by Poisson distribution?
50. Explain the relation among normal binomial and Poisson distribution?

LONG ANSWER TYPE QUESTION

21. Define Statistics Explain the importance function limitation statistics?
22. What do you mean by statistical data? Explain the various bures which are used to do clarify the collected data?
23. What do you mean by means of cutul tendency? What are the characterstics of a good measure of contral tendency?
24. Discuss the verit and dencits of various means of central tendency?
25. Find the missing frequencies from the following data. When mediam and mode are 33.52 and 34.5 respectively?

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70	Total
Presuay	4	16	X	Y	Z	6	4	100

26. Determine the qustiks from the folloing series ?

Mid value	5	10	15	20	25	30	35	40	45
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fresuex	1	2	3	4	5	6	7	8	9
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27. From the following data find the value of mode by a suitable method:-

Size of item	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79
Fresu	10	14	16	14	11	13	17	13

28. What are the various measures of dispersion? Explain the relative merits and demerits of each?

29. From the following data find mean deviation and its coefficient from median?

Age group	16-20	21-25	26-30	31-35	36-40	41-45	46-50
No of Persons	7	3	8	15	13	9	5

30. From the following data calculate standard deviation and coefficient of variation?

Age	10-19	20-29	30-39	40-49	50-59	60-69	70-79
No of Persons	2	50	140	150	130	60	7

31. What do you mean by theoretical probability distribution? Discuss the important properties of binomial distribution?

32. What is normal distribution? Discuss the salient features of normal binomial and poisson probability distribution?

33. What do you mean by skewness and kurtosis? What are the differences between skewness and kurtosis?

34. Find Karl Pearson's coefficient of skewness from the following data-

Height	60-62	63-65	66-68	69-71	72-74	Total
Freshway	5	18	42	27	8	100

35. From the following bivariate table find the coefficient of correlation between two variables?

X/Y	0-10	10-20	20-30	30-40
0-5	2	4	5	4

5-10	5	3	6	3
10-15	3	1	2	2

36. Calculate rank correlation from the following data:-

Mark in Accountancy	39	65	62	90	82	75	28	98	36	78
Mark in Statistic	47	53	58	86	62	68	60	91	51	84

37. From the following data given below-

- c) Fit a regression line of X on Y and hence predict the value of X when Y=25
- d) Also find the coefficient of correlation.

X	1	2	3	4	5	6	7	8	9
Y	9	8	10	12	11	13	14	16	15

38. (A) what is a time series analysis?

- (B) fit a straight line trend by using least square method from the figures of production of a sugar factory.

Year	2001	2002	2003	2004	2005	2006	2007
Production in Thousand Quintals	77	88	94	95	91	98	90

39. From the following information calculate cost of living index.

Items	Food	Rent	Clothing	Education	Miscellaneous
Expension %	30	25	15	10	20
Price in 2018	180	100	70	40	70
Price in 2019	200	120	90	50	100

40. (A) What is base shifting spiving and deteation of index number?

- (B) reconstrnet the following indices by using 2009 is base year.

Year	2005	2006	2007	2008	2009	2010	2011
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Index no (2001=100)	110	130	150	175	180	200	280
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