



MAHATMA GANDHI INSTITUTE OF TECHNOLOGY (Autonomous)
B.Tech. VII Semester End Examinations
(Common to CSE & IT)
(Model Question Paper)

MR-21

Course Title: Organizational Behaviour
Time: 3 hours

Course Code: MS705HS
Max. Marks : 70

Note: Answer ALL Questions
Part-A (10 x 2 = 20 Marks)

Q. No.	Stem of the Question	M	L	CO	PO
Unit-I					
1. a)	Define Organizational Behaviour	2	1	1	6
1. b)	Explain Attribution Error	2	2	1	6
Unit-II					
1. c)	Describe Job Satisfaction	2	2	2	12
1. d)	Explain Self-Efficacy	2	2	2	12
Unit-III					
1. e)	Define Communication	2	1	3	10
1. f)	What is intra-individual conflict?	2	2	3	6
Unit-IV					
1. g)	What is empowerment in a workplace context? Name one benefit of empowerment for employees.	2	3	4	6
1. h)	Define legitimate power in an organization.	2	3	4	6
Unit-V					
1. i)	Differentiate between leadership traits and leadership behaviors?	2	4	5	6
1. j)	What is socio-technical design?	2	4	5	6

Part-B (5 x 10=50 Marks)

Q. No.	Stem of the Question	M	L	CO	PO
Unit-I					
2. a)	Discuss the relationship between Organizational Behaviour and other disciplines.	5	2	1	6
2. b)	Describe the nature and importance of Perception	5	2	1	6
OR					
2. c)	Explain Weiner's attribution model	5	2	1	6
2. d)	Describe strategies of Impression Management.	5	2	1	12
Unit-II					
3. a)	Explain the nature and dimension of attitudes	5	2	2	8
3. b)	Distinguish between Maslow's and Herzberg's theory of motivation.	5	4	2	12
OR					
3. c)	Critically evaluate the determinants of Personality.	5	6	2	8
3. d)	Describe Emotional Intelligence and methods to improve it.	5	4	2	12
Unit-III					
4. a)	Differentiate between formal and informal communication.	5	4	3	10
4. b)	Distinguish between Individual and Group Decision Making.	5	4	3	9
OR					
4. c)	Describe strategies to cope with stress and conflict in the workplace.	5	4	3	6
4. d)	Illustratively explain the different types of conflict in organizations.	5	5	3	6
Unit-IV					
5. a)	Discuss the different types of power in organizations and provide an example for each.	5	3	4	6
5. b)	Describe the process of empowerment and its key determinants.	5	3	4	6
OR					
5. c)	Explain the dynamics and potential dysfunctions of informal groups in an organization.	5	4	4	9

P.T.O.

5. d)	Compare and contrast the nature and functions of groups and teams in organizational settings	5	4	4	9
Unit-V					
6. a)	Discuss how quality of work life (QWL) and high-performance work practices contribute to organizational success.	5	4	5	9
6. b)	Compare and contrast the major leadership theories: Trait theories, Behavioral theories, and Contingency approaches.	5	5	5	9
OR					
6. c)	Analyse how reinforcement and punishment can be applied to influence employee behavior in a workplace setting.	5	5	5	9
6. d)	Discuss the characteristics and effectiveness of different leadership styles: Autocratic, Democratic, and Free-rein.	5	2	5	9

M: Marks; L: Bloom's Taxonomy Level; CO: Course Outcome; PO: Programme Outcome



MAHATMA GANDHI INSTITUTE OF TECHNOLOGY (Autonomous)
B.Tech. VII Semester End Examinations
(Information Technology)
(Model Question Paper)

MR-21

Course Title: Information Security
Time: 3 hours

Course Code: IT701PC
Max. Marks : 70

Note: Answer ALL Questions
Part-A (10 x 2 = 20 Marks)

Q. No.	Stem of the Question	M	L	CO	PO
Unit-I					
1. a)	What are the types of attacks on encrypted message?	2	1	1	1
1. b)	What is cryptanalysis and cryptography?	2	1	1	2
Unit-II					
1. c)	Perform encryption and decryption using RSA Algorithm.for the following. P=7; q=11; e=17; M=8.	2	2	2	2
1. d)	What is the purpose of the S-boxes in DES?	2	1	2	3
Unit-III					
1. e)	Differentiate MAC and Hash function.	2	3	3	2
1. f)	What is X.509 Standard?	2	1	3	1,3
Unit-IV					
1. g)	Give IPSEC AH Format.	2	2	4	2
1. h)	Define S/MIME.	2	1	4	1
Unit-V					
1. i)	List down the four phases of virus.	2	2	5	3
1. j)	List the classes of intruders	2	2	5	2,3

