Total No. of Questions : 3]

SEAT No. :

PA-1956

[Total No. of Pages : 2

[5954]-101

First Year B.B.A. (Computer Application)

CA-101 : BUSINESS COMMUNICATIONS SKILLS

(CBCS 2019 Pattern) (Semester-I)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***All questions are compulsory.***
2) ***Figures to the right indicate full marks.***

Q1) A) Fill in the Blanks (Attempt any 5 out of 6) : **[5]**

a) The term "communis" derived from _____ word.

i) Greek ii) Latin

iii) Chinese iv) English

b) Communication problems otherwise known as.

i) Enquire ii) Barriers

iii) Encoding iv) Decoding

c) Letters should be answerd _____ .

i) Promptly ii) Orally

iii) Non Verbally iv) Softly

d) Which of these is not a medium of e-mail?

i) Intranet ii) Internet

iii) Extranet iv) Paper

e) _____ is the easiest way of communication.

i) E-mail ii) Telephone

iii) Fax iv) Letter

f) The first page of a letter should be typed on a _____ .

i) Letterhead ii) Correctness

iii) Inside Address iv) Courtesy

P.T.O.

B) Match the following : **[5]**

	A		B
a)	Mentioning the number of the documents/papers are enclosed in the	i)	Reference Numbers
b)	Element which causes disturbance in the flow of communication	ii)	Official communication
c)	Office circulars should consists	iii)	Channel
d)	A memo is used as a means of	iv)	Sender
e)	Person who sends information to another person is	v)	Enclosures

C) True or False (Attempt any 4 out of 5) **:** **[4]**

a) Voice mail is a computer based system.

b) Orders and directives are the example of downward communication.

c) SMS stands for Social Message Service.

d) The word "memo" is a short form of Memorandum.

e) Good manners come from one's heart and not a formal etiquette book.

Q2) Short Answer (Attempt any 3 out of 4) : **[24]**

a) Explain the Role of Communication in social &economic system.

b) What are the merits & demerits of Oral communication?

c) Explain in detail different layout of business letter.

d) Explain the importance of fax communication & E-mails.

Q3) Long Answer (Attempt any 2 out of 4) **[32]**

a) What is communication? Explain need & principles of effective communications.

b) Explain in detail the Qualities and difficulties in written communication.

c) Explain in detail various types of business latter.

d) State and explain different media of communication.

Total No. of Questions : 3]

SEAT No. : ____

PA-1957

[Total No. of Pages : 2

[5954]-102

First Year .B.B.A.(Computer Application)
CA-102 : PRINCIPLES OF MANAGEMENT
(2019 Pattern) (Semester-I)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates:

1) ***All questions are compulsroy.***
2) ***Figure to the right indicate full marks.***

Q1) a) Fill in the blanks (any 5) **[5×1=5]**

i) _____ is second function of management.

ii) _____ is a universal concept.

iii) Management is a _____ because it is based on experiments.

iv) _____ propounded Hawthorne experiments.

v) _____ creates feeling of threat & fear among employees.

vi) _____ means assigning work to others.

b) Match the following (5 marks) **[5×1=5]**

i)	Henry Fayol	a)	Scientific Mgt-theory
ii)	F.W Taylor	b)	14 principles
iii)	Alton Mayo	c)	Hawthorne experiments
iv)	Peter Drucker	d)	MBO
v)	J.R.D Tat	e)	Diplomat

c) State True/False (any four) **[4×1=4]**

i) Stress results from mismatch between demands & pressures on the person on one hand & their knowledge and abilities on other.

ii) TQM is infinitely invariable & inadaptable.

iii) David Mcclelland is known for Needs Hierarchy of Motivation

iv) Forecasting is part of planning which involves estimating future course of action.

v) There is a close relation between planning & decision making.

P.T.O.

Q2) Answer any three : **[3×8=24]**

a) What are the types of decision making?

b) Explain management as an art.

c) What are principles of change?

d) Explain Maslow's Law of Hierarcly.

Q3) Answer any two: **[2×16=32]**

a) What is TQM? Explain elements of TQM.

b) What is planning? Explain its process with a flow diagram.

c) Explain Scientific Management Theory in detail.

● ● ●

Total No. of Questions : 5]

SEAT No. : ____

PA-4204

[Total No. of Pages : 2

[5954]-103A
F.Y. B.B.A. (CA)
CA - 103 : C LANGUAGE
(2019 Pattern) (CBCS) (Semester - I)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates :

1) ***All questions are compulsory.***
2) ***Figures to the right indicate full marks.***

Q1) **Attempt any Eight of the following (Out of Ten) :** **[8 × 2 = 16]**

a) Define token.

b) Explain break statement.

c) Define Structure.

d) What is Keywords?

e) Define Associativity.

f) What is pointer arithmetic?

g) Explain two dimensional array.

h) What do you mean by Variable?

i) Define string.

j) Explain the use of goto statement.

P.T.O.

Q2) **Attempt Any Four of the following (Out of Five) :** **[4 × 4 = 16]**

a) Explain do ... while loop statement with syntax and example.

b) Explain briefly structure declaration and accessing member from structure.

c) Explain Logical operator with example.

d) Explain briefly print( ) and scanf( ) I/O functions used in C.

e) Write a program to find even number from Array.

Q3) **Attempt Any Four of the following (Out of Five) :** **[4 × 4 = 16]**

a) Explain switch statement in detail.

b) Explain Increment/Decrement operator.

c) What is Array? Explain.

d) Write a program to find factorial of a given number.

e) Write a program to find sum of first n numbers.

Q4) **Attempt Any Four of the following (Out of Five) :** **[4 × 4 = 16]**

a) What is function? Explain types of function.

b) State and explain any four string functions used in C.

c) Explain if ..... else control statement.

d) Write a program to find maximum of 2 numbers.

e) Write a program to accept any number and display reverse digit of entered number.

Q5) **Write a short note on any Two of the following (Out of Three) :** **[2 × 3 = 6]**

a) Pointer.

b) *for* Loop.

c) Data Types.

Total No. of Questions : 5]

SEAT No. : ____

PA-1959

[Total No. of Pages : 3

[5954]-104

F.Y. B.B.A. (C.A.)

CA - 104 : DATABASE MANAGEMENT SYSTEM

(2019 Pattern) (CBCS) (Semester - I)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates :

1) ***All questions are compulsory.***
2) ***Figures to the right indicate full marks.***

Q1) **Attempt any Eight of the following :** **[16]**

a) What is File? Enlist types of files.

b) Define Data and Information.

c) What is Generalization? Give Example.

d) Explain the use of MIN 0 with example.

e) Define Attribute and Tuple.

f) What is RDBMS?

g) What is SQL? Enlist two types of SQL Commands.

h) What is Deletion Anomaly?

i) Explain Logical Data Independence.

j) Define Super Key.

Q2) **Attempt any Four of the following :** **[16]**

a) Explain in detail Sequential File Organization.

b) What is DBMS? Explain applications of DBMS.

c) Explain any four data types in SQL.

d) Explain CREATE TABLE command with syntax and example.

e) Explain functional dependency with example.

P.T.O.

Q3) **Attempt any Four of the following :** **[16]**

a) Consider the following Entities and Relationships & solve the queries :

Department (dept_no, dept_name, location)

Employee (emp_no, emp_name, address, salary, designation)

Relation between Department and Employee is **One to Many**.

- Find the name of department whose salary is above 10000.
- Display list of employees having designation 'CLERK'.

b) Consider the following Entities and Relationships and solve the queries :

Donor (donor_no, donor_name, city)

Blood_Donation (bid, blood_group, quantity, date_of_collection)

Relation between Donor and Blood_Donation is **One to Many**.

Constraint : Primary key, blood_group should not be null.

- Display total blood quantity collected on 25th December 2013.
- Display total blood donated by each donor.

c) Consider the following Entities and Relationships and solve the queries :

Bus (bus_no, capacity, depot_no)

Route (rout_no, source, destination, no_of_stations)

Relation between Bus and Route is **Many to One**.

Constraint : Primary key.

- Find out the route details on which buses whose capacity is 20 runs.
- Display number of stations from 'Chinchwad' to 'Katraj'.

d) Consider the following Entities and Relationships and solve the queries :

Musician (mno, mname, addr, phno)

Album (title, copy_right_dae, format)

Relation between Musicians and Album is **One to Many**.

Constraint : Primary key.

- Display all albums composed by 'A R Rehman'.
- Display musician details who have composed Audio album.

e) Consider the following Entities and Relationships & solve the queries :

Book (Book_no, title, author, price, year_published)

Customer (cid, cname, addr)

Relation between Book and Customer is **Many to Many**.

Constraint : Primary key, price should be >0.

- Display author wise details of book.
- Display customer name that has purchased more than 3 books.

Q4) **Attempt any Four of the following :** **[16]**

a) Explain Advantages and disadvantages of Indexed file organization.

b) Write a note on Data Views.

c) Explain the following SQL commands with syntax and example :

i) DROP TABLE ii) UPDATE

d) Consider the following Entities and Relationships and solve the queries :

Employee (emp_id, emp_name, address)

Investment (inv_no, inv_name, inv_date, inv_amount)

Relation between Employee and Investment is **One to Many**.

Constraint : Primary key, inv_amount should be > 0.

- Display employee details who have invested more than 100000.
- Display employee wise total investment amount.

e) Consider the following Entities and Relationships& write queries for following.

Property (pno, desc, area, rate)

Owner (owner_name, addr, phno)

Relation between owner and Property is **One to Many**.

- Display owner details having rate of property less than Rs. 20,00,000.
- Display owner name having maximum no. of properties.

