Code No. 1246A

FACULTY OF BUSINESS MANAGEMENT
M.B.A. – IV SEMESTER REGULAR/BACKLOG EXAMINATIONS, JULY-2021
RISK MANGEMENT
PAPER – VI (a)

Time: 2 hours] [Max. Marks: 70

Answer any **FIVE** from the following questions in not more than **FOUR** pages each: (5x14=70)

1. "Insurance is a dual application of law of large numbers" – Discuss.
2. What are the objectives of Risk management? Discuss the significance of risk management in MNCs.
3. Give a detailed note on the process of risk assessment limitations.
4. What is Risk Financing? Discuss various risk financing techniques in detail.
5. What is Insurance? Discuss the history and growth of insurance industry.
6. Discuss the role and functions of IRDA in controlling the insurance companies in India.
7. Discuss the features and classification of Insurance in detail.
8. What is re-insurance? Explain various types of re-insurance methods in India.
9. Explain the losses from risk and various methods for measuring the pure risk with one example.
10. A fire occurred on 15th December, 2011 in the premises of D Co. Ltd. From the following figures, calculate the amount of claim to be lodged with the insurance company for loss of stock:

Stock at cost as on 01.04.2010	Rs. 2,00,000
Stock at cost as on 01.04.2012	Rs. 3,00,000
Purchases for the year ended 31.03.2011	Rs. 4,00,000
Purchases from 01.04.2011 to 12.12.2011	Rs. 8,80,000
Sales for the year ended 31.03.2011	Rs. 6,00,000
Sales from 01.04.2011 to 15.12. 2011	Rs. 10, 50,000

During the accounting year 2011-2012, cost of purchses rose by 10% above the previous year's levels while selling prices went up by 5%.
The value of stock salvaged was Rs. 20,000.

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Code No. 1246B

FACULTY OF BUSINESS MANAGEMENT
M.B.A. – IV SEMESTER REGULAR/BACKLOG EXAMINATIONS, JULY- 2021
RETAIL MANAGEMENT
PAPER – VI (b)

Time: 2 hours] [Max. Marks: 70

Answer any **FIVE** from the following questions in not more than **FOUR** pages each: (5x14=70)

1. What is retailing? Explain the services of a retailer.
2. Describe the challenges faced by a retailer in the present market conditions.
3. Explain various theories of retail development in brief.
4. Explain different types of retail business formats.
5. What is consumer buying decision? Explain the factors influencing the consumer decision process.
6. How has the Indian consumer changed in the present day technological world? What are the challenges that a consumer is facing at present?
7. What are the factors to be considered by a retailer while choosing a location for a retail store?
8. What is retail merchandising? Describe the roles and responsibilities of merchandiser.
9. Explain the market entry strategies for International Business.
10. Give a brief note on WAL-MART and CARREFOUR.

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Code No. 1246C

FACULTY BUSINESS MANAGEMENT
M.B.A. IV – SEMESTER REGULAR/BACKLOG EXAMINATIONS, JULY-2021
TRAINING AND DEVELOPMENT
PAPER – VI (c)

Time: 2 hours] [Max. Marks: 70

Answer any **FIVE** from the following questions in not more than **FOUR** pages each: (5x14=70)

1. Define Training? What are the functions and benefits of Training?
2. Differentiate between Training and Development. Explain Training process in detail.
3. "Choice of a Training method is matter of experience, competence and judgment of the trainer". Discuss
4. What factors are to be considered in the selection of Training Methods?
5. Discuss the various approaches to Training Evaluation.
6. Discuss the reasons for the failure of evaluation of Training Programmes.
7. What are the steps in action research in Training?
8. Explain how the effectiveness of training programmes can be evaluated.
9. Discuss in detail the importance of management games. Give in detail the summary to two management games.
10. Discuss some of the emerging trends pertinent with regard to training and development in India giving suitable examples.

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5022-11-672-007

Code No.8/25/MBA/4.4b/R&BL

FACULTY OF COMMERCE & BUSINESS MANAGEMENT
MBA–IV SEMESTER REGULAR/BACKLOG EXAMINATIONS, MAY 2013

FINANCIAL DERIVATIVES

PAPER-IV(b)

Time: 3 hours] [Max. Marks: 70

Section –A

(5x3=15)

Answer the following questions in not more than **ONE** page each:

1. Commodity swap.
2. Trading mechanism of futures.
3. Option Vega.
4. Short call.
5. Assumptions of Black and scholar option pricing model.

Section –B

(5x8=40)

Answer the following questions in not more than **FOUR** pages each:

6. a) What are the types of financial derivatives. Enumerate their features. How is the derivatives market regulated in India?

(OR)

b) Distinguish between stock derivatives, commodity derivatives and currency derivatives. How do they enable an investor to hedge risk?

7. a) Differentiate between a forward contract and a futures contract.

(OR)

b) Calculate Forward price from the following data:
i) A forward contract is entered into to purchase a coupon (interest) bearing.
ii) Current price of Bond = Rs. 10,000/-
iii) Date of Forward contract = 1st Jan 2011.
Date of Maturity = 31st Dec 2011
iv) Coupon (interest) payments
on 30-6-2011 (after 6 months) = Rs. 500
on 31-12-2011 (after one year) = Rs. 500.
v) Risk free interest rates (continuously impounded)
10% p.a. for six months
12% p.a. for one year.

8. a) Distinguish between i) call option and a put option ii) American option and European option iii) In the money, at the money, and out of the money option.

(OR)

b) Describe the hedging strategies using options.

9. a) The current market price of a company share is Rs. 20/-. It can be either Rs. 22/- or Rs. 18/- at the end of three (3) months. An investor buy a call option of share with strike price of Rs. 21/-. The rate of interest is 12% p.a. Analysis the 2 strategies of buying a call and buy-borrow and sell, and determine the value as per the Binomial option pricing model.

(OR)

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May - 2013

b) What are the determinants of the price of a call option and a put option? What is put-call parity?

10. a) Differentiate between interest rate swaps, equity index swaps, commodity swaps and currency swaps.

(OR)

b) Trace the evolution of swaps. How are swaps used to mitigate risk?

Section – C

(15 Marks)

Case Study:

Compute a call option price by applying the Black Scholes option pricing model from the following information:

Current stock price	:	Rs. 47
Exercise Price	:	Rs. 45
Expected price volatility	:	0.25
Time period to expiration	:	183 days
Risk free interest rate	:	10%

Question:

1. If the market value of the call option is less than Rs. 8/-. What do you suggest?

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5022-13-672-028.

Code No. 1244b

FACULTY OF BUSINESS MANAGEMENT

M.B.A. – IV SEMESTER REGULAR/BACKLOG EXAMINATIONS, APRIL 2015

FINANCIAL DERIVATIVES

PAPER – IVb

Time: 3 hours] [Max. Marks: 70

Note: Answer all the following questions from Section – A, B and C

Section – A

Answer the following questions in not more than **ONE** page each: (5x3=15)

1. Derivatives.
2. Marking to market.
3. Call option Vs Put option
4. Binominal Option Pricing Model
5. Currency swaps

Section – B

Answer the following questions in not more than **FOUR** pages each: (5x8=40)

6. a) Explain the evolution and significance of Derivatives in India.

(OR)

b) Describe the types of Financial Derivatives.

