K S R M College of Engineering (Autonomous), KADAPA – 516 003
B. Tech VII Semester - Regular Examinations, 2021 - Model Question Paper
Sub: BUILDING TECHNOLOGY
(Civil Engineering)

Time: 03:00 Hrs.   **Max. Marks: 70**

Answer any FIVE Questions choosing One Question from each Unit.
All Questions carries equal marks

Unit-I

1. (a) Explain Characteristics of Bricks   7M

(b) What is the classification of Stones   7M

Or

2. (a) Describe with neat sketches Structures of Wood   7M

(b) Differences between Ordinary and Special Cements   7M

Unit-II

3. Explain RCC Properties?   14M

Or

4. Differences between RMC&HPC   14M

Unit-III

5. Explain Types of Foundations   14M

Or

6. (a) Differences between Brick and Stone Masonry   8M

(b) What are the types of Floors   6M

Unit-IV

7. Write an Essay Lintels   14M

Or

8. What are the types of Roofs   14M

Unit-V

9. (a) Write a short Note on Plastering   7M
   (b) a brief note on Distempers   7M

Or

10. Write an essay Water Supply and Sanitary arrangements   14M

K.S.R.M. COLLEGE OF ENGINEERING
(Autonomous)
B.Tech., VII Sem (R18) Model Question Paper – 2021.
Subject: Water Supply Engineering (18OE105)

Time: 3 Hours   **Max Marks: 70**

Instructions: Write any five questions, choosing one form any unit. Make use of legible diagrams wherever needed.

Q No

Unit 1

1.   A. Elaborate on the need of protected water supply? What are the objectives of protected water supply? (8M)

     B. Calculate the population of a city with the following data for the years 2021, 2031 and 2041 respectively, using *Arithmetic* Increase Method. (6M)

Year	1971	1981	1991	2001	2011
Population	10500	10800	11110	11640	12420

2.   A. Consider a city and elaborate on various factors that affect the demand of water. (8M)

     B. Calculate the population of a city with the following data for the years 2021, 2031 and 2041 respectively, using *Geometric* Method. (6M)

Year	1971	1981	1991	2001	2011
Population	1,12,000	1,13,000	1,14,200	1,15,400	1,20,000

Unit 2

3.   A. Give a detailed account of various sources of water available. Also Write the suitability of a source for consumption. (10M)

     B. Explain about drinking water quality standards. (4M)

4.   A. Give a detailed report on any five water borne diseases and prevention methods. (10M)

     B. Define BOD, COD, pH and TDS. (2M)

Unit 3

5. Elaborate on the components of a Water treatment plant with detailed flow chart. (14M)

6.   A. Give a brief account on sedimentation and sedimentation aided by coagulation? (6M)

     B. Briefly explain (8M)
       1)Chlorination. 2) Breakpoint Chlorination. 3) Ozonation. 4) Reverse Osmosis.

Unit 4

7.   A. Differentiate between desalination and demineralization. (7M)

     B. Describe various methods to soften water. (7M)

8.   A. Give a detailed account of membrane bioreactors. (7M)

     B. What are emergent pollutants? Give a few examples. (7M)

Unit 5

9. Elaborate on various layouts of water supply systems. Do mention the advantages and disadvantages of each of the systems. (14M)

10. Describe about various types of water pipes available for the supply of drinking water. Mention the advantages of such pipes. (14M)

K.S.R.M COLLEGE OF ENGINEERING, KADAPA
(AUTONOMOUS)
IV/I B.Tech VII semester (R18) Regular Examinations , NOV2021
Quantitative Analysis for Business Decisions *(OPEN ELECTIVE)*
(Mechanical Engineering)
MODEL QUESTION PAPER

Time:3 hrs   Max Marks: 70

Answer five questions, selecting one Question from each unit
All Questions carry equal marks
UNIT_1

1. A company is manufacturing two different types of products, A and B. Each product has to be processes on two machines M_1 and M_2, Product A requires 2 hours on machine M_1 and 1 hour on machine M_2, product B requires 1 hour on machine M_1 and 2 hours on machine M_2. The available capacity of machine M_1 is 104 hours and that of machine M_2 is 76 hours. Profit per unit for product A is Rs.6 and that for B is Rs.11. Calculate i) Formulate the problem ii) Find out the optimal solution by Simplex method.   (14)