Q5) **Write short notes on any Two of the following :** **[6]**

a) Normalization

b) E-R Model.

c) SQL and Types of SQL

▽▽▽▽

Total No. of Questions : 5]

SEAT No. :

PA-1960

[Total No. of Pages : 4

[5954]-105
F.Y. B.B.A. (CA) (Semester - I)
BUSINESS STATISTICS (CA-105)
(2019 Pattern)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates :

1) ***All questions are compulsory.***
2) ***Figures to the right indicate full marks.***
3) ***Notations & abbreviations have their usual meaning.***
4) ***Simple calculator is allowed.***

Q1) A) Fill in the blanks : **[10]**

i) The degree to which numerical data tend to spread about an average value is called the _____.

ii) ΣX means _____.

iii) Classification method in which upper limit of interval is same as of Lower limit class interval is called _____.

iv) Summary and Presentation of data in tabular form with several non-overlapping classes is referred as _____.

v) _____ diagrams are graphs of the data that are helpful in displaying the relationship between variables.

B) True of False : **[6]**

i) The coefficient of determination can take on a value between –1 & +1.

ii) A series has its mean as 15 and its coefficient of variation as 20, its standard deviation is 10.

iii) If $\bar{X} = 20$, M = 18.5, then Z = 15.5

P.T.O.

Q2) Attempt any four of the following : **[16]**

a)

Marks	10	20	30	40	50
No. of Students	8	10	20	15	7

Computer Arithmetic Mean

b) Calculate the S.D. and C.V. from the following :

14, 8, 11, 10, 13, 16, 5, 9, 12, 2

c) Calculate coefficient of correlation for the following data :

X :	2	3	4	5	6	7	8
Y :	4	7	8	9	10	14	18

d) In a simple study about coffee habit in two towns the following information was received :

Town A : Females were 40%, Total coffee drinkers were 45% and male non-coffee drinkers were 20%

Town B : Males were 55%, Female coffee drinkers were 15% and male non-coffee drinkers were 30% Represent the above data in a tabular form.

e) Compute the mode from the following data :

Size	2	3	4	5	6	7	8	9	10	11	12	13
Frequency	3	8	10	12	16	14	10	8	17	5	4	1

f) Calculate Range and its coefficient from the following data :

53, 46, 18, 16, 75, 84 and 28

Q3) Attempt any four of the following : **[16]**

a) Use a bar diagram to represent the following data :

Year :	1983	1984	1985	1986	1987
Profit of a company (In Lakhs ₹) :	2.5	2.0	1.0	2.8	3.0

b) Arithmetic mean of 50 items is 104. While checking it was noticed that observation 98 was misread as 89. Find the correct value of mean.

c) Computer the quartile deviation and its coefficient from the following data :

100, 24, 14, 105,21, 35,106, 16,100, 72, 68, 103, 61, 90, 20

d) find correlation coefficient between X and Y, given that : $n = 25$ $\Sigma x = 75$, $\Sigma y = 100$, $\Sigma x^2 = 250$, $\Sigma y^2 = 500$, $\Sigma xy = 325$

e) Find Median for the following data :

Wages : (in ₹)	30-40	40-50	50-60	60-70	70-80	80-90	90-100
No. of Persons	1	3	11	21	43	32	9

f) Explain the Degree (strength) of correlation

Q4) Attempt any four of the following : **[16]**

a) Define statistics. Explain the scope of statistics.

b) Find the mid-point and width of each class given the classes below 10, 10-20, 20-40, 40-60, 60-70 above 70

c) Draw a histogram to represent the following frequency distribution

Size of forms : (in hectares)	0-20	20-40	40-60	60-80	80-100
No. of forms :	12	38	16	5	3

d) Write a note on Scatter Diagram.

e) Two workers on the same job show the following results over long period of time :

	Worker 'A'	Worker 'B'
Mean time of completing the job (in minutes)	30	25
Standard Deviation	6	4

i) Which worker appears to be more consistent in the time he requires to complete the job? Why?

ii) Which worker is faster in completing the job? Why?

f) Explain the different parts of statistical table

Q5) Attempt any one of the following : **[6]**

a) From the data given below, find the regression equations :

i) Y on X

ii) X on Y

Marks : (Economics)	25	28	35	32	31	36	29	38	34	32
Marks (Statistics)	43	46	49	41	36	32	31	30	33	39

b) Calculate mean, median and mode from the following data :

Monthly salary : (Less than)	400	600	800	1000	1200	1400	1600
No. of Workers :	0	4	14	33	45	49	50

Total No. of Questions : 7]

SEAT No. :

PA-1961

[Total No. of Pages : 3

[5954]-201

F.Y. B.B.A. (C.A.)

CA-201 : ORGANISATION BEHAVIOR & HUMAN RESOURCE MANAGEMENT

(2019 Pattern) (Semester-II)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Q.1 & Q.2 are compulsory.***
2) ***Solve any 3 questions from Q.3 to Q.7.***
3) ***Figures to the right indicate full marks.***

Q1) Select the correct option: **[16]**

a) The basis of ____ is economic resources with a managerial orientation of money.

i) Autocratic model ii) Custodial model

iii) Collegial model iv) Supportive model

b) Fundamental concepts of OB revolve around _____ .

i) Nature of human beings ii) Working of human beings

iii) Both (i) & (ii) iv) None of above

c) What is the most important purpose of diversity training?

i) Improve communication skills ii) Increase workplace harmony

iii) Increase tolerance iv) Increase cultural knowledge

d) _____ refers to any alteration that occurs in total work environment.

i) Organisational change ii) Organisational stress

iii) Organisational conflict iv) None of the above

e) Which of the following is not job related stress?

i) Role ambiguity ii) Work overload

iii) Work underload iv) None of the above

f) Human Resource management is ___ management function.

i) Strategic ii) Auxiliary

iii) Supporting iv) Ancillary

g) Employees in ____ are mostly treated as an economic man for his services are exchanged for wages or salaries.

i) Human resoursce Management ii) Personnel Management

iii) Financial Management iv) Scientific Management

P.T.O.

h) Employment, Human Resource Development. Compensation, Human Relations, HR effectiveness are all the __ functions of Human Resources Management.

i) Managerial ii) Operational

iii) Financial iv) Technical

i) Handling canteen, medical, transport, legal functions are _____ role of HR Managers.

i) HRD ii) Administrative

iii) Industrial Relation iv) Development

j) ____ is process by which an organization should move from its current man power position to its desired manpower position.

i) Human Resource Planning ii) Human Resource Management

iii) Training iv) All the above

k) ____ involves a collection of job related information.

i) Job description ii) Job analysis

iii) Job designing iv) All the above

l) Employee referral is _____ .

i) an internal source of recruitment

ii) an external source of recruitment

iii) Both (i) & (ii)

iv) None of the above

m) A campus placement is the example of ____ method of recruitment.

i) Direct ii) Indirect

iii) Internet iv) Third party

n) Under _____ method an imaginary situation is created and trainees are asked to act on it.

i) Lectures ii) Case-study

iii) Simulation iv) Job Instruction

o) The methods of training which are adopted for the development of employees away from the field of the job are known as ___ methods.

i) On the job ii) Off-the-job

iii) Both (i) & (ii) iv) None of above

p) The following is (are) the benefit(s) of training.

i) Increase productivity ii) Reduce accidents

iii) Reduce supervision iv) All the above

Q2) Write short notes on (Any four): **[24]**

a) Methods of Recruitment.
b) Internal sources of Recruitment.
c) Autocratic model
d) Effects of stress.
e) Scope of organisational behaviour.
f) Recent Trends in Training.

Q3) What is cultural diversity? Explain the strategies for managing workforce diversity. **[10]**

Q4) Define selection? Explain the steps involved in selection process. **[10]**

Q5) What do you mean by Human Resource Planning? Explain the importance of HR planning? **[10]**

Q6) Define "HRM".Explain the objectives of HRM. **[10]**

Q7) What is "Training & Development"? Explain any four methods of off-the-job training methods. **[10]**

Total No. of Questions : 4]

SEAT No. : ____

PA-1962

[Total No. of Pages : 3

[5954]-202

First Year B.B.A. (C.A.)
CA - 202 : FINANCIAL ACCOUNTING
(CBCS 2019 Pattern) (Semester - II)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates:

1) ***All questions are compulsory.***
2) ***Figures to the right indicate full marks.***
3) ***Use of simple calculator is allowed.***

Q1) A) a) Fill in the blanks. **[5]**

i) _____is an art of recording in the books of accounts in the monetary term.

1) Cost Accounting 2) Bookkeeping
3) Auditing 4) Taxation

ii) The owner of a business is called as_____.

1) Creditors 2) Debtors
3) Employee 4) Proprietor

iii) An account of a person which may be natural person, artificial person or representative group of person is referred as_____.

1) Real account 2) Nominal account
3) Personal 4) Debtors

iv) The amount contributed by the partners in the firm is known as_____.

1) Loan 2) Reserve
3) Surplus 4) Capital

v) Balance Sheet is_____.

1) An account 2) A statement
3) A report 4) A draft

b) State whether the following statements are True or False. **[5]**

i) Voucher is created by an accountant

ii) Goods given as free samples should be debited to advertisement account

iii) The debts which are to be paid in a short period of time are called as current liabilities

iv) Debit what comes in and credit what goes out is a rule of nominal account

v) Cash in an example of fixed asset

P.T.O.

c) Match the following pairs. **[5]**

Group A		Group B	
i)	Fixed Assets	1)	Branch of Accounting
ii)	Accounting Software	2)	Secondary Book
iii)	Cost Accounting	3)	Tally ERP 9.0
iv)	Ledger	4)	Goodwill
v)	Intangible Asset	5)	Plant and Machinery

B) Write short notes (Any Three). **[15]**

a) Subsidiary books.

b) Accounting Software Packages.

c) Role of computers and Financial application.

d) Accounting Process.

e) Importance of Bank Reconciliation Statement.

