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



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

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

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

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|  |  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **14CS2025** |  | **Duration :** | **3hrs** |
| **Sub. Name:** | **IT INFRASTRUCTURE AND MANAGEMENT** |  | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| Q. No | Sub Div | Questions | Course  Outcome | Marks |
| 1. | a. | Karunya University wants to set up a cloud environment in the Technology Centre and also University wants privacy and control of computing environment. Which cloud deployment model will suit for this need? Justify. | CO-1 | 10 |
| b. | Can you provide 100% availability of the IT system? If no substantiate your answers. | CO-2 | 10 |
| 2. | a. | Categorize the scenarios of the attack in the IT system with necessary diagram and suitable examples | CO-3 | 10 |
| b. | How do you improve the performance of the IT system? Explain with an example. | CO-3 | 10 |
| 3. | a. | Karunya University has signed MoU with IBM and IBM is in need of setting up a data center for its business operations at Karunya University. As an IT architect, you are assigned the task to ensure the environment to be conducive for the data center to be setup. Write the parameters which you will consider for justifying your decision | CO-2 | 10 |
|  | b. | Draw the layout of the Datacenter and explain the purpose of each block. | CO-4 | 10 |
| 4. | a. | Explain in brief about.  i.x86 processor  ii.AMD and other clone processors  iii.64 bit processor  iv.Itanium  v.Midrange processor  vi.SPARC  vii.RISC  viii.Alpha | CO-4 | 10 |
|  | b. | Give an overview ofthe internal and external interface | CO-4 | 10 |
| 5. | a. | High network availability is mandatory as downtime in the service cannot be tolerated by the customer. How can it be achieved? How do you measure the network performance? | CO-3 | 10 |
|  | b. | Explain the IP version 4. Premier Express Cargo company is granted the site address 201.70.1.0 and Premier Express Cargo Company needs four subnets. Design the subnets. | CO-4 | 10 |
| 6. | a. | Discuss in detail about Data deduplication. | CO-4 | 8 |
|  | b. | Summarize the unique characteristic RAID levels and explain the pros and cons of the different RAID levels. | CO-4 | 12 |
| 7. | a. | Explain the advantage and disadvantage of using virtualization. | CO-4 | 8 |
|  | b. | How do you enhance the availability of an virtual machines?Explain with an proper example. | CO-3 | 12 |
| 8. | a. | Illustrate the use of failover clustering. How it contributes to the availability of the operating system. | CO-4 | 10 |
|  | b. | How do you protect the operating system? Explain with an example. | CO-3 | 10 |
|  | | **Compulsory:** |  |  |
| 9. | a. | Compare the advantage of using VDI and thin clients instead of using traditional desktop environments. | CO-4 | 12 |
|  | b. | Discuss the different types of printers. | CO-4 | 8 |

ALL THE BEST