(Or)

2. Old hens can be bought at Rs 30 each and young ones at Rs 50 each. The old henslay 3 eggs per week and the young ones lay 6 eggs per week, each egg being worth Rs.1.75 paise. A hen (young or old) costs Rs 3 per week to feed. he have only Rs. 100 to spend for hens. How many of each kind should he buy to give a profit of more than Rs 6 per week, assuming that he cannot house more than 20 hens?   (14)

UNIT_II

3   a)Briefly explain the Hungarian Method procedure with example. Also write theassumptions.
     b)What is degeneracy? How do you overcome degeneracy in transportationproblems? (7+7)

(Or)

4. Find the optimum solution to the transportation problem given in the Table for whichthe cost, origin-availabilities, and destination-requirements are given.   (14)

	D1	D2	D3	D4	Supply
O1	5	3	6	2	19
O2	4	7	9	1	37
O3	3	4	7	5	34
Demand	16	18	31	25	90

UNIT_III

5..   Find the cost period of individual replacement of an installation of 300 lighting bulbs, given the following: i) Cost of replacing individual bulb is Rs. 3 ii) Conditional probability of failure is given below:

Week number:	0	1	2	3	4
Conditional probability of failure :	0	1/10	1/3	2/3	0

(or)

6 . A machine owner finds from his past records that the costs per year of maintaininga machine

whose purchase price is Rs. 6000/- are as given below.   (14)

Year	1	2	3	4	5	6	7	8
Maintenance cost	1000	1200	1400	1800	2300	2800	3400	4000
Resale price	3000	1500	750	375	200	200	200	200

Determine at what age a replacement is due.

7. A and B play a game in which each has three coins, a 5 paise, a 10 paise and a 20 paise coin. Each player selects a coin without the knowledge of other's choice. If the sum of the coins is an odd amount, A wins B's coin and if the sum is even , B wins A's coin. Find the best strategy for each player and value of game.   (or)   (14)

8. Solve the game whose payoff matrix is given below: (14)

B

		B1	B2
A	A1	6	-1
	A2	0	4
	A3	4	3

UNIT-V

9. The arrivals at a telephone booth are considered to be following Poisson law of distribution with an average time of 10 minutes between one arrival and the next Length of the phone call is assumed to be distributed exponentially with a mean of 3minutes.   (14)

(a) What is the probability that a person arriving at the booth will have to wait?

(b) What is the average length of queue that forms from time to time?

(c) The telephone department will install a second booth when convinced that an arrival would expect to wait at least three minutes for the phone. By how much must the flow of arrivals be increased in order to justify a second booth?

(or)

10. what are the advantages and disadvantages of simulation ? Explain Monte Carlo simulation?

(7+7)

<u>UNIT-1</u>

1. a) Define Telecommunication. Write the evolution of telecommunications.   7M
    b) What are the various types of telecommunication systems? Explain briefly internet.   7M
                                (OR)
2. a) Explain the history of telecommunications.   7M
    b) With neat sketch explain the operation of telephone network   7M

<u>UNIT-2</u>

3. a) Draw the neat sketch of General Block schematic of communication system and
       Explain its operation   7M
    b) Write the differences between analog and digital communication systems.   7M
                                (OR)
4. a) Define modulation. What are the various types of modulation? what is the need for
       modulation   7M
    b) With neat block diagram explain the operation of pulse code modulation.   7M

<u>UNIT-3</u>

5. a) With neat block diagram explain the operation of OFC System   7M
    b) What are the various elements required in designing OFC system. Explain each
       element.   7M
                                (OR)
6. a) Write the uses of optical fiber in communication   6M
    b) Explain Principle and working of OFC system   8M

<u>UNIT-4</u>

7. a) Explain Satellite communication link block diagram   7M
    b) What is the use of satellite in telecommunications   7M
                                (OR)
8. a) explain launching of Satellite from earth station   9M
    b) Classification of satellite according to applications   5M

<u>UNIT-5</u>

9.   Discuss briefly TDMA   14M

                                (OR)
10. a) Write short notes on GSM   7M
    b) Write short notes on Recent Trends/Developments in wireless communication system 7M

K.S.R.M. COLLEGE OF ENGINEERING (AUTONOMOUS), KADAPA
Model Question Paper
(18OE503) PYTHON PROGRAMMING
B.Tech. VII Semester (Open Elective-2) (R18) Degree Examinations

Time: 3 Hrs.   **Max. Marks: 70**

Note: Answer any **FIVE** questions choosing **ONE** question from each unit.
   All questions carry **Equal** marks.