Q2) Journalise the following transactions in the books of M/s Poonawala, Pune for March 2022. **[12]**

March 2022.

1. Mr. Poonawala started business with cash Rs. 1,50,000.
2. Purchased Machinery for cash Rs.70,000.
8. Bought goods for cash Rs. 20,000 and for credit Rs. 10,000 from KK retail store.
14. Sold goods to JK Brothers Rs. 18,000 and cash sales Rs. 8,000.
18. Withdrew Rs. 20,000 for personal use.
22. Paid Rs. 10,000 to KK retail store.
26. Received Rs. 18,000 from JK Brothers.
30. Paid salaries Rs. 5,000.

Q3) From the following particulars prepare a Bank Reconciliation Statement to find out the causes of difference in two balances as on March 31, 2022 for Star Ltd. **[12]**

		Rs.
a)	Bank Overdraft as per Bank Statement	34,000
b)	Check issued but not encashed during the August	4,400
c)	Dividends on shares collected by banker	4,600
d)	Interest charged by the bank recorded twice in the Cash Book	1,000
e)	Check deposited as per Bank Statement not entered in Cash Book	6,800
f)	Credit side of the Bank column in Cash Book cast short	2,000
g)	Clubs dues paid by bank as per standing instruction not recorded in Cash Book.	2,400
h)	Uncredited check due to outstation.	7,800

Q4) Following is the Trial Balance extracted from books of M/s Sahil as on 31st March 2022. Prepare Trading, Profit and Loss Account for the year ended 31st March 2022 and Balance sheet as on that date. **[16]**

Particulars	Dr.	Particulars	Cr.
Land and Building	1,15,000	Capital	2,00,000
Drawing	68,000	Loans	65,000
Plant and Machinery	75,000	Sales	1,00,000
Furniture and Fixture	17,500	Commission Received	4,500
Purchases	25,000	Sundry Creditors	60,000
Opening stock	25,000	Interest	13,000
Establishment charges	15,000	Provision for bad debts	2,000
Bad debts	1,500		
Wages	3,500		
Insurance	1,000		
Debtors	28,000		
Cash at Bank	15,000		
Cash in Hand	5,000		
Salaries	50,000		
	4,44,500		4,44,500

Adjustments:

a) The closing stock is valued at Rs. 32,000.
b) Outstanding wages are Rs.500.
c) Prepaid insurance is Rs. 400.
d) Depreciation Land and Building and Plant and Machinery @ 10%.
e) Make a provision of 5% on debtors for bad debts.

✡ ✡ ✡

Total No. of Questions : 5]

SEAT No. : ____

PA-1963

[Total No. of Pages : 3

[5954]-203
F. Y B.B.A. (C.A.)
CA-203 : BUSINESS MATHEMATICS
(2019 Pattern) (Semester - II)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates :

1) ***All questions are compulsory.***
2) ***Neat diagram must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***

Q1) A) Fill in the blanks :- **[5 × 2 = 10]**

i) If the interest is calculate on the principal alone, then it is known as _____.

(Simple Interest, Compound Interest, Annuity)

ii) The price at which the articles are sold is called the _____ price.

(Cost, Selling, Purchase)

iii) If A and B matrices are of same order and A+B = B+A, this law is known as _____.

(Commutative law, Associative law, Cramer's law)

iv) The variables that help to decide the outcome are called _____.

(Decision variables, Dependent variables)

v) The column, which is introduced in the transportation matrix to balance the rim requirements is known as _____.

(Key Column, Idle column, Dummy Column)

B) State whether the following statement are true or false **[3 × 2 = 6]**

i) Market value of the share is the current price at which the share is being traded in stock market.

ii) The inverse ratio is the ratio in reverse order of the original ratio.

iii) The zero matrix is not the additive identity for the matrices.

P.T.O.

Q2) Attempt any Four of the following (Four out of Six) : **[4 × 4 = 16]**

a) Find fourth proportional to 6,8,10.

b) Find the simple interest on ₹ 7000 at 50/3% for 9 months.

c) A TV set is sold for ₹ 36,375 at a loss of 15% find the purchase price of the TV set.

d) Find the number whose 30% is 360.

e) What are the components of Linear programming?

f) Define the term matrices?

Q3) Attempt any Four of the following (Four out of Six) : **[4 × 4 = 16]**

a) What is percentage and how it is calculated?

b) Find A + B = B + A When matrices.

$$A = \begin{bmatrix} 1 & 2 \\ 2 & -1 \end{bmatrix}, B = \begin{bmatrix} 3 & 1 \\ -1 & -2 \end{bmatrix}$$

c) What we mean by objective function in LPP.

d) An Amount of ₹ 1,200 is deposited in a bank paying an annual interest rate of 5% compounded yearly. Find the Balance after 2 years.

e) What is transportation model?

f) Find out the total income received from the investment. If Rohit invested ₹ 99,000 in 7½% Stocks at Rs. 81½ plus brokerage of ₹ 1.

Q4) Attempt any four of the following (Four out of six) **[4 × 4 = 16]**

a) At what price will ₹ 4,250 buy shares worth ₹ 5000? (They are ₹ 100 shares).

b) A person invests his money in bank worth ₹ 24,000. It is increasing at the rate of 5% every year. What will be the growth in his investment after 3 years?

c) What is the 20% of 150 ?

d) Alfred buys an old scooter for ₹ 4700 and spend ₹ 800 on its repairs. If he sells the scooter for ₹ 5800, his gain percent is what?

e) Write the steps of LPP formulation

f) Explain the North - west corner method (NWCM) method of TP?

Q5) Attempt any one out of two: **[1 × 6 = 6]**

a) Determine an initial basic feasible solution to the following transportation problem by using VAM method.

	Destination					
Source		D_1	D_2	D_3	D_4	Supply
	A	11	13	17	14	250
	B	16	18	14	10	300
	C	21	24	13	10	400
	Demand	200	225	275	250	

OR

b) Compute the inverse of A :-

Where $A = \begin{bmatrix} 0 & 1 & 2 \\ 1 & 2 & 3 \\ 3 & 1 & 1 \end{bmatrix}$

▽▽▽▽

Total No. of Questions : 5]

SEAT No. : ____

PA-1964

[Total No. of Pages : 3

[5954]-204

B.B.A. (CA)

CA-204: RELATIONAL DATABASE MANAGEMENT SYSTEM

(2019 Pattern) (Semester - II)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates :

1) ***All questions are compulsory.***
2) ***Figures to the right indicate full marks.***

Q1) **Attempt any EIGHT of the following (Out of TEN) :** **[8 × 2 = 16]**

a) Define RDBMS?

b) Define Database?

c) Write syntax for Nested if statement in PLSQL with example.

d) What is PLSQL Block?

e) Define serializability?

f) What is schedule? List types of schedule

g) What is transaction?

h) What is procedure?

i) What is trigger?

j) Define upgrading and downgrading?

P.T.O.

Q2) **Attempt any FOUR of the following (Out of FIVE) :** **[4 × 4 = 16]**

a) Explain difference between DBMS and RDBMS in detail.

b) What is deadlock? Explain methods to prevent deadlock.

c) What is exception handling? Explain predefined exceptions.

d) Explain two-phase locking protocol in detail.

e) Explain RDBMS packages in detail.

Q3) **Attempt any FOUR of the following (Out of FIVE) :** **[4 × 4 = 16]**

a) What is function? Explain with an example.

b) List and explain properties of transaction.

c) Explain % type and % row type with an example.

d) Explain failure classification in detail.

e) What is log? Explain log based recovery.

Q4) **Attempt any FOUR of the following (Out of FIVE) :** **[4 × 4 = 16]**

a) Consider the following relational database.
Customer (cno, cname, city.
Account (ano, acc-type, balance, cno)
Define a trigger that restricts insertion or updation of account having balance less than 100.

b) Consider the following transaction. Give two non-serial schedules that the serializable:

Tl	T2
Read(X)	Read(Z)
X = X + 100	Read(X)
Write (X)	X= X –Z
Read (Y)	Write (X)
Read(Z)	Read(Y)
Y=Y+ Z	Y = Y –100
Write(Y)	Write(Y)

c) Following is the list of events in an interleaved execution of set T1, T2, T3 and T4. Assuming 2PL (Two Phase Lock). Is there a deadlock? If yes, which transactions are involved in deadlock?

Time	Transaction	Code
t_1	T1	Lock(A,X)
t_2	T2	Lock(B,S)
t_3	T3	Lock(A,S)
t_4	T1	Lock(C,X)
t_5	T2	Lock(D,X)
t_6	T1	Lock(D,S)
t_7	T2	Lock(C,S)

d) Consider following relational database
Doctor (dno, dname, dcity)
Hospital (hno, hname, hcity)
Doct-Hosp (dno, hno)
Write a function to return count of number of hospitals located in Mumbai City

e) Consider the following relational database:
Customer (cno, cname, city)
Loan (lno, lamt, no_of_years, cno)
Write a procedure to display total loan amount from Mumbai City.

Q5) **Write a short note on ANY TWO of the following (Out of THREE) :** **[2 × 3 = 6]**

a) Functions in PLSQL.

b) Concurrent Execution.

c) Control Statements in PLSQL.

Total No. of Questions : 5]

SEAT No. :

PA-1965

[Total No. of Pages : 3

[5954]-205
F.Y. B.B.A. (CA) (Semester - II)
CA-205 : WEB TECHNOLOGY (HTML-JS, CSS)
(2019 Pattern)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates :

1) ***All questions are compulsory.***
2) ***Figures to the right indicate full marks.***

Q1) Attempt any Eight of the following (out of Ten) : **[8 × 2 = 16]**

i) List any four tags used in HTML.

ii) Explain javascript array methods.

iii) Define CSS.

iv) Explain HTTP request & response message.

v) Explain <background> tag.

vi) List any two benefits of CSS.

vii) Define website.

viii) What is browser?

ix) Explain <form> tag.

x) Define :

a) FTP

b) IP

Q2) Attempt any four of the following : (out of five) **[4 × 4 = 16]**

i) What is CSS? Explain with its types.

ii) Explain HTML structure.