7. a) Explain the specification of futures contracts.

(OR)

b) Security of XYZ Ltd trades in the spot market at Rs.1150. Money can be invested at 11% p.a. What is the fair value of a one – month futures contract on XYZ? What would be the answer if dividend paid in Rs.80?

8. a) Define an option. Explain the types of options.

(OR)

b) Explain two Hedging strategies using options.

9. a) Explain the factors that influence the option price.

(OR)

b) The stock price of XYZ Ltd changes only once a month; either it goes up by 20% or it falls by 16.7%, its price now is Rs.40; the interest rate is 12.7% per year.

What is the value of a one – month call option and put option with an exercise price of Rs.40.

10. a) Explain the major types of swaps.

(OR)

b) Describe how swaps can be used to hedge currency risk.

Section – C

(1x15=15)

Consider a three month call option of ABC Ltd's stock with an exercise price of Rs.45. If ABC is currently selling at Rs.50 and the risk free interest rate is 5%, what will be the price of the option using Black-Sholes model if standard deviation is 40%.

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Code No. 1244b

FACULTY OF BUSINESS MANAGEMENT

M.B.A. – IV SEMESTER REGULAR/BACKLOG EXAMINATIONS, MAY 2017

FINANCIAL DERIVATIVES

PAPER – IVb

Time: 3 hours] [Max. Marks: 70

Note: Answer all the following questions from Section – A, B and C

Section – A

Answer the following questions in not more than **ONE** page each: (5x3=15)

1. Financial derivatives
2. Types of Futures
3. Forward contract
4. American Vs. European Option
5. Currency swaps

Section – B

Answer the following questions in not more than **FOUR** pages each: (5x8=40)

6. a) Explain the functions of Derivatives market.

   (OR)

   b) Give an overview of the Derivatives markets in India.

7. a) Differentiate between forward and futures.

   (OR)

   b) ABC ltd., is trading at Rs.900. calculate its 1year futures price if dividend paid is Rs.40 at the end of half year and year. If the risk free rate with continuous compounding is 10% per annum.

8. a) Differentiate between Options and Futures.

   (OR)

   b) Explain the types of options.

9. a) Assume a put option with strike price Rs.110 currently trading at Rs.100 and expiring in one year. Annual risk free rate is 5%. Price is expected to increase by 20% and decrease by 15% for every six months. Compute the Value of option.

   (OR)

   b) Describe the factors that influence option price.

10. a) Discuss about various types of swaps.

    (OR)

    b) A manufacturing company embarks on a project for which it borrows USD 4 million working capital on a floating interest rate basis, payable quarterly for two years. Since the treasurer of the company felt that the floating rate payment will involve serious risks, he decides to enter into a swap with a bank and convert the same into a fixed rate loan. The bank swaps the floating rate payments into a fixed rate at 12%. Present the cash flows if the floating rate is as follows:

Quarter	Floating rate (%)
1	12.25
2	12.25
3	12.25
4	12
5	12
6	12
7	11.75
8	11.75

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Section – C (1x15=15)

A speculator is considering the purchase of five three-month Japanese yen call options with a striking price of 96 cents per 100 yen. The premium is 1.35 cents per 100 yen. The spot price is 95.28 cents per 100 yen and the 90-day forward rate is 95.71 cents. The speculator believes the yen will appreciate to $1.00 per 100 yen over the next three months. As the speculator's assistant, you have been asked to preparer the following:

1. The speculator's profit if the yen appreciates to $1.00/100 yen.
2. The speculator's profit if the yen only appreciates to the forward rate.
3. The future spot price at which the speculator will get only break even.

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Code No.8/25/MBA/4.4(c)/R&BL

FACULTY OF COMMERCE & BUSINESS MANAGEMENT
MBA–IV SEMESTER REGULAR/BACKLOG EXAMINATIONS, MAY 2013
PERFORMANCE APPRAISAL & MANAGEMENT

PAPER-IV(c)

Time: 3 hours] [Max. Marks: 70

Section –A (5x3=15)

Answer the following questions in not more than **ONE** page each:

1. Performance Planning
2. Performance Measurement
3. Performance Audit
4. Performance Management Cycle
5. PMS Data

Section –B (5x8=40)

Answer the following questions in not more than **FOUR** pages each:

6. a) What is 'Performance Appraisal' (PA)? What are the main issues and concerns involved in PA? Elaborate on them.

   (OR)

   b) List and explain the various approaches to PA that you generally come across in Indian Corporates and offer your critical comments on them.

7. a) How are performance measures generally classified? Write a brief note on all those measures.

   (OR)

   b) What is 'organizational performance'? Detail the informational needs of any one approach for measuring organizational performance?

8. a) What is 360- degree performance Appraisal method? What are the advantages and disadvantages of it?

   (OR)

   b) What are errors in PA? What are the impacts of such errors on PA exercises? What measures do you suggest to minimize such errors?

9. a) What is the difference between Performance Appraisal Systems and Performance Management Systems (PMS)

   (OR)

   b) How are the human resource strategy of an organization and its performance related? Examine their linkage in greater detail.

10. a) How do you design a realistic model for Performance Management? How can we use PMS data for HR decisions and performance improvement?

    (OR)

    b) What policy and strategy initiatives do you suggest for improving HR performance in the context of PMS?

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Section – C

(15 Marks)

Case Study:

Techno soft is an IT company. It was enjoying good reputation, huge client base and high market share till year 2007. The MNC had profit of $ 1.3 billion in financial year 2007-08. It was having 15000 employees globally out of which 4,000 were working in India only. Employees were paid handsomely and well taken care by organization. Employees were provided excellent career opportunities. Company won many awards for its employee friendly practices. Most of the employees of Techno-soft were working in the company from minimum 3 to maximum 30 years. Employees were very much committed to Techno soft.

Everything was smoothly happening when economic slowdown hit major economies over the world. As Techno-soft was having its operation in many countries, it lost on huge number of client base. Company started to loose profit from first quarter of financial year 2008-09. Management of Techno-soft became concerned about increasing loss and made strategies to reduce the cost. The top management notified HR department to cut the work force as soon as possible and cut the cost on employee related issues. HR department also did not think on long term basis and started giving pink slip to the employees without filtering talented employees and without knowing their worth to the company. At the end of the FY 2008-09 Techno-soft was having only 1300 employees in India. Remaining employees also started feeling insecurity regarding the job. Their productivity level came down as work load was high and they were working under pressure. Employees who were shown pink slip were now negative about the company.

Good days came back when the global market started to show improvement from the mid of year 2009. Techno-soft again got new assignments and projects. Those projects were demanding highly capable people. HR department of techno-soft contacted the old employees for recruitment. But now those employees were also working somewhere else and they were not willing to come back to the company which did not value their contribution in the success of the organization. So Techno-soft had to look at other resources for recruitment. Techno-soft had to invest huge amount of money and time in the process of recruitment. But this huge investment was not giving proper returns on investment to the company as huge lay off had created bad image of Techno-soft. Now only one day left for recruitment process to be over and Assistant Manager HR, Rita was not very optimistic about getting highly talented employees as they were having earlier.

Questions:

1. What went wrong at Techno-soft? What is the main issue of concern in the case?
2. What should have been done by Techno-soft to appraise the performance of the employees and retain them?
3. Put yourself at the place of Rita and suggest the ways to fix the problem.