UNIT - I

1. a) Explain features of python programming language in detail.   7M
   b) Explain Input and Output statements in python with suitable programming
      examples.   7M

(OR)

2. a) Explain in detail about the various operators in Python with suitable
      examples.   7M
   b) What are the different data types available in Python, Explain in detail   7M

UNIT-II

3. a) Explain pass and assert statements with suitable examples   7M
   b) Why we require loops? Explain different types of loops in Python with suitable
      Python programs   7M

(OR)

4. a)Write a Python program to design arithmetic calculator based on user choice
      like 1. Addition 2. Subtraction 3. Multiplication 4. Division   7M
   b) What is an array? Explain array methods with suitable examples.   7M

UNIT-III

5. a) Explain local and global variables with a suitable python program.   7M
   b) Explain the following with a suitable python program.   7M
      a) filter ( )   b) map( )   c) reduce( )

(OR)

6. a) Can a function return multiple values? If yes, Explain with a suitable
      python program   7M
   b) What is recursion? Write a python program to find factorial of a given number
      using recursion.   7M

UNIT-IV

7. a) Explain list methods with suitable examples   7M
   b) Write a python program to find number of occurrences of each letter in a string
      using dictionary.   7M

(OR)

8. a) Write a Python program on the following concepts.
            i) Write data into a file ii) read data from a file   7M
   b) Write a python program to insert an element into a tuple.   7M

UNIT-V

9. a) Can python support multiple inheritances? If yes, explain with a suitable python
      program.   7M
   b) What is an operator overloading? Explain operator overloading with a suitable
      example.   7M

(OR)

10. a) What is an abstract class? Implement abstract class with a suitable python
       program.   7M
    b) What is constructor? Explain constructor with a suitable python program. 7M

Time: 3 Hrs.   Max. Marks: 70

Note: Answer any **FIVE** questions choosing **ONE** question from each unit.
        All questions carry **Equal** marks.

UNIT-I

1. a) What are the different types of Lists in HTML and discuss with one example. 7M
    b) How to create a form in HTML? Explain with an example.   7M

(OR)

2. a) Explain the elements of table tag with an example.   7M
    b) Explain about Frames in HTML.   7M

UNIT-II

3. Write a detailed note on different types of operators available in JavaScript.   14M

(OR)

4. Explain how to create objects in JavaScript with example?   14M

UNIT-III

5. Explain Java AWT basics. Explain the syntax of Text Area layout in AWT package.
                                                                                                             14M

(OR)

6. Write and Explain java swing program to implement Labels and Buttons.   14M

UNIT-IV

7. a) What is web server? Write notes on Tomcat server.   7M
    b) Explain in detail about format of an HTTP-GET and POST requests.   7M

(OR)

8. a) What is a Servlet? Explain lifecycle of a Servlet. Illustrate with an example
       program.   7M
    b) What is a cookie? Give the information that is saved for cookie on the user's
       machine.   7M

UNIT-V

9. List and Explain the steps involved in a basic JDBC program.   14M

(OR)

10. Explain JSP application design with suitable example?   14M

Time: 3 Hrs.   Max. Marks: 70

Note: Answer any **FIVE** questions choosing **ONE** question from each unit.
        All questions carry **Equal** marks.