P.T.O.

iii) Explain the use of <frameset> tag with an example.

iv) Explain ordered and unordered list

v) Explain any 4 tag in HTML with syntax.

Q3) Attempt any four of the following : (out of five) **[4 × 4 = 16]**

i) Explain the working of caching.

ii) Explain concepts of effective web design in details.

iii) Explain client side and server side Image mapping.

iv) Write a Javascript program to accept a number from user and check whether it is Armstrong number or not.

v) Write a Javascript to create an image slider (use array to store image)

Q4) Attempt any four of the following : (Out of Five) **[4 × 4 = 16]**

i) Write a note on FTP.

ii) Explain Dom.

iii) Write a Javascript code to accept a number 'n' from user and display first 'n' terms of Fibonacci series.

iv) Write HTML Code to Create following table.

Course	Fee structure			Year
	Fy	Sy	Ty	
B.A.	20,000	25,000	30,000	2019
B.Com.	15,000	20,000	25,000	2020
B.Sc.	25,000	30,000	35000	2021

v) Write HTML code which generate the following output and display each element of list in different size, color and font

- Coffee
- Tea
  - Black Tea
  - Green Tea
    1) Africa
    2) China

Q5) Attempt any two of the following : (out of three) **[2 × 3 = 6]**

i) Write short note on internet.

ii) Explain embedding Audio, video in HTML.

iii) Explain Date objects in Javascript.

Total No. of Questions : 5]

SEAT No. : ____

PA-1966

[Total No. of Pages : 2

[5954]-301

B.B.A. (CA) (Semester - III)

CA-301 : DIGITAL MARKETING

(2019 Pattern)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates :

1) ***All questions are compulsory.***
2) ***Neat diagrams must be drawn wherever necessary.***

Q1) **Answer the following (Any Eight) :** **[8 × 2 = 16]**

a) What is digital marketing?

b) What is email marketing?

c) Define the term Real Marketing.

d) What is Content Management?

e) Define web design.

f) What is CRM platform?

g) What is Social Media?

h) Define YouTube Analytics.

i) What is Resource Planning?

j) What is Blogging?

P.T.O.

Q2) **Attempt the following (Any Four) :** **[4 × 4 = 16]**

a) Explain the search engine optimization.

b) Describe Digital Marketing channels.

c) Explain the concept SEO optimization.

d) Explain CRM models in detail.

e) Describe Digital Display Marketing.

Q3) **Answer the following (Any Four) :** **[4 × 4 = 16]**

a) How to understand Social Media Marketing?

b) What is Social Media? Explain Blogging in detail.

c) What is Web analytics? Describe the levels.

d) Explain the concept of cost budgeting.

e) Explain MS Expression Web.

Q4) **Answer the following (Any Four) :** **[4 × 4 = 16]**

a) Explain the visual identity of a facebook page.

b) Explain the analyzing visition on Linkdin.

c) What is email marketing? How to keep up with the conversion?

d) Explain the concept Google Ads.

e) How to create business account on YouTube?

Q5) **Write a short note on (Any Two) :** **[2 × 3 = 6]**

a) Optimization of Instagram profile.

b) Social Networking.

c) SWOT Analysis.

Total No. of Questions : 5] **SEAT No. :**

PA-1967 **[Total No. of Pages : 2**

[5954]-302
S.Y. B.B.A. (Computer Application)
CA - 302 : DATA STRUCTURE
(2019 Pattern) (Semester - III)

Time : 2½Hours] ***[Max. Marks : 70***

Instructions to the candidates:

1) ***All questions are compulsory.***
2) ***Figures to the right side indicate full marks.***

Q1) Attempt any EIGHT of the following. **[8×2=16]**

a) How to measure performance of an algorithm?

b) What is polynomial? How is it differ from structure?

c) What is balance factor? How is it calculated?

d) What are Abstract Data types?

e) What is Ancestor of Node?

f) State the types of graph.

g) Differentiate array and structure.

h) What is space and time complexity?

i) What is pointer to pointer?

j) What is spanning tree?

Q2) Attempt any FOUR of the following. **[4×4=16]**

a) Explain Insertion sort technique with an example.

b) What is circular queue? How it is differ from static queue?

c) What is stack? What are the various applications of stack. List operations performed on stack.

d) Explain different types of AVL rotations with an example.

e) Explain various types of Dynamic Memory Allocation functions.

Q3) Attempt any FOUR of the following. **[4×4=16]**

a) Write a function to create and display doubly link list.

b) Write a recursive functions to traverse a tree by using inorder (), preorder () and postorder traversing functions.

P.T.O.

c) Write a function to delete first node from singly linked list.

d) Write a function to reverse a string using stack.

e) Write a 'C' Program for evaluation of polynomial.

Q4) Attempt any FOUR of the following. **[4×4=16]**

a) Construct an AVL tree for following sequencial data:

Jan, Feb, Apr, May, July, Aug, June.

b) Use merge sort technique on following data:

45, 85, 96, 78, 34, 12, 49, 38, 18.

c) Write a 'C' program to creat link list with given number in which data part of each node contains individual digits of the numbers.

d) What is circular queue? Explain it with example.

e) Construct Binary search tree of following data:

RAM, SITA, AMIT, JOEL, IVAN, ASHA

Q5) Attempt any TWO of the following. **[2×3=6]**

a) Define the following terms:

i) Directed graph

ii) Strict binary tree

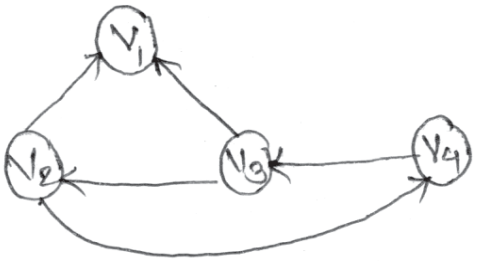
iii) Cyclic graph

b) Convert the following expression into postfix

i) A/B $ CD * E - A *C

ii) (A + B * C -D)/ E $ F

c) What is degree of vertex? Find the indegree and outdegree of following graph of each vertex:



Total No. of Questions : 5] **SEAT No. :**

PA-1968 **[Total No. of Pages : 2**

[5954]-303
S.Y. B.B.A. (Computer Application)
CA - 303 : SOFTWARE ENGINEERING
(2019 CBCS Pattern) (Semester - III)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates:

1) ***All questions are compulsory.***
2) ***Neat diagrams must be drawn wherever necessary.***

Q1) Attempt any EIGHT of the following. **[2×8=16]**

a) What is system?

b) Define software?

c) Define RAD.

d) What is SRS.

e) State the principles of Software Testing?

f) What is software Reengineering?

g) State advantages of Waterfall model.

h) State any two types of coupling.

i) Define an Entity.

j) What is Pseudocode?

Q2) Attempt any four of the following. **[4×4=16]**

a) Explain various types of system.

b) Explain different McCall's quality factors.

c) Explain spiral model in detail.

d) Discuss different fact finding techniques.

e) Differentiate between White - Box and Black-Box Testing.

Q3) Attempt any four of the following. **[4×4=16]**

a) Material is issued to the department by considering whether the Material Requisition Note (MRN) is signed or not. It contains valid items or not and it is given within 8 hours or not. Draw decision table for the above case.

P.T.O.

b) Design a Input screen layout for creating user account on Internet (with personal details, user-id and password, save, cancel commands etc).

c) Draw decision tree for the following case:

A company gives discount on the purchase of goods depending on the sale and duration of payment:

i) 5% discount if order amount > 50,000.

ii) 3% discount if order amount between 25,000 and 50,000

iii) No discount if order amount < 10,000 or payment is not done within 8 days.

d) Design an screen layout for employees salary slip.

e) Draw ER-Diagram for "College Admission System".

Q4) Attempt any Four of the following. **[4×4=16]**

a) Draw first level DFD for Hospital Management system in which the hospital has Inpatient Department (IPD), outpatient Department (OPD) the system maintains patient records and bills of the patient.

b) Identify all entities of online shopping system.

c) Draw context level diagrams for online shopping system.

d) Draw first level DFD for customer Order system.

e) Explain elements of Data flow diagrams?

Q5) Write a short note on any Two of the following. **[3×2=6]**

a) Types of Cohesion

b) Validation and Verfication Testing.

c) Feasibility study.

♦ ♦ ♦

Total No. of Questions: 5]

SEAT No. :

PA-1969

[Total No. of Pages : 2

[5954]-304
Second Year B.B.A. (C.A.)
CA - 304 : ANGULAR JS
(2019 Pattern) (Semester-III)

Time : 3 Hours] ***[Max. Marks : 70***

Instructions to the candidates:

1) ***All questions are compulsory.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***

Q1) Attempt any EIGHT of the following. **[8×2=16]**

a) Wht is SPA?
b) Explain ng-controller directive
c) Write any two features of AngularJS.
d) Explain two-way data binding.
e) What is Controller?
f) Explain $http Services.
g) Explain uppercase filter.
h) What is Dependency Injection?
i) Explain $timeout Service.
j) Explain Customer Validation.

Q2) Attempt any Four of the following. **[4×4=16]**

a) Explain most common directives used in AngularJS.
b) Explain MVC architecture in detail.
c) Explain built-in Services of AngularJS.
d) Write an AngularJS program to create Service for finding factorial of a number.
e) Write an AngularJS program for using $filter serice.

Q3) Attempt any Four of the following: **[4×4=16]**

a) Give difference between AngularJS and Javascript.
b) Explain the ways to implement customer directives in AngularJS.
c) Write advantage of creating Modules.
d) Write a Program that Can show the use of ng-repeot.
e) Write a program to demonstrate use of factory function.

