

H.T No:

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R18

Course Code: C30166



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech IV Semester Regular/Supplementary Examinations August-2023

Course Name: **BUSINESS ETHICS & CORPORATE GOVERNANCE**

(Common for EEE, ECE, CSE, IT, CSC, CSM, CSD, AID & AIM)

Date: 07.08.2023 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. Can business ethics be taught and trained? 2 M
2. Write in short about moral development. 2 M
3. Ethics in HRM. 2 M
4. Ethics of health care services. 2 M
5. Cyber space. 2 M
6. Ethical dimensions of cyber crimes. 2 M
7. Does good governance really matters to corporations? 2 M
8. Write in short about Board committees. 2 M
9. Corporate risk. 2 M
10. Effective corporate governance frame work. 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Discuss the five myths about business ethics. 10M
- OR**
11. B). Explain the kohlberg's study and carol Gilligan's theory. 10M
12. A). Explain the ethics of finance and accounting professionals. 10M
- OR**
12. B). Elaborate the concept of ethics of media marketing and ethical dilemma. 10M
13. A). Discuss the social, political issues in the cyber space. 10M
- OR**
13. B). Discuss mindset and skills of hackers and other criminals. 10M
14. A). Explain the corporate governance in India-board structures. 10M
- OR**
14. B). Explain the process and evaluation of corporate governance. 10M
15. A). Discuss role of corporate governance in managing the risks. 10M
- OR**
15. B). Explain the internal auditing's role in corporate governance. 10M

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R18

Course Code: A30559



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech IV Semester Regular/Supplementary Examinations August-2023

Course Name: INTRODUCTION TO DATA SCIENCE

(Common for ECE, CSE, IT, CSC, CSM & AIM)

Date: 07.08.2023 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. Elaborate the concept of Big Data. 2 M
2. Explain the concept of NumPy in Python. 2 M
3. Define the term Visualization of data. 2 M
4. Distinguish between Bar Charts and Line Charts. 2 M
5. Explain the importance of Naïve Bayes. 2 M
6. Illustrate the concept of K- nearest Neighbors Classifications with suitable example. 2 M
7. Briefly elaborate the importance of Deep Learning. 2 M
8. Examine the Induction rule in brief. 2 M
9. Demonstrate the application of Data Science in Weather Forecasting. 2 M
10. Analyze implementation of Data Science in the Stock Market. 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Explain about Matplotlib Python Programming tool kit for data science. 10M
- OR**
11. B). Classify the important concepts of Web Scraping. 10M
12. A). Explain about Bar charts and line charts with suitable diagrams. 10M
- OR**
12. B). Compare and contrast the differences between Cleaning and Munging techniques. 10M
13. A). Compare and contrast the differences between Supervised and Unsupervised Learning. 10M
- OR**
13. B). Distinguish between Support Vector Machine and Logic regression. 10M
14. A). Outline the concept of Decision trees and random forest. 10M
- OR**
14. B). Interpret the concept of Neural Networks for problem solving. 10M
15. A). Illustrate the applicability of Object Recognition in Data Science with suitable example. 10M
- OR**
15. B). Classify the importance of Real Time Sentiment Analysis. 10M

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Course Code: A30531



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech IV Semester Regular/Supplementary Examinations August-2023

Course Name: PYTHON PROGRAMMING

(Common for EEE, ME, ECE, CSE, IT, CSC & CSM)

Date: 07.08.2023 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

- | | |
|--|-----|
| 1. Identify the difference between the if, if-else, if-elif-else statements. | 2 M |
| 2. Outline the Characteristics of functions and modules. | 2 M |
| 3. What are local variable and how they are used? | 2 M |
| 4. Show the need of Void function. | 2 M |
| 5. Summarize about two dimensional Lists. | 2 M |
| 6. Discuss the need of Recursion. | 2 M |
| 7. Determine the Benefits of Instances. | 2 M |
| 8. Distinguish between Classes and Objects. | 2 M |
| 9. Classify the need of Turtle graphics. | 2 M |
| 10. How to use Widgets in python? | 2 M |