UNIT-I

1.   A) What is Operating System? Explain different functions of an operating system.
                                                                                        7M
      B) Explain System calls in details?   7M

(OR)

2.   A) Explain Time sharing and multiprogramming systems?   7M
     B) Explain operating system structure in detail?   7M

UNIT- II

3.   A) What is a process? Explain various process states.   7M
         B) Explain FCFS and SJF scheduling algorithms with an example.   7M

(OR)

4.   A)What is process synchronization? Explain different solutions for critical section
      problem.   7M
      B) Explain semaphore concept with an example.   7M

UNIT-III

5.   A) Write about Segmentation?   7M
         B) Explain hieratical & hash page table?   7M

(OR)

6.   Consider the following page-reference string:0,1,2,3,0,1,2,3,0,1,2,3,4,5,6,7. How many
      page faults occur for the following page replacement algorithms, assuming Frame
      count=3

      i)FIFO   ii) LRU iii) OPTIMAL   14M

UNIT-IV

7.A) What is deadlock? Explain the necessary conditions for the deadlock to   occur.   7M
B) Describe Banker's algorithm to avoid a deadlock.   7M

(OR)

8. A) explain Tree Structure and Acyclic Graph directory structure   7M

   B) What is file? Explain file system mounting.   7M

UNIT –V

9. What is protection? Explain goals, principles and domain of protection.   7M

(OR)

10. What is access matrix? Discuss access matrix implementation techniques.   14M

Question Paper Code: 18OE2603   **College Code: 9Y**

K.S.R.M. COLLEGE OF ENGINEERING: : KADAPA.
(Autonomous)
VII Sem (R18) Model Question paper– October/November 2021
OPEN ELECTIVE- ENGLISH – PROFESSIONAL COMMUNICATION
(Common to all branches)

Time: 3 Hrs.   **Max. Marks: 70**

Note: Answer all <u>FIVE</u> Units. All questions carry equal marks. (5x14 =70)

<u>**UNIT-1**</u>

1. a) What is the significance of Technical Communication?   **7M**

   b) Discuss the structure of conditional clauses with examples.   **4 M**

   c) Give synonyms of the following   **3 M**

      i) gloomy   ii) magnificent   iii) comprehend

(OR)

2. a) Mention various types of compound words and give at least 3 examples for each.   **7 M**

   b) Convert the voice of the following sentences   **4 M**

      i) Bees make honey

      ii) Let the classes be attended regularly

      iii) It is believed that the earth is round

      iv) They have finished the work.

   c) What is verbal analogy and give at least three as examples with explanation?   **3 M**

<u>**UNIT-2**</u>

3. What are SQ3R and PQRST Methods and explain them?   **14 M**

(OR)

4. a) Explain the various styles of reading.   **7 M**

   b) List out the hints step by step for better understanding of comprehension.   **7 M**

<u>**UNIT-3**</u>

5. a) What are the techniques to be adopted for effective oral presentation ?   **7 M**

   b) How visuals are important in presentation?   **7M**

(OR)

6. a) Mention the guidelines for effective public speech.   **7 M**

   b) What strategies are to be adopted while participating in Group Discussion?   **7 M**

7. What are the barriers of listening and how to develop effective listening skills?   **14 M**

(OR)

8. a) Mention various types of listening skills.   **7 M**

   b) How to listen effectively to classroom lectures**?**   **7 M**

UNIT-5

9. a) How formal writing is different from informal writing**?**   **7 M**

   b) Post - COVID impact in India. .   **7 M**

(OR)

10. Correct the following sentences.   **14 M**

    a) My uncle together with his friends have arrived.

    b) None of the three candidates have known the answer.

    c) The teacher informed that oil floated on water.

    d) If I am the MLA I would solve the problems.

    e) He will complete the work by tomorrow.

    f) He is suffering with fever.

    g) The student left the class after the bell was given.

    h) He sold his bike who is very old.

    i) They had given us the information about his picnic.

    j) He discussed about the whole matter.

    k) You must listen your teacher's instructions.

    l) He wrote as my instructions.

    m) I look forward to receive your e-mail.

    n) Unless you do not apologize I will not excuse you.

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Code: 18OE2604
KSRM COLLEGE OF ENGINEERING, KADAPA
(AUTONOMOUS)
B. TECH. VII SEM OPEN ELECTIVES (R18)
SUB: Digital & Social Media Management
MODEL PAPER