P.T.O.

Q4) Attempt any Four of the following. **[4×4=16]**

a) What is the difference between $Scope and Scope?

b) Write a program to create a Service to calculate are of a circle.

c) Explain life cycle of a Module.

d) Write a Program to display name, qualification and address using MVC architecture.

e) Explain $document service, $logservice and $root service in brief.

Q5) Write short note on any Two of the following. **[2×3=6]**

a) Data binding.

b) Ng new, ng upadate.

c) angular. module.

Total No. of Questions: 5]

SEAT No. : ____

PA-1970

[Total No. of Pages : 2

[5954]-305
B.B.A. (Computer Application)
PHP
(2019 Pattern) (Semester-III) (CA-304)

Time : 2 ½ Hours ***[Max. Marks : 70***

Q1) Attempt any EIGHT of the following (out of Ten) **[8×2=16]**

a) List the types of array.

b) What are different arithmatic operators in PHP?

c) What is abstract class in PHP?

d) Define sticky form.

e) What is validation?

f) What is use of array-slice () in PHP?

g) What are the databases supported by PHP?

h) what is the use of session?

i) Which attribute is used for multiple selections in select tag?

j) What is the purpose of break statement?

Q2) Attempt any Four of the following (out of Five). **[4×4=16]**

a) Explain multidimensional array in PHP with example.

b) Write a PHP Program to check whether given year is leap year or not (use if else)

c) Write a PHP script to define an interface which has methods area () volume (). Define constant PI. Create a class cylinder which implements this interface and calculate area and volume

d) What are the built in functions of string?

e) Write a PHP program to reverse an array

Q3) Attempt any FOUR of the following (out of FIVE) **[4×4=16]**

a) What is variable in PHP? Explain its scope with example.

b) What is the difference between for and for each in PHP?

c) Write a PHP Program to display reverse of a string.

d) How to create cookies? Give an example.

e) Explain passing values by reference with an example.

P.T.O.

Q4) Attempt any four of the following (out of Five) **[4×4=16]**

a) What is array? Explain different types of array in PHP.

b) What is the difference between a while loop and do while loop in PHP.

c) Write a PHP program to find the sum of digit of a given number.

d) Write a PHP program to use multiple checkbox to select hobbies

e) List various MYSQL Queries with their Syntax.

Q5) Write a short note on Any Two of the following (out of Three) **[2×3=6]**

a) Explain advantages of PHP built in functions

b) Explain GET Method

c) List Advantages of PHP.

Total No. of Questions : 5]

SEAT No. : ____

PA-1971

[Total No. of Pages : 2

[5954]-306

S.Y. B.B.A. (C.A.)

CA- 305 : BIG DATA

(2019 CBCS Pattern) (Semester-III)

Time : 2½ Hours] ***[Max. Marks : 70***

Instruction to the candidates:

1) ***All questions are compulsory.***
2) ***Figures to right indicate marks.***

Q1) Attempt any EIGHT of the following. **[16]**

a) What is big data?

b) What is data manipulation?

c) What is data science?

d) What is statistical Inference?

e) Enlist the stages of data science?

f) Define Machine Learning.

g) Define SVM?

h) What is the use of histogram?

i) What is data analysis?

j) What is the use of themes?

Q2) Attempt any FOUR of the following. **[16]**

a) Explain different types of data analytics.

b) Give advantages and Disadvantages of Machine Learning.

c) Explain the process of data analysis.

d) Explain probability distribution modeling.

e) Explain applications of big data.

P.T.O.

Q3) Attempt any FOUR of the following. **[16]**

a) State advantages and disadvantages of SVM.

b) Explain Data frame with example.

c) Explain types of regression models.

d) What is histogram? Explain with example in R.

e) Explain functions included in "dplyr" package

Q4) Attempt any FOUR of the following. **[16]**

a) Explain Naive Bayes with the help of example.

b) What is data visualization? Explain with example in R.

c) Write a R program to accept temperatures in Fahrenheit (F) and print it in Celsius (C).

d) Accept three dimensions length (l), breadth (b) and height (h) of a cuboid and print its volume.

e) Write a R program accept any year as input and check whether the year is a leap year or not.

Q5) Write a short note on Any TWO of the following. **[6]**

a) Tools used in Big Data.

b) Advantages of Big data.

c) Advantages and Disadvantages of EM algorithms.

Total No. of Questions : 5]

SEAT No. : ____

PA-1972

[Total No. of Pages : 2

[5954]-307

S.Y. B.B.A. (Computer Application)

CA-305 : BLOCK CHAIN

(2019 Pattern) (Semester-III)

Time : 2½ Hours] ***[Max. Marks : 70***

Instruction to the candidates:

1) ***All questions are compulsory***
2) ***Figures to right indicate full marks.***

Q1) Attempt any EIGHT of the following (Out of TEN). **[8×2=16]**

a) What is proof of Stake?

b) Define hashing.

c) What is truffle in Ethereum?

d) Define Digital Signature.

e) Define Cryptography.

f) What is currency?

g) What is cryptocurrency?

h) What is smart contract?

i) Define Database.

j) What is fork?

Q2) Attempt any FOUR of the following (Out of FIVE). **[4×4=16]**

a) Explain Components of Blockchain.

b) What is Ethereum network? Explain with diagram.

c) What is DAO? Explain in detail.

d) Explain life cycle of Blockchain.

e) What is Hyperledger Fabric? Give Benefits of Hyperledger Fabric.

P.T.O.

Q3) Attempt any FOUR of the following (Out of FIVE). **[4×4=16]**

a) What is blockchain? Explain its Importance?

b) What is block? Explain its structure diagrammatically.

c) Explain types of network.

d) Explain Actros of Blockchain

e) What is gas? Why it is important in Ethereum?

Q4) Attempt any FOUR of the following (Out of FIVE). **[4×4=16]**

a) Describe DApps in details.

b) With the help of diagram describe EVM.

c) Explain Web3 in details.

d) What is an EVM in blockchain? Explain EVM with example.

e) What are the advantages of Hyperledger Fabric for blockchain networks.

Q5) Write a short note one Any TWO of the following. (Out of THREE). **[2×3=6]**

a) Differentiate between private key and public key.

b) Explain working of smart contracts.

c) Give Limitations of Blockchain.

Total No. of Questions : 5]

SEAT No. : ____

PA-1973

[Total No. of Pages : 2

[5954]-401
S.Y. B.B.A. (C.A.)
CA - 401 : NETWORKING
(2019 Pattern) (CBCS) (Semester - IV)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates :

1) ***All questions are compulsory.***
2) ***Neat diagrams must be drawn wherever necessary.***

Q1) **Attempt any three of the following :** **[3 × 5 = 15]**

a) Define Network Topology? Explain different types of topologies.

b) Explain function of each layer of ISO-OSI reference Model.

c) What is wireless transmission? Explain any two media in detail.

d) Define the bridge? Explain the types of bridge.

Q2) **Attempt any three of the following :** **[3 × 5 = 15]**

a) Define Computer Network? Explain goals of Computer Network.

b) Explain different types of Addresses.

c) Explain propagation methods in detail.

d) Explain Firewall and its Security Features.

Q3) **Attempt any three of the following :** **[3 × 5 = 15]**

a) Draw TCP/IP model and state the function of each layer.

b) Compare connection oriented and connectionless services.

c) What is Router? Explain its components.

d) What is Ethernet? What are it's types? Explain any one in detail.

P.T.O.

Q4) **Attempt any three of the following :** **[3 × 5 = 15]**

a) Explain IEEE standards 802-11 in detail.

b) Compare ISO-OSI reference model and TCP/IP model.

c) What is cryptography? Explain encryption and decryption process.

d) Explain Fiber optic cable in detail.

Q5) **Write notes on (Any Two) :** **[2 × 5 = 10]**

a) Modes of Communication.

b) Bluetooth Architecture.

c) MAC sublayer with it's Frame Format.

d) Copyright.

Total No. of Questions : 5] **SEAT No. :**

PA-1974 **[Total No. of Pages : 3**

[5954]-402
S.Y. B.B.A. (Computer Application)
CA - 402 : OBJECT ORIENTED CONCEPTS THROUGH CPP
(2019 Pattern) (Semester - IV)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates:

1) ***All questions are compulsory.***
2) ***Figures to the right indicate full marks.***

Q1) Attempt any EIGHT of the following (out of TEN). **[2×8=16]**

a) What is Encapsulation?

b) Define the following terms

i) Early Binding

ii) Late Binding

c) What is Inline function?

d) Explain get() and put () function.

e) What is stream?

f) Define Friend function.

g) Explain the use of new opreator, state the syntax.

h) State the need of virtual keyword.

i) State user defined data types in C++.

j) Explain the use of Scope Resolution operator.

Q2) Attempt any FOUR of the following (out of FIVE). **[4×4=16]**

a) List different types of constructor. Explain any one constructor with example.

b) What is function overloading? Explain with suitable example.

c) Describe different types of inheritance.

d) Explain virtual base class with suitable diagram.

e) Describe file manipulators with their syntaxes.

P.T.O.

Q3) Attempt any FOUR of the following (out of FIVE). **[4×4=16]**

a) Write a C++ program to copy contents of one file to another file.

b) Write a program to calculate area and circumference of a circle using inline function.

c) Declare a class of vehicle. Derived classes are two whecler, three wheeler and four wheeler. Display the properties of each type of vehicle using member functions of class.

d) Write a C++ program to use setfile ( ) and setiosflags ( ) manipulator.

e) Write a C++ program to compare two strings using overload operater "==".