Part-B (5 x 10=50 Marks)

Q. No.	Stem of the Question	M	L	CO	PO
Unit-I					
2. a)	Discuss any TWO Substitution Techniques and list their merits and demerits	5	3	1	2
2. b)	Draw and explain a model for internetwork security	5	3	1	2
OR					
2. c)	Explain the categories of block cipher modes of operation	5	2	1	3
2. d)	Explain various security services	5	2	1	3
Unit-II					
3. a)	Draw the general structure of DES and explain the encryption decryption process	5	3	2	1
3. b)	Explain IDEA algorithm with neat diagram	5	2	2	1
OR					
3. c)	User A and B exchange the key using Diffie-Hellman algorithm. Assume $\alpha=5$ $q=11$ $X_A=2$ $X_B=3$. Find the value of Y_A , Y_B and k .	5	3	2	1
3. d)	Discuss about the objectives of HMAC and its security features	5	2	2	2
Unit-III					
4. a)	Explain the architecture of IP Security	5	2	3	1
4. b)	What is Kerberos? Explain Kerberos version 4 Dialogue.	5	1	3	3
OR					
4. c)	Explain ElGamal digital signature Scheme	5	3	3	2
4. d)	Explain the format of the X.509 certificate	5	2	3	3
Unit-IV					
5. a)	Describe the SSL Specific protocol – Handshake action in detail	5	3	4	1
5. b)	Explain Secure Electronic transaction with neat diagram	5	2	4	2
OR					

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5. c)	What services are provided by IP Sec?	5	1	4	1
5. d)	Explain the modes in ESP	5	2	4	2
Unit-V					
6. a)	Explain any two approaches for intrusion detection	5	2	5	3
6. b)	Explain different types of Viruses with examples	5	2	5	2
OR					
6. c)	Explain firewalls and how they prevent intrusions	5	3	5	2
6. d)	What is Trusted system and Explain data access control	5	1	5	3

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MAHATMA GANDHI INSTITUTE OF TECHNOLOGY (Autonomous)
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MR-21

Course Title: Full stack Development
Time: 3 hours

Course Code: CS712PE
Max. Marks : 70

*Note: Answer ALL Questions
Part-A (10 x 2 = 20 Marks)*

Q. No.	Stem of the Question	M	L	CO	PO
Unit-I					
1. a)	Mention some JavaScript Methods used in Full Stack Development	2	1	1	1
1. b)	Define 'Event Queue' in the context of Node.js.	2	1	1	1
Unit-II					
1. c)	What is JSON, and why is it commonly used in web development	2	1	2	1
1. d)	Compare HTTP and HTTPS protocols in Node.js.	2	2	2	1
Unit-III					
1. e)	Define collections in MongoDB and explain their significance in NoSQL databases.	2	2	3	1
1. f)	List and briefly describe the data types supported by MongoDB.	2	1	3	1
Unit-IV					
1. g)	Describe how to configure a route in Express.	2	2	4	1
1. h)	What are Angular directives? Provide examples.	2	2	4	1
Unit-V					
1. i)	What is the Virtual DOM in React?	2	1	5	1
1. j)	Briefly explain the role of lifecycle methods in React.	2	2	5	1

Part-B (5 x 10=50 Marks)

Q. No.	Stem of the Question	M	L	CO	PO
Unit-I					
2. a)	Explain the basic components of a web development framework with respect to Node.js and Angular stack components. Discuss how they interact within a full stack application.	5	2	1	1
2. b)	Describe the Node.js event model. Provide an example of how it handles asynchronous operations in a web server environment.	5	3	1	1
OR					
2. c)	Compare and contrast React and Angular in the context of full stack development. Discuss their respective advantages and use cases.	5	4	1	1
2. d)	Describe the process of creating a Node.js application.	5	3	1	1
Unit-II					
3. a)	Discuss how Node.js interacts with the file system. Explain how to perform basic file operations such as reading, writing, opening, and closing files, with examples.	5	3	2	1
3. b)	Explain the purpose and usage of additional Node.js modules such as 'os', 'util', 'dns', and 'crypto'. Provide examples of scenarios where each would be used.	5	2	2	1
OR					
3. c)	Describe how to work with JSON in Node.js. Provide an example of reading a JSON file and parsing its content.	5	3	2	1
3. d)	How do you implement HTTP services in Node.js? Describe the basic steps to create a simple HTTP server with a working example.	5	2	2	1
Unit-III					
4. a)	Explain the advantages of using NoSQL databases like MongoDB over traditional relational databases.	5	2	3	1