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- | | |
|---|-----|
| 11.A). i) Identify the most Commonly used Repetition structures in Python | 5M |
| ii) Write a Python program to convert height in feet and inches to cm. [1 feet = 12 inch and 1 inch= 2.54 cm] (Sample input: 2 feet 7 inch Sample output: 78.74 cm) | 5M |
| OR | |
| 11. B). Summarize various operators, built-in functions and standard library modules that deals with python numeric type. | 10M |
| 12. A). i) Outline the declaration and calling of functions in Python? Illustrate with an example. | 5M |
| ii) Demonstrate the process of storing functions in Modules. | 5M |
| OR | |
| 12. B). i) Write a Python program to print all prime numbers less than 256 using Functions | 5M |
| ii) What type of parameter passing is used in Python? Justify your answer with sample programs. | 5M |
| 13. A). i) Demonstrate the process finding items in Lists with the in Operator. | 5M |
| ii) Illustrate a Python program that counts the number of occurrences of a letter in a string, using dictionaries. | 5M |
| OR | |
| 13. B). i) What is a list in Python? How to create nested lists? Demonstrate how to create and print a 3-dimensional matrix with lists. | 5M |
| ii) Write a python program to convert 'a, e, i, o, u' letters in a string with 'w, x, y, z, p' using string translate method. | 5M |

(P.T.O..)

14. A). i) Classify the Techniques for Designing Classes. 5M
ii) Elaborate the implementation of hierarchical inheritance in Python, with a program. 5M

OR

14. B). i) Construct a python program to show the polymorphism in Python. 5M
ii) How does Instances are created in python show with an example? 5M

15. A). i) Can you categorize the different widgets in GUI designing. 5M
ii) Show the implementation of two dimensional shapes. 5M

OR

15. B). i) Elaborate the implementation of Radio Buttons, labels and Check Buttons in Python. 5M
ii) How to Develop a python program to show Button widgets and Info Dialog boxes? 5M

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R18

Course Code: A30538



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech IV Semester Regular/Supplementary Examinations August-2023

Course Name: DEEP LEARNING

(Common for ECE, CSC & CSD)

Date: 07.08.2023 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. Explain briefly about Deep feedforward networks. 2 M
2. Explain briefly about forward propagation. 2 M
3. Summarize L^2 Parameter Regularization. 2 M
4. Demonstrate Dropout method. 2 M
5. Illustrate Empirical Risk Minimization. 2 M
6. Explain about Limited Memory BFGS. 2 M
7. Show the convolution operation. 2 M
8. Explain about the Gabor functions. 2 M
9. Outline the Large-Scale Deep Learning Applications. 2 M
10. Explain about Natural Language Processing (NLP). 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Choose the type of hidden unit to use in the hidden layers of the model. 10M
- OR**
11. B). Make use of Back-Propagation and train a MLP. 10M
12. A). Apply the early stopping meta-algorithm to determine at what objective value we start to overfit, then continue training until that value is reached. 10M
- OR**
12. B). Explain about L^1 Regularization. 10M
13. A). Identify the challenges in Neural Network Optimization. 10M
- OR**
13. B). Choose Newton's Method for optimization of deep models. 10M
14. A). Show that Convolution and Pooling as an Infinitely Strong Prior. 10M
- OR**
14. B). Summarize the Convolution Operation. 10M
15. A). Identify the applications of Deep Learning in Computer Vision. 10M
- OR**
15. B). Identify the applications of Deep Learning in NLP. 10M

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R18

Course Code: A30473



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech IV Semester Regular/Supplementary Examinations August-2023

Course Name: **IMAGE PROCESSING**

(Common for CSE, IT, CSC, CSM, CSD, AID & AIM)