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Code No. 1244c

FACULTY OF BUSINESS MANAGEMENT

M.B.A. – IV SEMESTER REGULAR/BACKLOG EXAMINATIONS, MAY 2017

PERFORMANCE APPRAISAL AND MANAGEMENT

PAPER – IVc

Time: 3 hours] [Max. Marks: 70

Note: Answer all the following questions from Section – A, B and C

Section – A

Answer the following questions in not more than **ONE** page each: (5x3=15)

1. Define Performance Appraisal.
2. Classification of Performs Measure.
3. Performance Review and feedback.
4. KPA'S.
5. Performance Management Systems.

Section – B

Answer the following questions in not more than **FOUR** pages each: (5x8=40)

6. a) Explain the objectives, uses and benefits of performance Appraisal.

   (OR)

   b) What do you mean by Re-engineering performance Appraisal? Discuss the issues an concerns of it.

7. a) How do you measure the organizational performance? Explain one Approach to measure organizational performance.

   (OR)

   b) What is Measurement Scale System? Explain the classification of performance measure?

8. a) What are the various methods of Performance Appraisal. Elaborate one of the methods?

   (OR)

   b) Explain the legal issues involved in measuring the performer Appraisal.

9. a) Enumerate the linkage between the human resources strategy and organizational perform.

   (OR)

   b) Explain the Performance Management Cycle with the help of diagram.

10. a) How do you bring Performance improvement using PMS data for HR-Decisions.

    (OR)

    b) Explain the Practices of PMS in India and other Asian Countries.

Section – C (1x15=15)

There will be a paper of case studies for external students. The paper will be set for 80 marks to be converted to 100 marks. In the question paper 04 cases are given. It will be covered, each carrying 20 marks. Note: The paper of case studies will be offered only by external students only. CASE No.1: 'X' Limited of India, is the leading company, in manufacturing and distributing computers throughout the country. The company obtained the 'Internet Vendor's website' in United States of America. The server is located in United States of America. The website is mainly used for identifying the customers and selling computers through the globe. A buyer from any part of the world can go through the details of

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Computers on the website, and decide which type of computers should be bought. After having decided, the buyer can place an order for computer by visiting the website and by providing the information requested to enter the transaction. At the same time the buyer's authorization and credit card number is routed on the digital highway to the bank. After closing the deal the digital information will generate physical distribution order to transport the computer to the address of the buyer. The buyer acknowledges the physical delivery of the computers. You are required to discuss the issue as to

Questions:

i) Does the server constitute a place of business?

ii) What would happen if the vendor's server is in the state of the buyer?

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Code No.8/25/MBA/4.6/R&BL

FACULTY OF BUSINESS MANAGEMENT
MBA–IV SEMESTER REGULAR/BACKLOG EXAMINATIONS, MAY 2013

FINANCIAL INSTITUTIONS & MARKETS

PAPER-VI

Time : 3 hours] [Max. Marks: 70

Section –A (5x3=15)

Answer the following questions in not more than **ONE** page each:

1. Monetary Policy
2. Commercial Banks
3. IRDA
4. Call Money Market
5. SEBI

Section –B (5x8=40)

Answer the following questions in not more than **FOUR** pages each:

6. a) Explain the structure of Indian financial System

(OR)

b) Explain the indicators of Financial Development

7. a) Explain the differences between public and private sector Banks.

(OR)

b) Explain the Risk management practices and strategies of commercial Banks.

8. a) Explain the growth of mutual fund industry in India.

(OR)

b) Explain the functions of Development Banks.

9. a) Explain in detail different types of primary securities market.

(OR)

b) Explain the features of commercial bill market.

10. a) Explain the problems of Indian Secondary market

(OR)

b) Explain the uses of stock market Indices.

Section – C (15 Marks)

Case Study:

Mr. Rohit Sharma is in a dilemma whether or not to invest his savings in equity market. He is of the opinion that, the smooth operations of the securities market, its healthy growth and development depends to a large extent on the quality and integrity of the market. Further, he argues that, despite the growth in the securities market, there is no proper regulation in our country to prevent fraudulent activities in securities market.

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Questions:

1. Do you agree with his opinion and arguments? Justify your answer.
2. State the regulatory authority related to securities market in India? Discuss its functions?
3. What suggestions do you give to Mr. Rohit Shrma to increase his confidence to invest in the securities market as a prospective investor?

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Code No. 1246

FACULTY OF BUSINESS MANAGEMENT

M.B.A. – IV SEMESTER REGULAR/BACKLOG EXAMINATIONS, MAY 2017

FINANCIAL INSTITUTIONS AND MARKETS

PAPER – VI

Time: 3 hours] [Max. Marks: 70

Note: Answer all the following questions from Section – A, B and C

Section – A

Answer the following questions in not more than **ONE** page each: (5x3=15)

1. Monetary policy
2. Capital Adequacy
3. Investment Banking
4. Call Money Market
5. Regulations of SEBI in Secondary market

Section – B

Answer the following questions in not more than **FOUR** pages each: (5x8=40)

6. a) Explain the structure of Indian Financial System.

   (OR)

   b) Explain the role and functions of RBI.

7. a) Explain the concept and evolution of commercial banks in India.

   (OR)

   b) Give an overview about Asset Liability Management in Banks.

8. a) Explain the concept and types of insurance in India.

   (OR)

   b) Describe the functions and activities of Investment Banking.

9. a) Describe the instruments available in primary securities market.

   (OR)

   b) Describe the steps in IPO issue management in the primary market.

10. a) Explain the listing and settlement procedures in the secondary market.

    (OR)

    b) Describe the problems and prospects of Indian stock markets.

Section – C (1x15=15)

An individual purchases an expensive new car. The individual obtains a loan to pay for the vehicle from a bank. At the time of purchase, the buyer also enters into a medical insurance policy that will cover the loan payments if he were to suffer a medical disability that would prevent repayment. A month or two later, the individual is intentionally involved in an "accident" with the vehicle, and an injury (as included in the insurance policy) is reported. A doctor, working in collusion with the individual, confirms injury. The insurance company then honours the claim on the policy by paying off the loan on the vehicle. Thereafter, the organization running the operation sells the motor vehicle and pockets the profit from its sale. In one instance, the insurance company suffered losses in excess of Rs. 20 Crores from similar fraud schemes carried out by certain groups.

Questions:

i) Do you think that norms were violated? Why?

ii) Who are the parties involved?

iii) Can you suggest measures that should be in place to prevent such occurrence?

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Code No.8/25/MBA/4.5/R&BL

FACULTY OF BUSINESS MANAGEMENT
MBA–IV SEMESTER REGULAR/BACKLOG EXAMINATIONS, MAY 2013
SERVICES MARKETING

PAPER-V

Time: 3 hours] [Max. Marks: 70

Section –A (5x3=15)

Answer the following questions in not more than **ONE** page each:

1. Classification of services, with example
2. Seven Ps.
3. Customer's perception of services.
4. Differentiate between inseparability and perishability.
5. Special features of insurance services.

Section –B (5x8=50)

Answer the following questions in not more than **FOUR** pages each:

6. a) Discuss the nature of services and explain how marketing of services differs from marketing of India.

