Printed I	_	t Code:- AMICSE0614				
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	NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA					
	(An Autonomous Institute Affiliated to AKTU, Lucknow)					
	M.Tech (Integrated)					
	SEM: VI - THEORY EXAMINATION- (2023 - 2024)					
	Subject: Web Development usi	_				
	3 Hours	Max. Marks: 100				
	ll Instructions:					
•	rify that you have received the question paper with					
1. This Question paper comprises of three Sections -A, B, & C. It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.						
	mum marks for each question are indicated on rigi	nt -hand side of each question.				
	rate your answers with neat sketches wherever nec					
4. Assume	ne suitable data if necessary.					
5. Prefero	rably, write the answers in sequential order.					
6. No sh	heet should be left blank. Any written mate	rial after a blank sheet will not be				
evaluated	ed/checked.					
	SECTION A	20				
1. Attem	mpt all parts:-					
1-a.	NPM Stands for(CO1)	1				
	(a) Node Project Manager					
	(b) Node Package Manager					
	(c) New Project Manager					
	(d) New Package Manager					
1-b.	Choose the following extension is used to sav	e the Node.js files. (CO1)				
	(a) .js					
	(b) .node					
	(c) .java					
	(d) .txt					
1-c.	Express.js is written in which of the following	language. (CO2)				
	(a) Python					
	(b) Node.js					
	(c) JavaScript					
	(5) 30103311PC					

	(d) C++	
1-d.	In order to use Mongo with Express, we need a client API for node.(CO2)	1
	(a) TRUE	
	(b) FALSE	
	(c) Can be true or false	
	(d) None	
1-e.	Select command to compile a module. (CO3)	1
	(a) tsc-m amd mymodule.ts	
	(b) tscmodule amd mymodule.ts	
	(c) Both a and b	
	(d) None ofthe above	
1-f.	Rest parameter used in a function(CO3)	1
	(a) the type of parameter is not known	
	(b) the function is called recursively	
	(c) the function needs to be executed asynchronously	
	(d) the number of parameters is not known	
1-g.	AngularJs is based on.(CO4)	1
	(a) MVC Architecture	
	(b) MVVM Architectural pattern	
	(c) Decorator pattern	
	(d) Observer Pattern	
1-h.	The controller take the single parameter.(CO4)	1
	(a) \$controller	
	(b) ^scope	
	(c) \$scpoe	
	(d) None of these	
1-i.	Primary unit of data modeling in MongoDb (CO5)	1
	(a) Tables	
	(b) Row	
	(c) Documents	
	(d) None of the above	
1-j.	Categories of NoSQL databases is(CO5)	1
	(a) 1	

	(c) 4	
	(d) 3	
2. Attem	pt all parts:-	
2.a.	Illustrate Graph QL.(CO1)	2
2.b.	Relate the term Express.js Routing.(CO2)	2
2.c.	Define power of types in your words.(CO3)	2
2.d.	Define model view in MVC.(CO4)	2
2.e.	Explain various types of SQL databases.(CO5)	2
	SECTION B	30
3. Answe	er any <u>five</u> of the following:-	
3-a.	List the differences between the global installation of dependencies and local installation of dependencies.(CO1)	6
3-b.	Explain the difference between events and callbacks in Node.js.(CO1)	6
3-c.	Describe Environmental Variable and its types. (CO2)	6
3-d.	Write down the advantages of Express.js.(CO2)	6
3.e.	Explain Decorators in TypeScript.(CO3)	6
3.f.	Explain architectures of angular js with diagram.(CO4)	6
3.g.	Write down the all features sets of mongoDB in details.(CO5)	6
	SECTION C	50
4. Answe	er any <u>one</u> of the following:-	
4-a.	Why is Node.js preferred over other backend technologies like Java and PHP. (CO1)	10
4-b.	Explain the concept of middleware in Node.js.(CO1)	10
5. Answe	er any <u>one</u> of the following:-	
5-a.	Explain REST full API's in detail with suitable diagram.(CO2)	10
5-b.	Mention and describe HTTP Method of Express.(CO2)	10
6. Answe	er any <u>one</u> of the following:-	
6-a.	TypeScript is a free and open-source programming language, justify this statement in your words.(CO3)	10
6-b.	List some features of Typescript and explain each in brief.(CO3)	10
7. Answe	er any one of the following:-	

(b) 2

7-a.	Explain Angular js AJAX . What are two different APIs to handle Ajax requests explain with example.(CO4)	10	
7-b.	Discuss AngularJS Forms & Forms validation with example.(CO4)	10	
8. Answer any <u>one</u> of the following:-			
8-a.	Write steps for MongoDB Environment Setup and how to Install MongoDB on Windows.(CO5)	10	
8-b.	Comparation between a model and a schema in Mongoose.(CO5)	10	