Date: 07.08.2023 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

- | | |
|---|-----|
| 1. What is meant by sampling and quantization in an image? | 2 M |
| 2. Find the 2D-DCT of the matrix $f(m, n) = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$. | 2 M |
| 3. What do you mean by point processing? | 2 M |
| 4. Define spatial filtering. | 2 M |
| 5. Draw the block diagram of degradation model and write the equation for it. | 2 M |
| 6. What is meant by point spreading function in image degradation? | 2 M |
| 7. Why Laplacian of gaussian edge detector is preferred than other edge detectors? | 2 M |
| 8. What is a hit-or-miss transform? | 2 M |
| 9. What is the need for image compression? | 2 M |
| 10. Mention the classification of image compression methods. | 2 M |

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- | | |
|---|-----|
| 11.A). Explain various neighbors, adjacency and distance measure between the pixels. | 10M |
| OR | |
| 11. B). i) Mention the different properties of 2D-DFT.Explain any two of them. | 6M |
| ii) Compute the Hadamard Transform matrix for N=4. | 4M |
| 12. A). Justify the statement "Median filter is an effective tool to minimize salt-and -pepper noise" with suitable example | 10M |
| OR | |
| 12. B). i) Discuss about ideal high pass and Butter worth HPF. | 6M |
| ii) What is meant by image sharpening? Mention its types. | 4M |
| 13. A). Explain inverse filter used in image restoration. Mention its drawbacks. | 10M |
| OR | |
| 13. B). Explain the iterative method of image restoration. Mention its advantages. | 10M |
| 14. A). i) Explain about thresholding technique in image segmentation. | 5M |
| ii) Explain how regions are growing in region-based segmentation. | 5M |
| OR | |
| 14. B). i) Write the algorithms for Dilation and Erosion operations in image morphology. | 5M |
| ii) Mention the properties of opening and closing operations in image morphology. | 5M |

(P.T.O..)

15. A). A source emits four symbols {a, b, c, d} with the probabilities {0.4,0.2,0.1,0.3}. Construct arithmetic coding and decode the word 'DAD'. 10M

OR

15. B). Explain lossy predictive coding with suitable example. 10M

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R18

Course Code: A30007



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech IV Semester Regular/Supplementary Examinations August-2023

Course Name: NUMERICAL TECHNIQUES & PROBABILITY DISTRIBUTIONS

(Common for CE, ME, CSE, IT, CSC & CSD)

Date: 09.08.2023 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. Find an iterative formula for $\frac{1}{N}$, $N > 0$ using Newton-Raphson method. 2 M
2. What is Lagrange's interpolation formula? 2 M
3. What is the order and error of Trapezoidal rule? 2 M
4. Find $y(0.4)$ if $\frac{dy}{dx} = x^2 - 2xy$, $y(0) = 2$ with the assumption $h = 0.25$ using Euler's method. 2 M
5. Find the Laplace transform of $t \cosh at$. 2 M
6. Find the inverse Laplace transform of $\frac{1}{s(s^2+a^2)}$. 2 M
7. If X is a discrete RV having the following probability distribution 2 M

x	1	2	3
$p(x)$	k	k	k^2

Find the value of k .
8. Find $P(X = 2)$ if X is binomially distributed with mean 5 and standard deviation 2 2 M
9. What is meant by contingency table? 2 M
10. List any two uses of chi-square test. 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Determine the positive root of $x^3 - 4x - 9 = 0$ by bisection method. 10M

OR

11. B). Use Newton's formula to estimate the polynomial $f(x)$ satisfying the following data, and hence find the value of $f(4)$ 10M

x	0	1	2	3
$f(x)$	1	2	1	10

12. A). Divide the range in to 6 equal parts, to find $\int_0^6 \frac{dx}{1+x^2}$ using Trapezoidal and Simpson's rule. Compare with the actual integration. 10M

OR

12. B). Examine the value of $y(0.1)$, $y(0.2)$ if $\frac{dy}{dx} = x - y^2$, $y(0) = 1$ using Fourth order Runge-Kutta method (assume $h = 0.1$). 10M

(P.T.O..)