(OR)

b) Examine the growth of service sector in India.

7. a) Explain the promotion mix for services.

(OR)

b) Examine the significance process in the delivery of services.

8. a) Explain the influence of search, experience and credence qualities on consumer behaviour.

(OR)

b) Explain the factors influencing customer expectations of services.

9. a) Examine the GAPs model of service quality.

(OR)

b) Explain the marketing strategies with reference to intangibility of services.

10. a) Explain the marketing strategies being followed by insurance companies after the entry of private insurance companies in India.

(OR)

b) How is marketing of educational services different from the marketing of financial services? Discuss.

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Section – C

(15 Marks)

Case Study:

KARNATAKA STATE TOURISM DEVELOPMENT CORPORATION (KSTDC) Ltd.

Karnataka is the eighth largest state in the Indian Union and is a veritable treasure of tourist delight. It is endowed with a fascinating mix of natural and man-made attractions palaces and forts with an aura of mystery, temples, which speak of the rich culture and tradition, beaches of golden sands, roaring waterfalls, green meadows and dense forests.

The state government set up the KSTDC in 1971 to promote tourism in the state by providing facilities to domestic and foreign tourists. The corporation has two divisions (i) transportation, and (ii) hotels. Through its transportation division with the use of Hi-tech A/C coaches, the corporation provides popular conducted and package tours to tourist spots in the state such as Belur, Halebid and Shravanabelagola, and Nandi Hills, Muddenahalli (the birth place of Sir M. Vishveshwaraiah), Shivasamudra, Somnathpur, Ranganaththtu (bird sanctuary), Nagarhole, Bandipur (wildlife sanctuary), Jog Falls and Gokarna.

Karnataka has a 320 km long coastline, dotted with numerous beaches, the beckon invitingly those craving for some respite, from the maddening grind of urban life. The serenity and unspoilt charm of the area, coupled with the spontaneity of the coastal folk, and their delectable cuisine, is just overwhelming.

THE PROBLEMS FACES:

In spite of Karnataka having a large number of places of tourist interest, KSTDC has not been able to exploit his potential to the fullest extent. There has been a low awareness of the various tourist spots not only to the domestic tourist, but also the foreign tourist. There has been a lack of sustained promotion strategies to promote these tourist spots. May be a result KSTDC is incurring financial losses. The image of the tourist with respect to the state is not very high. The corporation needs to through better focused promotional strategies and provision of suitable infrastructure facilities address these problems.

The situation in not drastically different from the other states in the country. There is a need to promote tourism whether it is of historical, religious, cultural or of other interest.

Questions:

1. What steps can be taken by KSTDC's end to meet infrastructural deficiencies?
2. What should the strategy of KSTDC be taken for services marketing?
3. What are the methods one would go about to make KSTDC a profit making organization?

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Code No. 1245

FACULTY OF BUSINESS MANAGEMENT

M.B.A. – IV SEMESTER REGULAR/BACKLOG EXAMINATIONS, APRIL 2015

SERVICE MARKETING

PAPER – V

Time: 3 hours] [Max. Marks: 70

Note: Answer all the following questions from Section – A, B and C

Section – A

Answer the following questions in not more than ONE page each: (5x3=15)

1. Characteristics of Services
2. Customer expectations
3. SERVQUAL
4. Process in Services Marketing
5. Heath Service Marketing

Section – B

Answer the following questions in not more than FOUR pages each: (5x8=40)

6. a) Explain how marketing of Services is different from tangible goods.

(OR)

b) How do you classify services? Discuss the role of classification in marketing of services.

7. a) Why is Physical evidence in marketing of services important. What are practices marketer follow to survive physical evidence?

(OR)

b) What is augmentation of service? Discuss the role of augmented service in the present scenario of services marketing

8. a) What is Customer expectation? What are the different expectations of customer regarding services?

(OR)

b) What is customer satisfaction? How do you measure customer satisfaction?

9. a) What is Service Quality? What are the different dimensions of Service Quality?

(OR)

b) Explain different strategies adopted by service marketers to deal with service characteristic of perish ability.

10. a) What are strategies adopted by Insurance companies to attract and retain the customers?

(OR)

b) Write briefly different positioning strategies adopted by organizations in Hospitality industry.

Section – C (1x15=15)

MY BANK, I DON'T LIKE

Some banks are very proud of being big, but their services sometimes, are far from being good. I stood in a long queue in the bank, filled the form for the transaction I wanted but when it was my turn at the cashier, I had a very bad experience.

My regular account was with a bank where my office deposited my salary. Unfortunately the office decided to shift its account to a bigger bank.

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I loved the service at my earlier bank, although they did not have many branches. However, people at the branch I used to go to, knew me and operations were easy to carry out. Queues were typically short and so was the waiting time.

At the bank, I was used to going directly to the cashier, who did the necessary paperwork after a kind greeting. This enabled me to finish my work and leave the bank in ten minutes.

In the new bank, forms supported operations and customers had to fill various forms. There were different application forms and one was never sure which one to use. It was really confusing.

Once I wanted to deposit a cheque in my account, so I went to the bank and looked for a deposit form. As usual, there were at least four deposit forms to choose from. I filled the form as usual but felt annoyed with the cumbersome procedure and could not help comparing it with per my earlier experience with other banks.

Having taken almost five minutes to fill the form, I went to the queue, which was quite long. After 30 minutes of waiting finally, it was my turn at the cashier. I told her what I wanted to do and presented the form to her.

The cashier said, 'Well, I'm afraid this is not the right form.' I requested her to fill the right form for me. There were so many of them that I was not sure which form to use. Clearly, She did not take kindly to this.

'No sir, I am afraid I cannot do that for you. There are a lot of people waiting in the queue. The queue is so long that I am not allowed and, besides, I am not allowed to do so, the cashier replied.

I was not happy about it but I knew I will have to fill up the form again, even though I had already spent 35 minutes there.

'Miss, Please give me the right form, I will fill it up myself, I told her, striking a compromise.

'Sir, if you fill the right form and bring it back to me, you will not have to stand in the queue again,' she said, pointing to where all the forms were kept.

I was running short of patience. 'Do not you have one here?' I almost shouted.

'No sir, I do not have any. 'You are supposed to fill your form down there,' she said, and pointed to the same place again.

I had little choice. I was angry because of the queue, because of the inefficiency of the bank, lack of service attitude, and that they were clearly not concerned about their customers. In order to make life easier for themselves the cashier purposefully did not keep forms at her counter.

I finally decided to open a cheque account with my earlier bank and when my office deposits my salary, I immediately issue a cheque favoring my earlier bank account.

I transact business where I feel comfortable!

Discussion issues

i) What is the root of the problem presented?
ii) What should have been the cahier's answer to this inquiry if she had service attitude?
iii) What is the potential risk involved in these kind of situation?

Code No. 1245

FACULTY OF BUSINESS MANAGEMENT

M.B.A. – IV SEMESTER REGULAR/BACKLOG EXAMINATIONS, MAY 2017

SERVICE MARKETING

Paper – V

Time: 3 hours] [Max. Marks: 70

Note: Answer all the following questions from Section – A, B and C

Section – A

Answer the following questions in not more than **ONE** page each: (5x3=15)

1. Characteristics of Services
2. Seven P's of Marketing Services
3. Service Encounters
4. Pricing Strategies of Services Marketing
5. Insurance Services

Section – B

Answer the following questions in not more than **FOUR** pages each: (5x8=40)

6. a) Explain the reasons for the Growth of the Service Sector in India and its role in the Indian Economy.

