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TMC-305

(b) Explain the purpose of module.exports. create a module named as "function.js" and access the module in the application "index.js". (CO4)

(c) What is Node.js ? How does it work ? Explain REPL in the context of Node.js. (CO4)

5. (a) What is a content management system used for ? What are the advantages of content management system ? Write down the steps how to create a website using WordPress. (CO5)

(b) What do you mean by web application deployment ? How to deploy a static website using FTP ? (CO5)

(c) What is Elastic beanstalk ? How to deploy serverless applications and deployment using Elastic beanstalk. (CO5)

TMC-305

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Roll No.

TMC-305

**M. C. A. (THIRD SEMESTER)
END SEMESTER
EXAMINATION, Dec, 2022
FULL SACK WEB DEVELOPMENT**

Time :Three Hours

Maximum Marks : 100

Note : (i) All questions are compulsory.

(ii). Answer any *two* sub-questions among (a), (b) and (c) in each main question.

(iii) Total marks in each main question are **twenty**.

(iv) Each sub-question carries 10 marks.

1. (a) What are the new features of HTML 5 ? Explain the new form controls in Web Form 2.0 with proper example. (CO1)
- (b) What is geolocation in HTML5 ? How does HTML5 geolocation work ? Explain with the help of code snippet. (CO1)

P. T. O.

(2)

TMC-305

- (c) What is the use of web storage in HTML5 ? Differentiate between web storage and cookies. Write a program to create local storage. (CO1)
2. (a) What is bootstrap grid system. How many classes are present in bootstrap grid system explain with suitable example. (CO2)
- (b) Explain the CSS positioning properties in detail. Create a web page which contains four <div> elements and implement all CSS positioning properties to properly position these elements and create layers of elements from one to four where the z-index can vary accordingly. (CO2)
- (c) What is animation in CSS. Write a program to binds the "sample" animation to the <div> element. The animation will last for 4 seconds, and it will gradually change the background-color of the <div> element from "red to green" and "green to yellow", and it retain the style values from

(3)

TMC-305

- the last keyframe when the animation ends. (CO2)
3. (a) What is the use of regular expressions in JavaScript ? Validate a student registration form using regular expression, where : (CO3)
- (i) User Name contains name with 'GEHU' as a pattern
- (ii) Password should be alphanumeric
- (iii) Phone number
- (b) What are the directives in AngularJs ? Explain the MVC architecture of AngularJs in detail. Write a program to show two-way data binding using AngularJS directives. (CO3)
- (c) What is XML ? Explain how to write an XML document ? Explain the XML grammar in detail. (CO3)
4. (a) What do you mean by NPM in node.js ? write a program to create, insert and update a database using MongoDB. (CO4)

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