13. A). Identify the Laplace transform of the “square wave” function $f(t)$ is defined by 10M
$$f(t) = \begin{cases} k & \text{if } 0 \leq t \leq a \\ -k & \text{if } a < t \leq 2a \end{cases} \text{ and } f(t + 2a) = f(t) \text{ for all } t.$$

OR

13. B). Solve $y'' + 4y' + 3y = e^{-t}$ given $y(0) = 1 = y'(0)$, using Laplace transform. 10M

14. A). A random variable gives measurements X between 0 and 1 with probability density 10M
function $f(x) = 12x^3 - 21x^2 + 10x, 0 \leq x \leq 1$. Find the following:

(i) $P\left[X \leq \frac{1}{2}\right]$ and $P\left[X > \frac{1}{2}\right]$

(ii) the value of k such that $P[X \leq k] = \frac{1}{2}$.

OR

14. B). Messages arrive at a switchboard in a Poisson manner at an average rate of six per hour. 10M
Find the probability for each of the following events:

- i). Exactly two messages arrive within one hour
- ii). No message arrives within one hour
- iii). At least three messages arrive within one hour.

15. A). Test the significance of the difference between the means of the samples, drawn from two 10M
normal populations with same S.D. from the following data.

	Size	Mean	S.D.
Sample-1	100	61	4
Sample-2	200	63	6

OR

15. B). The theory predicts that the proportion of beans in the four groups A, B, C and D should 10M
be $9 : 3 : 3 : 1$. In an experiment among 1600 beans, the numbers in the four groups were
882, 313, 287 and 118. Do the experimental results support the theory?

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R18

Course Code: A36203



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech IV Semester Regular & Supplementary Examinations August-2023

Course Name: **CYBER SECURITY**

(CSC)

Date: 11.08.2023 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. Define Cyber Security. 2 M
2. Differentiate the passive attacks and active attacks. 2 M
3. What are the weak areas of the ITA 2000? 2 M
4. What is the need for Computer Forensics? 2 M
5. Define proliferation in mobile devices. 2 M
6. What type of registry attacks on Mobile device? 2 M
7. Define the insider attack. 2 M
8. List the key challenges in organizations related to Information threats. 2 M
9. What is the key difference between data security and data privacy? 2 M
10. List any 4 Biggest Cyber Attacks in India. 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Explain seven layers of Cyber Security in detail. 10M
- OR**
11. B). i) Discuss about cyber wars. 5M
ii) Explain the Internet Governance – Challenges and Constraints. 5M
12. A). i) Write a short note on Antiforensics. 5M
ii) Discuss the phases in Computer forensics/Digital forensics in detail. 5M
- OR**
12. B). i) What is the Chain of Custody concept? How it is related to forensics? 5M
ii) Write a short note on Network Forensics. 5M
13. A). Explain the trends in mobile credit card frauds in wireless computing. 10M
- OR**
13. B). What are the organizational measures for handling mobile devices? 10M
14. A). Explain in detail about Cyber Terrorism and its impact. 10M
- OR**
14. B). Explain in detail about Security and privacy implications from cloud computing. 10M
15. A). Explain ethical dimensions in cyber crime and cyber security. 10M
- OR**
15. B). What are the different data privacy attacks and explain the counter measures. 10M

H.T No:

R18

Course Code: A30516



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech IV Semester Regular & Supplementary Examinations August-2023

Course Name: OPERATING SYSTEMS

(Common for CSC & CSM)

