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**UNIVERSITYY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_\_

**End Semester Examination – Nov/Dec - 2016**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **10IT203 / 12IT225** | **Duration :** | **3 hrs** |
| **Sub. Name :** | **Essentials of Information Technology** | **Max. Marks :** | **100** |

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| **Q. No.** | **Questions** | | | **Course outcome** | **Mark** |
| **PART-A(10X1=10 MARKS)** | | | | | |
| 1. | Name the special purpose register that contains the address of the next instruction to be executed. | | | CO2 | (1) |
| 2. | \_\_\_\_\_\_\_\_\_\_\_\_\_ is a system software that converts programs written in one language to programs in another language. | | | CO2 | (1) |
| 3. | Define an algorithm. | | | CO3 | (1) |
| 4. | Give two examples of functional requirements. | | | CO1 | (1) |
| 5. | A \_\_\_\_\_\_\_\_\_\_\_ is a set of one or more attributes that can uniquely identify a row in a given table. | | | CO2 | (1) |
| 6. | Define Entity. | | | CO2 | (1) |
| 7. | What is meant by multiple inheritance? | | | CO3 | (1) |
| 8. | Define abstract class. | | | CO3 | (1) |
| 9. | Name the different types of network topologies. | | | CO2 | (1) |
| 10. | Define URL. | | | CO2 | (1) |
| **PART B(5 X 3= 15 MARKS)** | | | | | |
| 11. | Briefly explain direct and indirect addressing modes. | | | CO2 | (3) |
| 12. | Write briefly the importance of a code / document review? | | | CO1 | (3) |
| 13. | Give short notes on the properties of a transaction. | | | CO2 | (3) |
| 14. | State the differences between procedural and object oriented programming. | | | CO2 | (3) |
| 15. | Write short notes on HTML(Hyper Text Markup Language). | | | CO2 | (3) |
| **PART C(5 X 15= 75 MARKS)** | | | | | |
| 16. | Analyze the execution of the instruction ADD R1, R2 with the help of a neat instruction diagram. | | | CO2 | (15) |
| (OR) | | | | | |
| 17. | With neat diagram, explain the different phases of a compiler. | | | CO1 | (15) |
| 18. | a. | Write a simple C program to find whether a given number is prime or not. | | CO2 | (5) |
| b. | Explain in detail the elements of user interface design. | | CO1 | (10) |
| (OR) | | | | | |
| 19. | Compare and contrast the three different software development models: Waterfall model, Spiral model and Prototype model. | | | CO1 | (15) |
| 20. | Explain in detail about the transaction log. | | | CO2 | (15) |
| (OR) | | | | | |
| 21. | A Table Customer\_Details is given with the following specifications **Column Name** **Data Type and Width** **Constraint**  Cust\_Id Number(6) Not Null  Cust\_Last\_Name Varchar2(25) Not Null  Cust\_Mid\_Name Varchar2(25)  Cust\_First\_Name Varchar2(25)  Acc\_No Number(10) Primary Key  Acc\_Type Varchar2(10) Not Null  Bank\_branch Varchar2(25) Not Null  Cust\_Email Varchar2(30)  Write the following Queries.  a) Create a view with the following columns : Cust\_Id, Cust\_Last\_Name, Acc\_No, Cust\_Email  b) Add a new column Contact\_No to the Customer\_Details table.  c) Retrieve all the customer last names without duplicates along with their email id.  d) Update the email id of customer whose cust\_id is 104.  e) Drop the table. | | | CO2 | (15) |
| 22. | Write in detail the best practices followed in the object oriented design phase to make the design more robust and flexible. | | | CO3 | (15) |
| (OR) | | | | | |
| 23. | With a neat UML class diagram, explain the hospital management system with the following classes: Patient, person, hospital, department, staff, doctor. | | CO3 | | (15) |
| 24. | With neat diagram, describe the working of web browser and web server and the communication between them. | | CO2 | | (15) |
| (OR) | | | | | |
| 25. | Describe the layers of the OSI model with a neat diagram. | | CO2 | | (15) |

ALL THE BEST