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4. b)	How do you access and manipulate collections in MongoDB using Node.js? Provide an example of inserting a document into a collection.	5	2	3	1
OR					
4. c)	Describe the steps involved in setting up and configuring a MongoDB environment for a Node.js application. Include considerations for security and performance.	5	2	3	2
4. d)	Discuss the importance of configuring access control in MongoDB. How can access control be implemented effectively? Provide an example.	5	3	3	1
Unit-IV					
5. a)	Explain how to set up a basic Express application and configure routes. Provide an example.	5	3	4	1
5. b)	Describe the process of creating a basic Angular application. Include the steps and commands needed.	5	3	4	2
OR					
5. c)	Explain the use of request and response objects in Express. How do they help in handling HTTP requests? Provide an example	5	2	4	1
5. d)	How can you implement Angular services in a web application? Provide an example of creating and using a service in an Angular project.	5	3	4	2
Unit-V					
6. a)	Explain the need for React in modern web development Discuss how it compares to other front-end frameworks.	5	2	5	1
6. b)	Explain the concept of data flow in React. How do props and state manage data in a React application? Provide examples.	5	2	5	1
OR					
6. c)	Describe the structure of a simple React application. Include an overview of components, state, and props.	5	2	5	1
6. d)	How do you create a React component? Provide an example of both a functional component and a class component, discussing their differences.	5	2	5	2

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MAHATMA GANDHI INSTITUTE OF TECHNOLOGY (Autonomous)
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MR-21

Course Title: Cloud Computing
Time: 3 hours

Course Code: CS716PE
Max. Marks : 70

Note: Answer ALL Questions
Part-A (10 x 2 = 20 Marks)

Q. No.	Stem of the Question	M	L	CO	PO
Unit-I					
1. a)	Define cloud computing and list its essential characteristics	2	1	1	1
1. b)	Explain the concept of virtualization in cloud computing.	2	2	1	1
Unit-II					
1. c)	What are the different deployment models in cloud computing?	2	1	2	2
1. d)	Describe the service models in cloud computing with examples	2	2	2	2
Unit-III					
1. e)	Illustrate the concept of Service Level Agreements (SLA) in cloud computing	2	3	3	3
1. f)	Explain the importance of cloud security.	2	2	3	4
Unit-IV					
1. g)	What is the significance of cloud storage and data management in cloud computing?	2	2	4	3
1. h)	Discuss cloud-based collaboration tools and their benefits.	2	3	4	5
Unit-V					
1. i)	Compare and contrast cloud computing and traditional IT infrastructure.	2	4	3	2
1. j)	How does cloud computing contribute to green computing?	2	3	4	3

Part-B (5 x 10=50 Marks)

Q. No.	Stem of the Question	M	L	CO	PO
Unit-I					
2. a)	Explain in detail the architecture of cloud computing.	5	3	1	1
2. b)	Discuss the benefits and challenges of enterprises adopting cloud computing.	5	4	1	1
OR					
2. c)	Analyze the role of virtualization in cloud computing.	5	4	1	2
2. d)	Evaluate the impact of cloud computing on IT costs.	5	4	1	3
Unit-II					
3. a)	Describe the various cloud service models (IaaS, PaaS, SaaS) with examples.	5	3	2	2
3. b)	Assess the risks associated with cloud deployment models.	5	4	2	2
OR					
3. c)	Explain the process of deploying applications on the cloud.	5	3	2	2
3. d)	Analyze the factors to consider while selecting an organization's cloud deployment model.	5	4	2	3
Unit-III					
4. a)	Explain the different types of Service Level Agreements (SLAs) in cloud computing.	5	3	3	4
4. b)	Discuss the strategies for ensuring data security in cloud computing.	5	4	3	4
OR					
4. c)	Evaluate the importance of compliance in cloud computing environments.	5	4	3	3
4. d)	Analyze the challenges associated with maintaining cloud security.	5	4	3	2
Unit-IV					
5. a)	Describe the architecture of cloud storage systems.	5	3	4	3
5. b)	Discuss the benefits and drawbacks of cloud-based data management.	5	3	4	4

P.T.O.