Q4) Attempt any FOUR of the following (out of FIVE). **[4×4=16]**

a) Trace the output of the following program and explain it. Assume there is no syntax error.

```
# include <iostream.h>
 int i, j;
 Class sample
{
 Public:
        Sample (int a = 0, int b = 0)
        {
                i = a;
                j = b;
                show ( );
        }
        Void show ( )
        {
        Cout <<j <<" ";
        }
        };
        Void main ( )
        {
                Sample (5, 10);
                Int & x = i;
                int & y = j;

                i++;

        Cout << x - - << " " << ++y;

        }
```

b) Explain try, catch and throw in exception handling.

c) Design C++ class which contain function display ( ). Write a program to count number of times display ( ) function is called (Use static data member)

d) What is Destructor? State the importance of destructor with example.

e) What is tokens in C++? Explain in detail.

Q5) Write a short note on any TWO of the following (out of THREE) **[3×2=6]**

a) Call - by - value and call-by-reference

b) Data abstraction

c) Default Argument

Total No. of Questions : 5] **SEAT No. :**

PA-1975 **[Total No. of Pages : 3**

[5954]-403
S.Y. B.B.A. (Computer Application)
CA - 403 : OPERATING SYSTEM
(2019 Pattern) (Semester - IV)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates:

1) ***All questions are compulsory.***
2) ***Neat diagrams must be drawn wherever necessary.***

Q1) Attempt any Eight of the following. **[2×8=16]**

a) Define the term operating system.

b) Define system program.

c) Which scheduler controls the degree of multiprogramming?

d) What is Turn-Around Time?

e) What is meant by Deadlock?

f) What is demand paging?

g) List any four attributes of files.

h) What do you mean by seek Time in Disk Scheduling.

i) What does FIFO and MFU stand for?

j) Define Rollback?

Q2) Attempt any four of the following. **[4×4=16]**

a) List and explain services provided by the operating system.

b) Explain Process Control Block (PCB) with diagram.

c) Explain 'Dining Philosopher' Synchronization problem.

d) What is Frogmentation? Explain types of its in detail.

e) Describe I/O Hardware with its type of I/O devices.

Q3) Attempt any four of the following. **[4×4=16]**

a) Explain various types of system programs.

b) Explain Indexed Allocation in detail.

P.T.O.

c) The request queue is as follows:

15, 27, 137, 18, 150, 65, 194.

Number of tracks = 0 to 199

Starting position or current head position = 128. Find total head movement by applying SSTF (Shortest Seek Time First) disk scheduling algorithm.

d) List any two types of Multiprocessor.

e) Consider the following set of processes with length of CPU Burst time and arrival time in milliseconds.

Process	Arrival	Time Burst Time
P_1	0	3
P_2	2	6
P_3	4	4
P_4	6	5
P_5	8	2

Calculate turn around time, waiting time, average waiting time and average turn around time using preemptive SJF scheduling algorithm.

Q4) Attempt any Four of the following. **[4×4=16]**

a) Consider the following snapshot of the system.

Process	Allocation				Max				Avaliable			
	A	B	C	D	A	B	C	D	A	B	C	D
P_0	0	0	1	2	0	0	1	2	1	5	2	0
P_1	1	0	0	0	1	7	5	0				
P_2	1	3	5	4	2	3	5	6				
P_3	0	6	3	2	0	6	5	2				
P_4	0	0	1	4	0	6	5	6				

Is the system safe? Justify?

If yes give safe sequence

b) Explain different methods for recovery from deadlock?

c) Consider a reference string 4, 7, 6, 1, 7, 6, 1, 2, 7, 2 the number of frames in the memory is 3. Find out number of page Faults respective to

i) FIFO

ii) LRU

d) Explain advantages and disadvantages of linked allocation methods.

e) Define the term:

i) Logical Address

ii) Physical Address

Q5) Write short note on any Two of the following. **[2×3=6]**

a) What is Interrupts.

b) What is medium term scheduler.

c) Explain semaphores and its types in detail.

♦ ♦ ♦

Total No. of Questions: 5]

SEAT No. :

PA-1976

[Total No. of Pages : 2

[5954]-404
SY B.B.A. (C.A.)
CA - 404 : NODE JS
(2019 Pattern) (Semester-IV)

Time : 2 ½Hours] ***[Max. Marks : 70***

Instructions to the candidates:

1) ***All questions are compulsory.***
2) ***Figures to the right indicate full marks.***

Q1) Answer the following (any Eight): **[8×2=16]**

a) What is the command to initialize node package manager (NPM)? write it's syntax.

b) What is REPL?

c) List any four core modules of node. JS.

d) List any two methods included under path module of node. JS.

e) For which tasks a File System module is used for?

f) Write a command to add dependency "express" using NPM.

g) Write a command to install MYSOL Package by using NPM.

h) Write down steps to handle http requests while creating web server using node. JS.

i) Write any two advantages of node. JS.

j) Write any two functions of Buffer used in node. JS.

Q2) Answer the following (any Four) **[4×4=16]**

a) Write a Program to update table records using node. JS and MySQL database.

b) Explain Node.JS Process Model with the help of diagram.

c) How does Node.JS handles a file request.

d) What is the Purpose of object module experts in node.JS?

e) Explain LC. readfile () method for all Possible ralves of options?

P.T.O.

Q3) Answer the following (any four) **[4×4=16]**

a) Write a Program which uses addlistener ( ) method of Event Emmitter class.

b) Write a short note on NPM.

c) Write a Program to delete table records using node.JS and MySQL database.

d) How do you install Packages locally using NPM. Explain with an example.

e) Compare Traditional web. server model and Node.JS Process model.

Q4) Answer the following (any four) **[4×4=16]**

a) Write a Program to use SoL SELECT very to show data from a table using node. JS and MySoL database.

b) Explain steps to install Node.JS on windows.

c) Write a Program to write to a file in node.JS

d) How to add dependency into Package JS on?

e) Write a Program to calcolate factorial of given number using function.

Q5) Answer the following (any two) **[2×3=6]**

a) Explain the meaning, purpose, steps to execute and output of below program:

```
var http = require ('http');
http. create server (function (req, res){
res. write head (200, {'content - Type' : 'text/htm' });
res. end ('Hello world');
}) listen (8080);
```

b) Explain working of writeHead ( )

c) Explain Inheriting events with suitable example.

Total No. of Questions : 4]

SEAT No. : ____

PA-1977

[Total No. of Pages : 2

[5954]-405

S.Y.B.B.A. (CA)

CA-404 : ADVANCED PHP

(2019 CBCS Pattern) (Semester - IV)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates:

1) ***All questons are compulsory.***
2) ***Draw neat diagram wherever necessary.***

Q1) Attempt any Eight of the following. **[8×2=16]**

a) State the purpose of Extend Keyword.

b) What is Class?

c) What is $_ REQUEST variable?

d) What is Serialization?

e) What is Document object Model in PHP?

f) Describe any two content management system software.

g) What is $_ SERVER variable?

h) State the purpose of Final Keyword?

i) What is meaning of Self Processing form?

j) What is AJAX Script?

Q2) Attempt any Four of the following. **[4×4=16]**

a) Explain features of Joomal/Drupal.

b) What is SOAP? Explain in detail.

c) Explain XML MVC framework.

d) Difference between GET and POST method.

e) How to create object in PHP? Explain with example.

e) Write a simple PHP program which implements AJAX for addition of two numbers.s

P.T.O.

Q3) Attempt any Four of the following. **[4×4=16]**

a) Create a form to accept Customers Details and Display it on Next Page.

b) Write a PHP script to Design a form to accept a number from the user to check whether number is palindrome or not. (Use the concept of self processing page).

c) Write XML script to print the names of the students present in "Student.xml" file.

d) Define a class Employee having private member id, name, salary, dept. Define parametrised constructor. Create object and display details fo employee having maximum salary.

e) Write a simple PHP program which implements AJAX for addition of two numbers.s

Q4) Attempt any Four of the following. **[4×4=16]**

a) Explain the structure of WSDL.

b) Explain XML Parser.

c) Write a PHP script to display server information in table format (Use $_ SERVER).

d) What are the advantages of AJAX?

e) Write a PHP Script to read book. XML and print book details in tabular format using simple XML. (Content of book. XML are (bookcode, bookname, author, year, price).

Q5) Write a short note on any two of the following. **[2×3=6]**

a) Web services communication models.

b) Sticky Forms.

c) Encapsulation.

✡ ✡ ✡

Total No. of Questions : 5]

SEAT No. : ____

PA-1978

[Total No. of Pages : 2

[5954]-501
B.B.A. (C.A.)/B.C.A.
CA-501 : CYBER SECURITY
(2019 Pattern) (Semester - V)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates :

1) ***All questions are compulsory.***
2) ***Neat diagram must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***

Q1) **Attempt any Eight of the following (out of Ten) :** **[8 × 2 = 16]**

a) Define term Cybercrime.

b) What is online fraud?

c) Define term Cyber Security.

d) What is reconnaissance?

e) What is Phishing?

f) Define attack vector?

g) Define denial-of-service (DoS) attack.

h) What is Public-key Certification in Digital Signature?

i) What is Steganography?

j) Define Cyber Terrorism?

Q2) **Attempt any Four of the following (out of Five) :** **[4 × 4 = 16]**

a) Define virus. Discuss the types of viruses.

b) What is Domain Name? Explain with example.

c) What is CIA? Discuss three concept of CIA model.

d) Explain different types of credit card frauds.

e) Explain the rules of Digital Evidence.

P.T.O.

Q3) **Attempt any Four of the following (out of Five) :** **[4 × 4 = 16]**

a) What are the challenges to Indian Law and cybercrime scenario in India?

b) Explain in brief each type of Intellectual Property.

c) What is cyber forensics explain in details?

d) Explain the cyber security real life incident example.

e) What are the consequences of cybercrime and their associated cost?