   (OR)

   b) Brief on the Challenges and Issues in Services Marketing.

7. a) Write the various methods for marketing services in India.

   (OR)

   b) Explain the role of People in Services Marketing.

8. a) What is the difference between Customer Satisfaction and Customer Delight? With suitable examples?

   (OR)

   b) Why the Consumer Experiences are so important in the evaluation process for Services?

9. a) Define and list the five dimensions of Service Quality.

   (OR)

   b) Explain the strategies for dealing with Intangibility and Inseparability. And Perish ability.

10. a) Explain the marketing of services with special reference to Hospitality Services with examples.

    (OR)

    b) Write the brief notes on Marketing Strategies used by Educational Services in India.

Section – C (1x15=15)

India was the largest e-commerce market in the world, next only to the US and China. According to a joint report by KPMG and the Internet and Mobile Association of India, the for over 70% of consumer e-commerce transactions in 2013. According to Forrester Research, online sales of retail goods was US$1.6 billion in 2013. According to Techno park, this was expected to reach US$76 billion by 2021.....

P.T.O

In February 2012, Amazon began testing the waters in India by launching Junglee.com, its Comparison shopping site which enabled sellers to upload their product catalog promoted by Amazon. After seeing the promotions on Junglee.com, the buyer could select the product he/she needed and the final sale would happen on the seller's website. "With junglee.com, we have come up with a single online platform for customers where they can shop from a wide selection of products sold by local and global retailers.

Amazon launched jungle.com since 100% FDI in e-commerce was not allowed in India. Through the website did not allow any transaction on the site, it helped Amazon get an insight into the e-commerce space in India as well as to build brand loyalty.

Q) Amazon India is one of the top most e-commerce companies in India, In 2013 Amazon launched its site in India **amazon.in.** Discuss its positioning strategy compared to other top players in India.

--oOo--

5022-15-862-003

Code No.1745b

FACULTY OF SCIENCE

M.C.A. IV – SEMESTER REGULAR/BACKLOG EXAMINATIONS, MAY 2017

DISTRIBUTED SYSTEMS

PAPER –V b

Time: 3 hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than ONE page each: (5x4=20)

1. Briefly explain about Distributed Systems goals?
2. Discuss about DNS.
3. Discuss about consistency protocol.
4. Briefly discuss about D-COM.
5. Discuss the issues in Load Distributing.

Section – B

Answer the following questions in not more than FOUR pages each: (5x10=50)

6. a) Explain about software agents in detail.

   (OR)

   b) Describe Client Server model.

7. a) Explain the steps in locating mobile entities.

   (OR)

   b) Describe election algorithms in detail.

8. a) Discuss about Data-Centric Models.

   (OR)

   b) Discuss about Reliable Client-Server and Group Communication.

9. a) Explain CORBA in detail.

   (OR)

   b) Describe Distributed File System in detail.

10. a) Describe memory coherence in Distributed Shared Memory?

    (OR)

    b) Explain the components of Load Distributing Algorithms.

--oOo--

5022 – 15 – 862 – 011

Code No.1742

FACULTY OF SCIENCE

M.C.A. IV – SEMESTER REGULAR/BACKLOG EXAMINATIONS, MAY 2017

COMPUTER NETWORKS

PAPER –II

Time: 3 hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. Transmission Media.
2. Fast Ethernet.
3. Distance Vector Routing.
4. Multiplexing.
5. Domain Name Service (DNS).

Section – B

Answer the following questions in not more than **FOUR** pages each: (5x10=50)

6. a) Write a comparative note on OSI model and TCP/IP model.

   (OR)

   b) What is protocol architecture? Explain.

7. a) Explain about error detection and error control techniques in data link layer.

   (OR)

   b) What is piggybacking? Explain GO Back N protocol.

8. a) Explain in detail about the following:
   1) Open Shortest Path First (OSPF) 2. Border Gateway Protocol (BGP)

   (OR)

   b) Draw the IPv6 datagram format and explain in detail about each field.

9. a) Write in detail as to how Congestion control is addressed in TCP.

   (OR)

   b) Explain about User Datagram Protocol (UDP).

10. a) Discuss about WWW and HTTP.

    (OR)

    b) What is SMTP? Elaborate.

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5022-15-862-01)

Code No.1744

FACULTY OF SCIENCE

M.C.A. IV – SEMESTER REGULAR/BACKLOG EXAMINATIONS, MAY 2017

WEB PROGRAMMING

PAPER –IV

Time: 3 hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. Distinguish between static HTML and Dynamic HTML
2. Briefly explain about event model
3. What is recursion? Explain
4. Explain about function in VB script
5. Briefly explain about XML Parsers

Section – B

Answer the following questions in not more than **FOUR** pages each: (5x10=50)

6. a) Explain about tabs and formatting in HTML with examples.

(OR)

b) What are user style sheets? Explain in detail with examples.

7. a) Explain in detail about children frames.

(OR)

b) Discuss about data binding with tabular data in detail.

8. a) Explain the following: Java script control structures:
   i) Switch ii) if iii) if-else

(OR)

b) What are global functions in Java script? Explain usage of arrays in Java Script.

9. a) Explain about classes and objects in VB Scripts.

(OR)

b) Discuss in detail about Apache web server.

10. a) Explain the following:
    i) ADO ii) CGI and PERL

(OR)

b) Explain the following:
   i) Processing and regular expressions
   ii) XML usage with HTML

--oOo--

5022-15-862-011

Code No.1743

FACULTY OF SCIENCE

M.C.A. IV – SEMESTER REGULAR/BACKLOG EXAMINATIONS, MAY 2017

UNIX PROGRAMMING

PAPER –III

Time: 3 hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. Write and explain basic UNIX commands.
2. Explain namespaces.
3. Write about ports.
4. Explain arrays in Perl.
5. Explain Errors and Exceptions in Python.

Section – B

Answer the following questions in not more than **FOUR** pages each: (5x10=50)

6. a) Explain, in detail File System Security and File Permissions.

   (OR)

   b) What is Shell? What are the different types of Shells present? Explain shell programming with any 2 programs.

7. a) Explain UNIX Model with Process Control.

   (OR)

   b) What is Inter Process Communication (IPC)? Explain, How to achieve with Locking and Pipes in UNIX?

8. a) What is Socket? Explain Elementary socket system calls with Client-Server program.

   (OR)

   b) Explain the following

   i. asynchronous I/O ii. Out-off band data

9. a) i. Explain Control statements of Perl.

   ii. Write a program to print even numbers using Perl.

   (OR)

   b) i. Explain operations and expressions of PHP.

   ii. Explain functions and pattern matching in PHP.

10. a) Explain Sequences (Strings, Lists, and Tuples) of Python.

    (OR)

    b) Explain Files in Python.

--oOo--

5022-15-862-011

Code No.1741

FACULTY OF SCIENCE

M.C.A. IV – SEMESTER REGULAR/BACKLOG EXAMINATIONS, MAY 2017

DATAWARE HOUSING & DATA MINING

PAPER –I

Time: 3 hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. Write the motivation for data ware housing.
2. What is meant by Regression?
3. What are the benefits of Data ware housing?
4. Write the goals of data ware housing.
5. What is meant by data extraction.