OR					
5. c)	Explain the process of data migration to the cloud.	5	3	4	2
5. d)	Evaluate the challenges in cloud data storage security.	5	4	4	4
Unit-V					
6. a)	Discuss the economic impact of cloud computing on businesses.	5	3	4	2
6. b)	Explain how cloud computing supports sustainable IT practices.	5	3	2	2
OR					
6. c)	Compare the cost-effectiveness of cloud computing with traditional IT solutions.	5	4	2	3
6. d)	Analyze the role of cloud computing in digital transformation.	5	2	3	3

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MAHATMA GANDHI INSTITUTE OF TECHNOLOGY (Autonomous)
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(Model Question Paper)

MR-21

Course Title: Remote Sensing and GIS
Time: 3 hours

Course Code: CE722OE
Max. Marks : 70

Note: Answer ALL Questions
Part-A (10 x 2 = 20 Marks)

Q. No.	Stem of the Question	M	L	CO	PO
Unit-I					
1. a)	Define a stereoscope.	2	1	1	1, 12
1. b)	Classify of aerial photographs.	2	4	1	1, 12
Unit-II					
1. c)	Compare Sun synchronous and Geosynchronous orbit.	2	4	2	1, 3,12
1. d)	Explain the term IRS with suitable examples.	2	2	2	1, 3,12
Unit-III					
1. e)	What is map projection?	2	1	3	1,2, 3
1. f)	Explain how will you link spatial and attribute data.	2	2	3	1, 2,3
Unit-IV					
1. g)	What is coverage? In which formats you can store?	2	1	4	1,5
1. h)	Illustrate a Geodatabase?	2	1	4	1,5
Unit-V					
1. i)	Explain metadata.	2	5	5	1,5
1. j)	What is meant by Scanning? In which format output will be generated?	2	1	5	1,5

Part-B (5 x 10=50 Marks)

Q. No.	Stem of the Question	M	L	CO	PO
Unit-I					
2. a)	Draw and develop a neat sketch of geometry of a vertical aerial photograph.	5	3	1	1, 12
2. b)	What is vertical exaggeration? How will you determine vertical exaggeration?	5	1	1	1, 12
OR					
2. c)	What is relief displacement of aerial photograph? Explain with a neat sketch.	5	1	1	1, 12
2. d)	Explain how parallax measurements are done using fiducial line.	5	5	1	1, 12
Unit-II					
3. a)	What are the types of scattering? Explain.	5	1	2	1, 3,12
3. b)	Explain and analyse different data collection methods in remote sensing.	5	4	2	1, 3,12
OR					
3. c)	What are the types of resolutions involved in remote sensing? Explain.	5	1	2	1, 3,12
3. d)	What do you mean by digital image processing? Explain basic processes involved.	5	1	2	1, 3,12
Unit-III					
4. a)	Explain different operations performed in GIS.	5	2	3	1,2, 3
4. b)	What is UTM projection? Explain in detail.	5	1	3	1, 2,3
OR					
4. c)	Distinguish between manual digitization and automated digitization.	5	4	3	1,2, 3
4. d)	List the different data analysis methods in GIS? Brief them.	5	4	3	1, 2,3
Unit-IV					

P.T.O.

5. a)	Elaborate the process of TIN generation. Give applications of TIN.	5	3	4	1,5
5. b)	What are the different vector models available? Give advantages of each.	5	1	4	1,5
OR					
5. c)	Analyze the different methods of compacting vector data.	5	4	4	1,5
5. d)	Explain POLYVRT and GBF/DIME model.	5	3	4	1,5
Unit-V					
6. a)	What impact does grid cell size have on the locational accuracy?	5	1	5	1,5
6. b)	Elaborate how you will store point, line and area in raster system.	5	3	5	1,5
OR					
6. c)	Explain run length encoding and raster chain method of data compression.	5	2	5	1,5
6. d)	What is the significance of source map?	5	1	5	1,5

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