Q4) **Attempt any Four of the following (out of Five) :** **[4 × 4 = 16]**

a) Why there is need of Computer Forensic?

b) Discuss various password cracking techniques.

c) Discuss different types of active attack and passive attack?

d) Explain how botnets can be used as a fuel to cybercrime.

e) What is SQL injection and what are the different countermeasures to prevent the attack?

Q5) **Write a short note on Any Two of the following. (9 out of Three)** **[2 × 3 = 6]**

a) Hacking.

b) The Indian IT Act.

c) Phishing.

▽▽▽▽

Total No. of Questions : 5]

SEAT No. : ____

PA-1979

[Total No. of Pages : 3

[5954]-502

T.Y.B.B.A. (C.A.)

OBJECT ORIENTED SOFTWARE ENGINEERING

(2019 Pattern) (Semester - V) (CA-502) (CBCS)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates :

1) ***All questions are compulsory.***
2) ***Neat diagram must be drawn whenever necessary.***
3) ***Figures to the right indicate full marks.***

Q1) Attempt any Five of the following : **[5 × 2 = 10]**

a) What is realization?

b) What is interface?

c) What is the use of section 4 in SRS format?

d) Define forking.

e) List any two advantages and disadvantages of prototyping model.

f) Define Generalization.

g) Write down the purpose of the object diagram.

Q2) Attempt any Four of the following : **[4 × 4 = 16]**

a) Explain visibility modes along with well labelled diagram.

b) Draw component diagram for online shopping.

c) Describe the coad and yourdon method in detail.

P.T.O.

d) What is use cases? State include and extend relationship among use cases with sample.

e) How to identify the element of an object model.

Q3) Attempt any Four of the following : **[4 × 4 = 16]**

a) What is package? Explain it with import and export stereotypes.

b) Define Relationship. Explain different kinds of relationship.

c) Define UML. What are the goals of UML?

d) Define Up phases with the help of diagram.

e) Explain generic components of the object oriented design model.

Q4) Attempt any Four of the following : **[4 × 4 = 16]**

a) Draw a collaboration diagram for ATM system.

b) What is meant by Object Oriented Analysis?

c) Define sequence diagram. Explain sequence diagrams notations.

d) Write short note on Type and Roles.

e) Define the following terms :

i) Link.

ii) State.

iii) Branching.

iv) Note.

Q5) Attempt the following : **[12]**

Railway reservation system is a system used for booking tickets over internet. Any customer can book tickets for different trains. Customer can book a ticket only if the tickets are available. Customer searches for available ticket then if the tickets are available he books the tickets by initially filling details in a form.

Tickets can be booked in two ways by i-ticket or by e-ticket booking.

In case of i-ticket booking customer can book the tickets online and the ticket are couriered to particular customer at their address.

But in case of e-ticket booking and cancelling tickets are booked and cancelled online sitting at the home and customer himself has to take print of the ticket but in both the cases amount for ticket are deducted from customers account.

For the cancellation of ticket the customer has to go at reservation office & fill form and ask the clerk to cancel the ticket and refund the amount.

After booking ticket the customer has to checkout by paying fare amount to clerk.

Consider above situation. Draw the following UMLdiagram.

a) Use case diagram.

b) Class diagram.

c) Sequence diagram.

Total No. of Questions : 5]

SEAT No. :

PA-1980

[Total No. of Pages : 2

[5954]-503
T.Y. B.B.A. (Computer Application)
CA 503 : CORE JAVA
(2019 Pattern) (Semester - V)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Neat diagrams must be drawn wherever necessary.***
2) ***Figures to the right indicate full marks.***
3) ***All questions carry equal marks.***
4) ***All questions are compulsory.***

Q1) Attempt any Eight : **[8 × 2 = 16]**

a) What is Java? Why Java is a platform neutral language?

b) What is access specifiers? List them.

c) Define Keyword-Static.

d) Why we set environment variable in Java?

e) Write advantages of Inheritance.

f) Define class and object with one example.

g) What is Swing?

h) When buffered reader is used?

i) What is main difference between exception and error?

j) What is Panel?

Q2) Attempt any four : **[4 × 4 = 16]**

a) What is Super Keyword? Explain the use of super keyword with suitable example.

b) Describe file handling in brief.

c) What is datatype? Explain types of datatypes used in Java.

d) What is interface? Why they are used in Java?

e) Why the main() method in public static? Can we overload it? Can we run java class without main() method?

P.T.O.

Q3) Attempt any four : **[4 × 4 = 16]**

a) Write a java program which accepts student details (Sid, Sname, Saddr) from user and display it on next frame. (Use AWT).

b) Write a package MCA which has one class student. Accept student details through parameterized constructor. Write display() method to display details. Create a main class which will use package and calculate total marks and percentage.

c) Write Java program which accepts string from user, if its length is less than five, then throw user defined exception "Invalid String" otherwise display string in uppercase.

d) Write a Java Program using Applet to create login form.

e) What is recursion is Java? Write a Java Program to final factorial of a given number using recursion.

Q4) Attempt any four : **[4 × 4 = 16]**

a) Explain method overloading and method overriding in detail.

b) Write a applet application in java for designing smiley.

c) Explain in brief delegation event model for handling events.

d) Write a java program to copy the dates from one file into another file.

e) Write a java program to accept' 'n' integers from the user & store them in an ArrayList Collection. Display the elements of ArrayList collection in reverse order.

Q5) Write short note any two : **[2 × 3 = 6]**

a) What is repaint method does?

b) Write constructors of Jtabbed panel.

c) Abstract class.

Total No. of Questions : 5]

SEAT No. : ____

PA-1981

[Total No. of Pages : 2

[5954]-504
B.B.A. (CA)
CA - 504 : MONGO DB
(2019 Pattern) (Semester - V)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates:

1) ***All questions are compulsory.***
2) ***Figures to the right indicate full marks.***
3) ***Draw a neat label diagram whenever necessary.***

Q1) **Answer the following : (Any 8)** **[8 × 2 = 16]**

a) Define the term Replica set.

b) Explain the use of "Mongostat"

c) How scaling is handled in MongoDB

d) What is the importance of "-id" field in a MongoDB.

e) Define the term TTL index.

f) What is the significance of write concern value in *w* field?

g) What is the importance of an index in data.

h) What is MMS backup?

i) Write any two features of MongoDB.

j) Write syntax of update command.

Q2) **Solve the following : (Any 4)** **[4 × 4 = 16]**

a) Differentiate between core server and MongoDB shell in detail.

b) Explain Why MongoDB is preferred over RDBMs in some applications.

c) Explain the pattern matching operators used in MongoDB with suitable example.

d) Write on the importance of database profiling.

e) Explain the different applications of graph database.

P.T.O.

Q3) **Solve the following : (Any 4)** **[4 × 4 = 16]**

a) Explain the document data model of MongoDB.

b) Write on how write queries are handled in replicated environment.

c) Explain the aggregation framework in brief.

d) Explain the concept of "2d sphere" index with suitable example.

e) What is page fault in MongoDB.

Q4) **Solve the following :** **[8 × 2 = 16]**

a) Create a collection "Online Course".

b) Create a new document in "Online Course" collection having ID = 02.

c) Write a command to show the details of "Online Course".

d) Show the details of "Online Course" by Find command.

e) Retrieve the document from "Online course" by find one command.

f) Display the details of "Online course" whose fee is greater than 20,000.

g) Display ID, coursename, Fee, use" Pretty course".

h) Display the details of course having fees 20,000 and duration 6 months.

Q5) **Solve the following : (Any 2)** **[2 × 3 = 6]**

a) Explain the MongoDB CRUD CONCERNS.

b) Explain the various types of NOSQL database.

c) Explain the Map-Reduce function with suitable example.

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Total No. of Questions : 5]

SEAT No. : ____

PA-1982

[Total No. of Pages : 2

[5954]-505
T.Y. B.B.A. (CA)
CA - 504 :PYTHON
(2019 Pattern) (Semester - V)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates:

1) ***All questions are compulsory.***
2) ***Figures to the right indicate full marks.***

Q1) Attempt any eight of the following questions. **[8×2=16]**

a) List out special operators in Python?

b) Explain any two tuple operations with an example.

c) What is the use of '+' and '*' operators on tuples?

d) What is the use of random() in random module?

e) What is the syntax of constructor in Python?

f) What is the use of try - finally block?

g) List out any 5 button options in Python?

h) How is grid() geometry management method used in tkinter?

i) What are advantages of Pandas?

j) State the uses of tensor flow.

Q2) Attempt any four of the following questions. **[4×4=16]**

a) Explain function Arguments in detail?

b) Explain any three widgets in tkinter in brief.

c) Explain IS-A Relationship and Has - A relationship with example?

d) Write a python program to create a class circle and compute the Area and the circumferences of the circle. (Use parametrized constructor).

e) Write a python script using class to reverse a string word by word?

P.T.O.

Q3) Attempt any four of the following questions. **[4×4=16]**

a) What is Pandas? Explain features and advantages of Pandas.

b) Write in brief about anonymous functions.

c) Explain math built-in-module with examples?

d) Write a python class to accept a string and number 'n' from user and display 'n' repetition of strings by overloading *operator.

e) Write python GUI program to generate a random password with upper and lower case letters.

Q4) Attempt any four of the following questions. **[4×4=16]**

a) Explain Exception handling in python with example?

b) Explain methods for geometry management in tkinter with examples?

c) Explain functions to delete elements in Dictionary?

d) Write a python program to accept string and remove the characters which have odd index values of given string using user defined function.

e) Write a python program to swap the value of two variables.

Q5) Write a short note on any two of the following. **[2×3=6]**

a) NumPy

b) Slicing dictionaries.

c) Raise statement.

Total No. of Questions : 5]

SEAT No. :

PA-1983

[Total No. of Pages : 2

[5954]-601

T.Y.B.B.A. (C.A.)