Section – B

Answer the following questions in not more than **FOUR** pages each: (5x10=50)

6. a) What are the data models? Explain each model with suitable example.

   (OR)

   b) Discuss the various mining association rules.

7. a) i) Explain the evaluation of clusters.
      ii) Write the issues of classification.

   (OR)

   b) Discuss the classification of clustering algorithms.

8. a) i) Explain the demand for strategic information.
      ii) Write the benefits and concerns of data warehousing.

   (OR)

   b) What is the life cycle of a data? Write about data flow from warehouse to operational systems.

9. a) Give the architecture of dataware house and discuss the strength of data mining.

   (OR)

   b) List the characteristics of dimension table and describe fact table.

10. a) What is ETL Process? Explain about transformation and loading.

    (OR)

    b) Discuss the functions and applications of OLAP.

--oOo--

Code No.1752

FACULTY OF SCIENCES

MCA V – SEMESTER REGULAR EXAMINATIONS, DEC- 2016

MIDDLEWARE TECHNOLOGIES

PAPER – II

Time: 3 hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. Write about Object Server and Web Server
2. Draw and explain the EJB Software architecture
3. Write about the Session bean
4. Explain briefly how EJB and CORBA are related/associated
5. What is Remoting?

Section – B

Answer the following questions in not more than **FOUR** page each: (5x10=50)

6. a) Explain about the building blocks of client-server technologies.
   b) Distinguish between General Middleware and Service-specific Middleware.

   (OR)

   c) Write about SOA and SOAP.
   d) Write about WSDL and REST.

7. a) Explain in detail about the role of EJB in the 3-tier architecture.

   (OR)

   b) Write about the roles relating to EJB environment who support and maintain the EJB architecture consistently.

8. a) Distinguish between Stateful and Stateless Bean.
   b) Write in detail about Entity Bean.

   (OR)

   c) List and explain the steps involved in the implementation of EJB.
   d) Describe the transactions that take place when a client calls a Bean.

9. a) Explain the client and server sides of CORBA object Request Broker.

   (OR)

   b) Describe the architecture of CORBA.

10. a) Discuss about .NET architecture with the help of a neat sketch.

    (OR)

    b) Perform a comparative study between COM and CORBA.

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Code No. 17/25/MCA/3.5/OR

FACULTY OF SCIENCE

M.C.A. III – SEMESTER REGULAR EXAMINATIONS, FEB 2014

OPERATIONS RESEARCH

PAPER – V

Time: 3 Hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. Write short notes on Sensitivity Analysis.
2. Explain the mathematical model of transportation problem
3. List and explain the steps involved in the HUNGERIAN method.
4. List the various applications of dynamic programming with brief application.
5. List and explain the terminologies of Game theory.

Section – B (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6. a) Solve the following linear programming problem using graphical method.

Maximize $Z = 20x_1 + 10x_2$

Sub. to the constraints $x_1 + 2x_2 \leq 40$

$3x_1 + x_2 \leq 30$

$4x_1 + 3x_2 \geq 60$

x_1 and $x_2 \geq 0$

(OR)

b) Solve the following linear programming problem using simplex method.

Maximize $Z = 5x_1 + 3x_2 + 7x_3$

Sub. To the constraints $x_1 + x_2 + 2x_3 \leq 22$

$3x_1 + 2x_2 + x_3 \leq 26$

$x_1 + x_2 + x_3 \leq 18$

x_1, x_2 and $x_3 \geq 0$

7. a) Write the algorithm for Northwest-corner method.

(OR)

b) Consider the following transportation problem involving three sources and four destinations. The cell entries represent the cost of transportation per unit. Obtain the initial feasible solution using Least-corner method.

		Destination				
		1	2	3	4	**Supply**
Source	1	3	1	7	4	300
	2	2	6	5	9	400
	3	8	3	3	2	500
Demand		250	350	400	200	1200

[PTO

Code No. 1833

FACULTY OF SCIENCE

M.Sc. (MATHEMATICS) III-SEMESTER REGULAR EXAMINATION, DEC' 2014

SUBJECT: OPERATIONS RESEARCH

PAPER – III

Time: 3 Hours] [Max. Marks: 70

Note: Answer all the following questions from Section-A and Section-B

Section – A (5x4=20)

Answer the following questions in not more than ONE page each:

1. Explain i) optimal solution of LPP
   ii) Artificial variables
2. Write the dual of the LPP:
   Max: $z = 7x_1-3x_2+8x_3$
   S.T.C $8x_1+2x_2+x_3 \le 3$
   $3x_1+6x_2+4x_3 \le 4$
   $4x_1+x_2+5x_3 \ge 1$
   $x_1-5x_2+2x_3 \le 7$; $x_1, x_2, x_3 \ge 0$
3. What is an unbalanced assignment problem?
4. Explain Forward and Backward approach in dynamic programming.
5. Explain about sensitivity analysis.

Section – B (5x10=50)

Answer the following questions in not more than FOUR pages each:

6 a) Use simplex method and solve
   Max: $z = 2x_1+4x_2+x_3$
   S.T.C $x_1+3x_2-x_3 \le 4$
   $x_1+4x_2+x_3 \le 10$
   and $x_1, x_2, x_3 \ge 0$

(OR)

b) Solve the LPP by two-phase simplex method.
   Max: $z = 5x_1-2x_2+3x_3$
   S.T.C $2x_1+2x_2-x_3 \ge 2$
   $3x_1+4x_3 \le 3$
   and $x_1, x_2, x_3 \ge 0$

7 a) Write the steps in the dual simplex algorithm for solving LPP

(OR)

b) Solve the following LPP by dual simplex method.
   Max: $z = x_1+2x_2+3x_3+4x_4$
   S.T.C. $x_1+2x_2+2x_3+2x_4 \ge 30$
   $2x_1+x_2+3x_3+2x_4 \ge 20$
   and $x_1, x_2, x_3, x_4 \ge 0$.

P.T.O

8 a) Solve the Assignment problem

	M_1	M_2	M_3	M_4
J_1	5	8	3	2
J_2	4	10	12	4
J_3	8	6	9	4
J_4	3	5	9	8

(OR)

b) Solve the Transportation Problem

	D_1	D_2	D_3	a
O_1	3	6	1	50
O_2	8	12	9	45
O_3	7	7	3	85
b	50	60	70	180

9 a) Divide a quantity 'P' into 'n' parts so as to maximize their product using Dynamic Programming

(OR)

b) Use Dynamic programming to solve
   Maximize $z = y_1 y_2 y_3$
   When $y_1+y_2+y_3=15$ and $y_1, y_2, y_3 \ge 0$

10 a) Solve the following assignment problem and obtain the optimal solution:

		Employees A	B	C
Jobs	1	10	7	8
	2	8	9	7
	3	7	12	6
	4	10	10	8

(OR)

b) Using Dynamic Programming find the minimum value of $z = y_1^2 + y_2^2 + \cdots + y_n^2$ subject to $y_1 y_2 \cdots y_n = c$, $c \ne 0$ and $y_i \le 0$; i=1,2,----n

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(24)

5022 - 15 - 862 - 011

Code No.1735

FACULTY OF SCIENCES

MCA III – SEMESTER REGULAR EXAMINATIONS, DEC- 2016

OPERATIONS RESEARCH

PAPER – V

Time: 3 hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. Explain sensitive analysis in Linear Programming Problem.
2. Explain degeneracy in Transportation problem.
3. Write short notes on assignment problem and its applications.
4. Write short notes on application of Dynamic programming.
5. Define strategy, pure strategy, mixed strategy.