TIME: 3HRS   **Max. Marks: 70**

Note: Answer any *five* of the following
Choosing *one* from each unit

UNIT-I		
1.(a)	Define Digital Marketing. Explain the types of web presences.	7M
(b)	What are the major differences between traditional and digital marketing?	7M
	(OR)	
2.	What is marketing environment? Explain internal and external environment.	14M
UNIT-II		
3.	What is Fulfilment ? Explain fulfilment strategies in digital marketing.	14M
	(OR)	
4.	How do you integrate online and offline marketing strategies? Explain.	14M
UNIT-III		
5.(a)	What do you mean by social media monitoring?	7M
(b)	Describe the various social media marketing tools.	7M
	(OR)	
6.	What are various goals of social media marketing? Explain in brief?	14M
UNIT-IV		
7.	Explain the various text – voice based tools available in mobile marketing	14M
	(OR)	
8.	Express your views on the present and future of Mobile Marketing in India.	14M
UNIT-V		
9.(a)	What are the content marketing channels ?	7M
(b)	What is web analytics? Explain various web analytics tools with proper examples.	7M
	(OR)	
10.(a)	Explain various methods of analyzing social media data.	7M
(b)	What ways can you measure social media return on investment (ROI) ?	7M

K.S.R.M COLLEGE OF ENGINEERING(AUTONOMOUS), KADAPA
MODEL QUESTION PAPER
FOUR YEAR B. TECH DEGREE EXAMINATIONS
B. TECH VII SEMESTER REGULAR EXAMINATION
SUB: FUEL TECHNOLOGY
(Open Elective)

Time : 3hrs   Max marks :70M

Answer any Five questions choosing one question from each unit. (14x5=70M)

UNIT-I

1. (a) Define fuel and classify fuels   (7M)
   (b) Outline the characteristics of an ideal fuel   (7M)

(Or)

2. (a) Define Calorific Value and write short notes on Gross Calorific and Net Calorific value   (7M)
   (b) Differentiate Solid, Liquid & Gaseous fuels.   (7M)

UNIT-II

3. (a) Determine the Calorific value of solid fuel by Bomb Calorimeter with a neat diagram.   (10M)
   (b) Write short notes on advantages & disadvantages of solid fuels   (4M)

(Or)

4. (a) Explain the manufacture of metallurgical Coke by Otto Hoffmann Byproduct method.   (8M)
   (b) Write notes on classification of Coal by rank.   (6M)

UNIT-III

5. (a). Illustrate Refining of petroleum with a neat diagram   (8M)
   (b). Write notes on advantages and disadvantages of liquid fuels   (4M)

(Or)

6. Explain the synthesis of Synthetic petrol by Fischer-Tropsch method and Bergius process.   (14M)

UNIT-IV

7. a) Outline the preparation, properties & uses of Producer gas.   (8M)
   b) Write short notes on characteristics of gaseous fuels   (6M)

(Or)

8. Determine calorific value of gaseous fuel by Junker's gas calorimeter with a neat diagram.   (14M)

UNIT-V

9. (a) Summarize the effects of exhaust gas emissions on environment and humans   (8M)
   (b) Write notes on merits and demerits of alternate fuels.   (6M)

(Or)

10. (a) Outline the uses of CNG and LPG fuels   (6M)
   (b) Explain the types and applications of biofuels   (8M)

Time: 3 Hrs.   Max. Marks: 70

Note: Answer any **FIVE** questions choosing **ONE** question from each unit.
        All questions carry **Equal** marks.

UNIT I

1. a)Illustrate OSI reference model with a neat Diagram.   10M
    b) Discuss about Network Hardware.   4M

(OR)

2. a)Compare and contrast the OSI and TCP/IP reference models.   7M
    b) Explain about Various Transmission Media in Physical Layer with a neat Sketch.
                                                                             7M

UNIT II

3. a) Write anotes on design issues of Data Link Layer.   9M
    b) Explain about Ethernet.   5M

(OR)

4. Explain about Sliding Window Protocols.   14M

UNIT III

5. a) Explain Shortest Routing Path Algorithm with an Example.   9M
    b) Explain about Quality of Service.   5M

(OR)

6. a)Write anotes on design issues of Network Layer.   8M
    b)Explain about Tunneling.   6M

UNIT IV

7. Explain about the Internet Transport Protocols.   14M

(OR)

8. a)Write a notes on Congestion Control.   7M
    b) Explain about the Transport Service.   7M

UNIT V

9. a) Write notes on E-Mail.   8M
    b) Write about Domain Name System.   6M

(OR)

10. Explain in detail about World Wide Web.   14M