Date: 14.08.2023 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. Differentiate between time sharing and multiprogramming systems. 2 M
2. List the various services provided by an operating system. 2 M
3. Sketch the process control block with its components. 2 M
4. Define Processor affinity and give its types. 2 M
5. State the four necessary conditions for a deadlock situation to arise. 2 M
6. What is race condition? 2 M
7. Consider a logical address space of 8 pages of 1024 words each, mapped onto a physical memory of 32 frames. 2 M
How many bits are there in the physical address and logical address respectively?
8. Differentiate between internal fragmentation and external fragmentation. 2 M
9. Identify the purpose of the following system calls with respect to file system implementation: 2 M
a) ioctl() b) lseek()
10. What is demand paging? 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Explain the components of a computer system with a neat block diagram and discuss the role of operating system from the user and system point of view. 10M
- OR**
11. B). Explain the classification of system calls with its functions. 10M
12. A). i) Show the queueing diagram representation of process scheduling. 5M
ii) Show the classification of multithreading models with neat diagrams and explain the thread cancellation scenarios. 5M
- OR**
12. B). Consider the following set of processes, with the length of the CPU-burst time given in milli seconds: 10M

Process	Burst Time
P1	10
P2	1
P3	2
P4	5

- i) Draw the Gantt's chart illustrating the execution of these processes using FCFS, SJF and Round Robin (with quantum= 1) scheduling techniques.
- ii) Find the turnaround time and waiting time of each process using the above techniques.

(P.T.O..)

13. A). Examine how semaphore is used to provide a solution for the dining-philosophers problem that ensures freedom from deadlocks. 10M

OR

13. B). Show how deadlock can be determined using resource allocation graph with suitable examples and its algorithmic representation. 10M

14. A). Consider five memory partitions of size 100 KB, 500 KB, 200 KB, 450 KB and 600 KB in same order. If sequence of requests for blocks of size 212 KB, 417 KB, 112 KB and 426 KB in same order come, then which of the following algorithm makes the efficient use of memory? 10M

- i) Best fit algorithm
- ii) First fit algorithm
- iii) Worst Fit algorithm

OR

14. B). Consider the Pages referenced by the CPU in the order are 6, 7, 8, 9, 6, 7, 1, 6, 7, 8, 9, 1 10M

Identify the number of page faults would occur for the following replacement algorithms, assuming the number of page frames as three and four.

Remember all frames are initially empty, so your first unique pages will all cost one fault each.

- i) LRU replacement
- ii) FIFO replacement
- iii) Optimal replacement

15. A). Explain any two schemes used for defining the logical structure of a directory with its advantages and disadvantages. 10M

OR

15. B). Explain any two types of file allocation methods that are used for effective utilization of disk space and for faster accessing of files with neat diagrams. 10M

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R18

Course Code: A30228



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech IV Semester Regular/Supplementary Examinations August-2023

Course Name: **BASIC ELECTRICAL ENGINEERING**

(Common for CSE, IT, CSC, CSD & AID)

Date: 16.08.2023 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

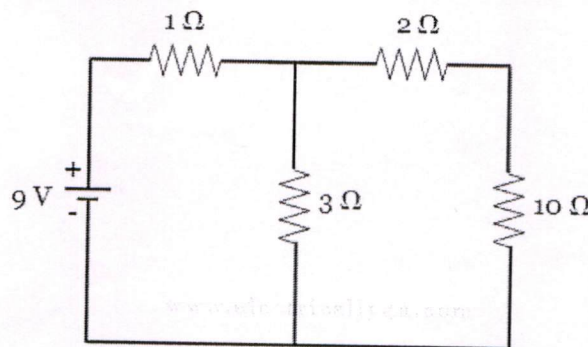
1. Define KVL. 2 M
2. Two resistors of 5 and 10 ohms are connected in parallel. Find the equivalent resistance. 2 M
3. The phase difference between voltage and current in a pure capacitor is _____. 2 M
4. Define peak factor. 2 M
5. Name the different types of DC motors. 2 M
6. What is the DC generator principle? 2 M
7. Define transformation ratio. 2 M
8. What is the purpose of using breather in transformer? 2 M
9. Draw the torque slip characteristics of 3-phase induction motor. 2 M
10. A 4 pole 50 Hz induction motor is running at 1400 rpm. What is the synchronous speed and slip? 2 M

PART-B

Answer the following. Each question carries TEN Marks.