Section – B

Answer the following questions in not more than **FOUR** page each: (5x10=50)

1. (a) Using Big-M Method solve the LPP.

Minimize $Z = 12X_1 + 20X_2$

Subject to the constraints

$6X_1 + 8X_2 \geq 100$

$7X_1 + 12X_2 \geq 120$

$X_1, X_2 \geq 0$

(OR)

(b) Solve the LPP.

Maximize $Z = 2X_1 + 3X_2 + 10X_3$

Subject to the constraints

$X_1 + 2X_3 = 0$

$X_2 + X_3 = 1$

$X_1, X_2, X_3 \geq 0$

2. (a) Using Vogel's approximation method find the initial basic feasible solution for the following transportation problem.

	Destination 1	2	3	4	Availability
A	7	2	5	5	30
B	4	4	6	5	15
C	5	3	3	2	10
D	4	-1	4	2	20
Requirement	20	25	15	15	

P.T.O

Code No.1735

-2-

(OR)

(b) Find the optimal solution for the following transportation problem.

Factory	P	Q	R	S	Availability
A	10	8	7	12	500
B	12	13	6	10	500
C	8	10	12	14	900
Demand	700	550	450	300	

3. (a) Solve the following assignment problem.

	I	II	III	IV	V
1	11	17	8	16	20
2	9	7	12	6	15
3	13	16	15	12	16
4	21	24	17	28	26
5	14	10	12	11	13

(OR)

(b) Find the optimal solution by Hungarian method.

	P	Q	R	S	T
A	85	75	65	125	75
B	90	78	66	132	78
C	75	66	57	114	69
D	80	72	60	120	72
E	76	64	56	112	68

4. (a)Using dynamic programming to solve the following LPP.

Maximize $Z = 3x_1 + 5x_2$

Subject to the constraints

$x_1 \leq 4$

$x_2 \leq 6$

$3x_1 + 2x_2 \leq 18$

$x_1, x_2 \geq 0$

(OR)

P.T.O

(b) Solve Minimize $Z = y_1^2 + y_2^2 + y_3^2$

Subject to the constraints

$y_1 + y_2 + y_3 \geq 15$

$y_1, y_2, y_3 \geq 0$

5. (a) Solve the following game.

7	1	7
9	-1	1
5	7	6

(OR)

(b) Solve the game by linear programming method.

3	-4	2
1	-3	-7
-2	4	7

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Code No.1735

FACULTY OF SCIENCES
MCA III – SEMESTER REGULAR EXAMINATIONS, DEC- 2017
OPERATIONS RESEARCH
PAPER – V

Time: 3 hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. Define slack variables and surplus variable in Linear Programming problem.
2. Define Feasible solution, Basic feasible solution, Non-degenerate Basic feasible solution in transportation problem.
3. Explain briefly cutting plane algorithm.
4. Explain state variable, recursive function, best recursive function, backward recursive function.
5. Define two-person zero sum game, optimal strategy, pure strategy.

Section – B

Answer the following questions in not more than **FOUR** page each: (5x10=50)

6. (a) Using Big-M Method solve the LPP.

Minimize $Z = 2X_1 + 5X_2$

Subject to the constraints

$X_1 + 4X_2 \leq 24$

$3X_1 + X_2 \leq 21$

$X_1 + X_2 \leq 9$

$X_1, X_2 \geq 0$

(OR)

(b) Solve the LPP.

Maximize $Z = 5X_1 - 2X_2 + 3X_3$

Subject to the constraints

$2X_1 + 2X_2 - X_3 \geq 2$

$3X_1 - 4X_2 \leq 3$

$X_1 + 3X_3 \leq 5$

$X_1, X_2, X_3 \geq 0$

7. (a) Find the initial basic feasible solution to the following transportation problem using North West corner rule.

						Availability
	4	3	1	2	6	80
	5	2	3	4	5	60
	3	5	6	3	2	40
	2	4	4	5	3	20
Requirement	60	60	30	40	20	

(OR)

(b) Find the optimal solution for the following transportation problem.

	Destinations				
	D_1	D_2	D_3	D_4	Supply
O_1	6	4	1	5	14
O_2	8	9	2	7	16
O_3	4	3	6	4	5
Required	6	10	15	4	

[PTO

Code No.1735

8. (a) Maximize by Branch and Bound Technique

$Z = 7X_1 + 9X_2$

Subject to

$-X_1 + 3X_2 \leq 6$

$7X_1 + X_2 \leq 35$

$0 \leq X_1, X_2 \leq 7$

X_1, X_2 are integers.

(OR)

(b) Find the optimal solution of the Assignment Problem

	I	II	III	IV
A	5	3	1	8
B	7	9	2	6
C	6	4	5	7
D	5	7	7	6

9. (a) Minimize $y_1^2 + y_2^2 + y_3^2$

Subject to $y_1 + y_2 + y_3 = 10$

y_1, y_2, y_3 are non-negative integers.

(OR)

(b) Solve LPP by the method of dynamic programming

Maximize $Z = 2X_1 + 5X_2$

Subject to $2X_1 + X_2 \leq 430$

$2X_2 \leq 460$

$X_1, X_2 \geq 0$

10. (a) Solve the following game.

	B_1	B_2
A_1	30	2
A_2	4	14
A_3	6	9

(OR)

(b) Explain the method to solve $2 \times n$ game graphically.

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5174-16-862-030

Code No.1733

FACULTY OF SCIENCES
MCA III – SEMESTER REGULAR EXAMINATIONS, DEC- 2017
DESIGN AND ANALYSIS OF ALGORITHMS

PAPER – III

Time: 3 hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. What do you mean by best case, average case and worst case time complexity of an algorithm.
2. Explain divide and conquer concept?
3. Explain Dynamic Programming?
4. Explain back tracking method?
5. What is Cook's Theorem?

Section – B

Answer the following questions in not more than **FOUR** page each: (5x10=50)

6. a) What is an Algorithm? Explain various notations related to Algorithm Performance analysis.

(OR)

b) Explain various Elementary Data Structures.

7. a) Explain the Single Source Shortest Paths Problems.

(OR)

b) Explain the Optimal Merge Patterns.

8. a) Explain All-Pairs Shortest Paths Problems.

(OR)

b) Write a Pseudo code to determine Bi connected components and explain.

9. a) Explain the Graph Coloring Scheme?

(OR)

b) Explain 0/1 Knapsack Problem in Branch and Bound Technique.

10. a) Explain classes NP-Hard and NP-Complete.

(OR)

b) Explain AND/OR graph decision problem.

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Code No.1733

FACULTY OF SCIENCES

MCA III – SEMESTER REGULAR EXAMINATIONS, DEC- 2017

DESIGN AND ANALYSIS OF ALGORITHMS

PAPER – III

Time: 3 hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. What do you mean by best case, average case and worst case time complexity of an algorithm.
2. Explain divide and conquer concept?
3. Explain Dynamic Programming?
4. Explain back tracking method?
5. What is Cook's Theorem?