RECENT TRENDS IN INFORMATION TECHNOLOGY

(2019 Pattern) (Semester - VI) (CA-601)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates :

1) ***Questions : Total Number of Questions are 5 (Five).***
2) ***Total Marks assigned: 70***
3) ***Time assigned: 2½ Hours.***

Q1) **Attempt any EIGHT of the following (Out of TEN) :** **[8 × 2 = 16]**

a) What is artificial intelligence?

b) Explain component of spark.

c) What is data mart?

d) List any two applications of data warehouse.

e) Define OLTP.

f) Define ETL tools.

g) Define Data mining.

h) What is a Ridge in artificial intelligence?

i) What is natural language processing?

j) Define Meta data.

Q2) **Attempt any FOUR of the following (Out of FIVE) :** **[4 × 4 = 16]**

a) Describe the Architecture of data warehouse.

b) Explain briefly the various components of spark.

c) Explain the three important artificial intelligence techniques.

P.T.O.

d) What are the disadvantages of Depth First Search?

e) What are the difference between OLTP and OLAP?

Q3) **Attempt any FOUR of the following (Out of FIVE) : [4 × 4 = 16]**

a) Explain the various search and control strategies in artificial intelligence.

b) Describe technique of data mining.

c) Explain any four uses of data warehouse.

d) What is the philosophy of artificial intelligence?

e) Write down the steps of KDD process.

Q4) **Attempt any FOUR of the following (Out of FIVE) : [4 × 4 = 16]**

a) What is a heuristic function?

b) What is multidimensional data model? Explain.

c) Define data cleaning. Describe various method of data cleaning.

d) Explain briefly with solution Missionaries and Cannibals Problem Statement.

e) Explain Graph mining in brief

Q5) **Write a short note on Any TWO of the following (Out of THREE) : [2 × 3 = 6]**

a) State the 'Water Jug Problem' in artificial intelligence with the help of diagrams and propose a solution to the problem.

b) Data mining task.

c) ROLAP and HOLAP.

Total No. of Questions : 5]

SEAT No. : ____

PA-1984

[Total No. of Pages : 2

[5954]-602

B.B.A. (C.A.)

CA-602 : Software Testing

(2019 Pattern) (Semester - VI)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates :

1) ***All questions are compulsory.***
2) ***Neat diagram must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***

Q1) Attempt any EIGHT of the following (out of TEN) : **[8 × 2 = 16]**

a) What is Software Testing?

b) What is Static testing?

c) State the advantages of manual testing.

d) What are formulae for calculating Cyclomatic complexity?

e) What is Gray-box testing?

f) Define validation Testing.

g) What is Debugging?

h) Explain terms- Error, Fault and Failure.

i) Define regression testing.

j) What is software metric?

Q2) Attempt any FOUR of the following (out of FIVE) : **[4 × 4 = 16]**

a) Write difference between verification and validation.

b) Explain Software testing life cycle with diagram.

c) Explain Boundary-Value analysis in details.

d) Explain Acceptance testing in details.

e) Explain Test Case Design along with example.

P.T.O.

Q3) Attempt any FOUR of the following (out of FIVE) : **[4 × 4 = 16]**

a) Explain any four testing principles in detail.

b) Explain white box testing and its techniques.

c) Explain Sandwich and Big-Bang approach of Integration testing.

d) Explain load and Smoke testing in detail.

e) Write difference between Static and Dynamic testing.

Q4) Attempt any FOUR of the following (out of FIVE) : **[4 × 4 = 16]**

a) Explain test case design for the login process.

b) Stub and Driver concept in Unit testing.

c) Explain GUI testing in details.

d) What is difference between client/server and web-Based testing?

e) Calculate the cyclometric complexity of a code which accepts 3 integer values and print the highest and lowest value.

Q5) Write a short note on Any TWO of the following (out of THREE) : **[2 × 3 = 6]**

a) Testing for Real-Time system.

b) Stub and Driver concept in Unit testing.

c) Load Runner

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Total No. of Questions : 5]

SEAT No. :

PA-1985

[Total No. of Pages : 2

[5954]-603
T.Y. B.B.A. (CA)
CA - 603 : ADVANCED JAVA
(2019 Pattern) (Semester - VI)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***All questions are compulsory.***
2) ***Figures to the right indicate full marks.***

Q1) Answer the following (any eight) : **[8×2=16]**

a) Write down 2 methods of connection interface.

b) What is sleep() method in multithreading.

c) What is the method to set the thread priority.

d) Write down 2 classes used in socket programming.

e) What is IP address.

f) What is doGet () method of servlet?

g) What are the parameters of service() method of servlet.

h) What is JSP?

i) What is Hibernate?

j) What is getConnection method?

Q2) Attempt any four of the following. **[4×4=16]**

a) What is statement? Explain the types of statements in JDBC.

b) Explain thread life cycle with diagram.

c) What are the implicit objects in JSP. Explain any 4.

d) Write down the difference between doGet() and doPost()method.

e) Write a java program to count number of records in a table.

P.T.O.

Q3) Attempt any four of the following. **[4×4=16]**

a) Explain Architecture of libernate.

b) What is Result set interface in JDBC? Explain methods in Resultset interface.

c) Explain JSP life cycle with diagram.

d) Write a java program in to print from 100 to 1. (use sleep() method)

e) Write a java program to create table student with attributes Rno, Sname, Per.

Q4) Attempt any four of the following. **[4×4=16]**

a) What are the states of the object in hibernate?

b) What is session tracking? What are the different ways of session tracking in servlet.

c) What is thread Priority? How to set the thread priorities?

d) Write a JSP application to accept a user name and greet the user.

e) Write a java program to display IP address of a machine.

Q5) Write a short note on any two of the following. **[2×3=6]**

a) Connection interface.

b) Runnable interface.

c) Thread synchronization.

Total No. of Questions : 5]

SEAT No. : ____

PA-1986

[Total No. of Pages : 2

[5954]-604

T.Y. B.B.A. (CA)

CA-604 : ANDROID PROGRAMMING

(2019 Pattern) (CBCS) (Semester - VI)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates :

1) ***All questions are compulsory.***
2) ***Draw neat diagrams wherever necessary.***

Q1) **Answer the following questions (Any 8) :** **[8 × 2 = 16]**

a) What is Android?

b) Enlist android versions.

c) Define user interface.

d) What is Date Picker Dialog?

e) Describe Array Adapter.

f) What *ax* the layers present in the android architecture?

g) What is cursor?

h) What is Toast?

i) What is Android ISON?

j) What is Text Fields?

P.T.O.

Q2) **Attempt the following (Any 4) :** **[4 × 4 = 16]**

a) Describe activity Life cycle.

b) What is spinner? How to create it? Explain with Example.

c) How to create database in SQLite? Explain with Example.

d) Define Asyntask? How it works? Explain with Example.

e) Describe Bounded and Unbounded service in detail.

Q3) **Answer the following (Any 4) :** **[4 × 4 = 16]**

a) Create linear layout for student registration page in Android with its component properties.

b) Create an Android application that demonstrate Time Picker.

c) Write a program to create the custom dialog in Android.

d) Write a program to implement map in Android.

e) Create an Android App with login screen on successful login, gives message go to next activity [Without using Database and use Table layout].

Q4) **Answer the following (Any 4) :** **[4 × 4 = 16]**

a) What is Dialog Box? Explain with example.

b) Discuss about views and view groups.

c) Create a simple application, which read a positive number from the user and display it factorial value in another activity.

d) What is Content Providers? Explain with example.

e) Develop a simple calculator using table layout.

Q5) **Write a short note of the following (Any 2) :** **[2 × 3 = 6]**

a) List view.

b) Google Maps.

c) Intent.

Total No. of Questions : 5]

SEAT No. : ____

PA-1987

[Total No. of Pages : 2

[5954]-605

B.B.A. (Computer Application)

CA - 604 : DOT NET FRAMEWORK

(2019 Pattern) (Semester - VI)

Time : 2½ Hours] ***[Max. Marks : 70***

Instructions to the candidates :

1) ***All questions are compulsory.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***

Q1) **Attempt any Eight of the following (out of Ten) :** **[8 × 2 = 16]**

a) What is CTS?

b) State any two advantages of .Net.

c) What is Event Driven Programming?

d) Explain difference between menu and popup menu in .Net.

e) List any two properties of Radio Button Control.

f) What do you mean by value type and Reference type?

g) What is boxing in C#?

h) What is mean by ADO.Net?

i) Enlist any four data types used in .Net?

j) What is use of 'this' keyword in C#?

Q2) **Attempt any Four of the following (out of Five) :** **[4 × 4 = 16]**

a) Explain ASP .NET page life cycle in detail.

b) What are the classes in ADO.Net. Explain in detail.

c) How to create menus in VB.Net?

d) Enlist and explain various objectives of .Net frameworks.

e) State and explain various statements used in VB.Net.

P.T.O.

Q3) **Attempt any Four of the following (out of Five) :** **[4 × 4 = 16]**

a) Write a program in C# for multiplication of two numbers.

b) Write a program in C# to calculate area of a square.

c) Write a VB .NET program to check given number is palindrome or not.

d) Write a VB.NET program to print Yesterday's date on screen.

e) Write a VB.NET program to display Studentid. Student Name and student course and student fees.

Q4) **Attempt any Four of the following (out of Five) :** **[4 × 4 = 16]**

a) What are the HTML controls? Explain.

b) Write steps to connect to database using ADO.Net.

c) Explain Common Type Systems (CTS) and Common Language Specification (CLS).

d) Write a program to show list of doctors visiting to "Sahyadri Multispecialty Hospital".

e) Write a program to find prime numbers bet^{n} 2 to 20.

Q5) **Write a short note on Any Two of the following. (out of Three)** **[2 × 3 = 6]**

a) Inheritance.

b) ASP.Net server controls.

c) Constructor and Destructor.

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