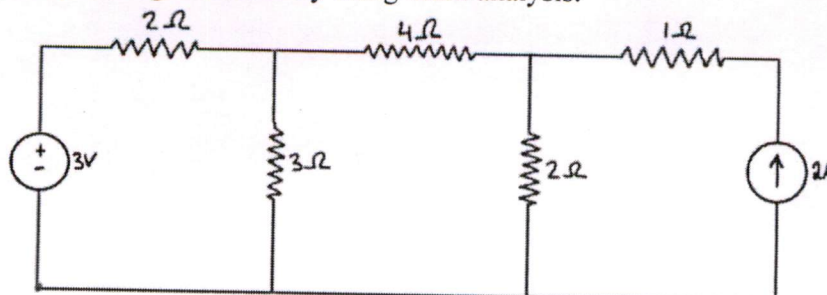
5x10=50M

- 11.A). Solve the given circuit to find the current through $10\ \Omega$ using Thevenin's Theorem. 10M



OR

11. B). Find the current through resistors by using mesh analysis. 10M



(P.T.O.)

12. A). Derive the relation between phase and line quantities in case of three phase delta connected system. 10M

OR

12. B). Derive the RMS and average value of alternating quantity. 10M

13. A). Explain the construction of DC machine. 10M

OR

13. B). Derive the EMF equation of DC generator. 10M

14. A). A 400 kVA transformer has a primary winding resistance of 0.5 ohm and a secondary winding resistance of 0.001 ohm. The iron loss is 2.5 Kw and the primary and secondary voltages are 5 kV and 320 V respectively. If the power factor of the load is 0.85, determine the efficiency of the transformer (i) on full load and (ii) on half load. 10M

OR

14. B). Explain the operation and principle of single phase transformer. 10M

15. A). Explain the construction of three phase induction motor. 10M

OR

15. B). Explain capacitor start and run induction motor and shaded pole induction motor. 10M

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R18

Course Code: A30514



CMR COLLEGE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)

B.Tech IV Semester Regular & Supplementary Examinations August-2023

Course Name: **COMPUTER NETWORKS**

(CSC)

Date: 18.08.2023 AN

Time: 3 hours

Max.Marks: 70

(Note: Assume suitable data if necessary)

PART-A

Answer all TEN questions (Compulsory)

Each question carries TWO marks.

10x2=20M

1. Why do you need private IP address? Can two organizations have the same IP address? Justify. 2 M
2. Outline the need for switching. 2 M
3. What is the maximum overhead in byte-stuffing algorithm? 2 M
4. What is the need for fragmentation? 2 M
5. What is the number of bits in an IPV6 address and which type of service is provided? 2 M
6. How congestion occurs in a network? 2 M
7. Distinguish between error control and flow control. 2 M
8. Define network and Explain types of networks? 2 M
9. Write the services of transport layer. 2 M
10. Define WWW. 2 M

PART-B

Answer the following. Each question carries TEN Marks.

5x10=50M

- 11.A). Explain with a neat diagram for TCP / IP Protocol suite communication in Application, Transport, Network and Data link layers, to exchange information between two end systems located in two different remote locations by crossing two routers in between. At each layer, show the addition/ deletion of headers. 10M
- OR**
11. B). Discuss circuit switching and packet switching with an example. 10M
12. A). Analyse the concept of error detection and correction mechanism with an example. 10M
- OR**
12. B). Categorize the collision-free protocols with examples. 10M
13. A). Discuss Distance Vector Routing with an example and with necessary diagrams. 10M
- OR**
13. B). Examine the working procedure of the Address resolution protocol. 10M
14. A). Compare the features of TCP and UDP. Examine the TCP header format. 10M
- OR**
14. B). Examine the packet format of Stream Control Transmission Protocol with its fields. How are the data transferred with three way handshaking? 10M

(P.T.O.)

15. A). Evaluate the process of message transfer using Simple Mail Transfer Protocol. 10M

OR

15. B). Explain with an example for each of the following three protocols, give the sequence of events which will take place during communication. 10M

- i). HTTP
- ii). FTP
- iii). SMTP