Section – B

Answer the following questions in not more than **FOUR** page each: (5x10=50)

6. a) What is an Algorithm? Explain various notations related to Algorithm Performance analysis.

   (OR)

   b) Explain various Elementary Data Structures.

7. a) Explain the Single Source Shortest Paths Problems.

   (OR)

   b) Explain the Optimal Merge Patterns.

8. a) Explain All-Pairs Shortest Paths Problems.

   (OR)

   b) Write a Pseudo code to determine Bi connected components and explain.

9. a) Explain the Graph Coloring Scheme?

   (OR)

   b) Explain 0/1 Knapsack Problem in Branch and Bound Technique.

10. a) Explain classes NP-Hard and NP-Complete.

    (OR)

    b) Explain AND/OR graph decision problem.

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Code No.1733

FACULTY OF SCIENCES

MCA III – SEMESTER REGULAR EXAMINATIONS, DEC- 2016

DESIGN AND ANALYSIS OF ALGORITHM

PAPER – III

Time: 3 hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. Describe the method for analyzing an algorithm?
2. Describe the greedy method?
3. Explain BFS Graph?
4. Explain Branch-Bound Concept?
5. Explain code generation with common sub expressions?

Section – B

Answer the following questions in not more than **FOUR** page each: (5x10=50)

6. a) Consider the following list of elements,
   70, 80,40,50,60,11,35,85?
   Sort the above list using merge sort.

   (OR)

   b) Write an algorithm form the i^{th} element from the stack and find time complexity.

7. a) Explain Convex Hull Problem with example?

   (OR)

   b) Explain Knapsack Problem with the help of suitable examples?

8. a) Explain the Traveling Salesperson Problem?

   (OR)

   b) Explain optimal binary search trees.

9. a) Explain 8-Gueens Problem.

   (OR)

   b) Explain the 0/1 Knapsack Problem?

10. a) Explain NP-Hard Scheduling Problems.

    (OR)

    b) Explain Cook's Theorem?

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Code No.1734

FACULTY OF SCIENCES
MCA III – SEMESTER REGULAR EXAMINATIONS, DEC- 2017
OPERATING SYSTEMS
PAPER – IV

Time: 3 hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. What is System Call? Discuss in brief.
2. Discuss Directory Structure.
3. Write about Resource Allocation Graph.
4. Explain in brief about Stable Storage Implementation.
5. Briefly discuss Linux Security Model.

Section – B

Answer the following questions in not more than **FOUR** page each: (5x10=50)

6. a) Discuss various Scheduling Algorithms and list out advantages and disadvantages.

(OR)

b) What are the advantages of Multithreaded Programming? Discuss different Multithreading Models.

7. a) Write about File Allocation Methods.

(OR)

b) Discuss in detail about Demand Paging.

8. a) Write about Deadlock Handling Methods.

(OR)

b) Discuss Reader Writer Problems and provide solution using a Semaphore.

9. a) Write about Kernel I/O Sub system and Application I/O interface.

(OR)

b) Explain in detail about Swap Space Management.

10. a) Write about Design Principles of Windows XP.

(OR)

b) Explain the File System and Memory Management in Linux.

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Code No.1734

FACULTY OF SCIENCES

MCA III – SEMESTER REGULAR EXAMINATIONS, DEC- 2017

OPERATING SYSTEMS

PAPER – IV

Time: 3 hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. What is System Call? Discuss in brief.
2. Discuss Directory Structure.
3. Write about Resource Allocation Graph.
4. Explain in brief about Stable Storage Implementation.
5. Briefly discuss Linux Security Model.

Section – B

Answer the following questions in not more than **FOUR** page each: (5x10=50)

6. a) Discuss various Scheduling Algorithms and list out advantages and disadvantages.

   (OR)

   b) What are the advantages of Multithreaded Programming? Discuss different Multithreading Models.

7. a) Write about File Allocation Methods.

   (OR)

   b) Discuss in detail about Demand Paging.

8. a) Write about Deadlock Handling Methods.

   (OR)

   b) Discuss Reader Writer Problems and provide solution using a Semaphore.

9. a) Write about Kernel I/O Sub system and Application I/O interface.

   (OR)

   b) Explain in detail about Swap Space Management.

10. a) Write about Design Principles of Windows XP.

    (OR)

    b) Explain the File System and Memory Management in Linux.

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Code No.1734

FACULTY OF SCIENCES

MCA III – SEMESTER REGULAR EXAMINATIONS, DEC- 2016

OPERATING SYSTEMS

PAPER – IV

Time: 3 hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. Draw process state transition diagram and discuss
2. What is static and dynamic partition?
3. Write about Monitors
4. Write a note on Stable Storage Implementation
5. Discuss briefly about any file system in Linux

Section – B

Answer the following questions in not more than **FOUR** page each: (5x10=50)

6. a) Define a thread? Discuss how inter process communication is implemented?

(OR)

b) Consider the set of processes with the CPU burst time gives in milliseconds

Process	Burst time	Priority
P_1	10	3
P_2	1	1
P_3	2	3
P_4	1	4
P_5	5	2

Draw Gantt Charts for FCFS, non preemptive priority and SJF and Calculate Average waiting time for three Algorithms.

7. a) What is meant by Swapping? Explain about page replacement Algorithm with suitable examples (Any two).

(OR)

b) Explain about file system implementation and Access methods?

8. a) What is critical section problem? Explain how it is solved by using semaphores? Give in detail.

(OR)

b) What is Safe State? Explain Banker's Algorithm by taking example.

9. a) Describe RAID Structure and discuss disk scheduling Algorithms.

(OR)

b) Write about Kernel I/O Sub systems and how I/O request is transformed to hardware operations.

10. a) Discuss process management and memory management in Linux systems.

(OR)

b) Explain about General Architecture of Windows XP.

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5022-15-862-011

Code No.1731

FACULTY OF SCIENCE
MCA III – SEMESTER REGULAR EXAMINATIONS, DEC- 2016
SOFTWARE ENGINEERING

PAPER – I

Time: 3 hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. Describe Component Software Process?
2. Discuss the importance of SRS?
3. Differentiate between Cohesion and Coupling?
4. Discuss the Metrics of Coding?
5. What is SPI return on investment?

Section – B

Answer the following questions in not more than **FOUR** page each: (5x10=50)

6. a) What is a Software Cost? Discuss any two Software Development Process Models?

(OR)

b) What is a Software Problem? Explain the Project Schedule and Quality with the Project Management Process?

7. a) What is functional specification? Explain the Requirements Specification and other Approaches with use cases?

(OR)

b) Explain the Role of Software Architecture? Explain the Architectural views?

8. a) Discuss Quality Planning and Risk Management Planning.

(OR)

b) How to design Software? Differentiate between object oriented design and function oriented design.

9. a) What is Software Testing? Differentiate between Black box testing and white box testing.

(OR)

b) What are the programming principles and guidelines available in coding? Discuss the metrics and managing evolving code.

10. a) What are the steps involved in a software maintenance? Explain the difference between forward engineering and Reverse Engineering.

(OR)

b) Explain CMMI?

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