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| **University of Kerala** | | |
| Discipline: COMPUTER SCIENCE |  | Time: 2 Hours (120 Mins.) |
| Course Code: UK1DSCCSC104 |  | Total Marks: 56 |
| Course Title: INFORMATICS |  |  |
| Type of Course: DSC |  |  |
| Semester: 1 |  |  |
| Academic Level: 100-199 |  |  |
| Total Credit: 4, Theory: 4 Credit, Practical: 0 Credit |  |  |

Part A. 6 Marks. Time: 5 Minutes

Objective Type. 1 Mark Each. Answer All Questions

(Cognitive Level: Remember/Understand)

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| **Qn.**  **No.** | **Question** | **Cognitive**  **Level** | **Course**  **Outcome (CO)** |
| 1. | What is the base of hexadecimal number system? | Remember | CO1 |
| 2. | Define the term ‘search engine’. | Remember | CO2 |
| 3. | List any two components of Geoinformatics. | Remember | CO3 |
| 4. | Name a website creation tool used in digital marketing. | Remember | CO4 |
| 5. | What is the use of podcast? | Understand | CO2 |
| 6. | Expand BCD. | Remember | CO1 |

Part B. 10 Marks. Time: 20 Minutes

Two-Three sentences. 2 Marks Each. Answer All Questions

(Cognitive Level: Remember/Understand)

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| **Qn.**  **No.** | **Question** | **Cognitive**  **Level** | **Course**  **Outcome (CO)** |
| 7. | Differentiate between ASCII and EBCDIC. | Understand | CO1 |
| 8. | What do you mean by Digital Divide? | Understand | CO2 |
| 9. | Discuss any two applications of Geoinformatics. | Remember | CO3 |
| 10. | Identify the role of an image generator in website creation. | Understand | CO4 |
| 11. | Compare 3G and 4G Mobile Systems. | Understand | CO1 |

Part C. 16 Marks. Time: 35 Minutes

Short Answer. 4 Marks Each. Answer all 4 questions, choosing among options within each question.

(Cognitive Level: Remember/Understand/Apply)

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| Qn.  No. | Question | Cognitive  Level | Course  Outcome (CO) |
| 12. | (a) Compare the functions of a router and switch in network design.  Or  (b) Discuss about RGB and CMYK color formats. | Understand | CO1 |
| 13. | (a) Explain the various Academic Search Techniques.  Or  (b) Discuss the structure of an e-mail system. | Remember | CO2 |
| 14. | (a) Define Geoinformatics and explain its key components.  Or  (b) Describe about the history of Bioinformatics. | Remember | CO3 |
| 15. | (a) Identify the benefits and limitations of using AI-generated audio and video content for digital marketing campaigns.  Or  (b) Discuss the potential benefits and challenges of generative AI in advertising industries. | Apply | CO4 |

Part D. 24 Marks. Time: 60 Minutes

Long Answer. 6 Marks Each. Answer all 4 questions, choosing among options within each question. (Cognitive Level: Understand/ Apply)

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| **Qn.**  **No.** | **Question** | **Cognitive**  **Level** | **Course**  **Outcome (CO)** |
| 16. | (a) Convert (345)10 to its equivalent Binary, Octal and Hexadecimal Number.  OR  (b) Convert (1011011)2 to its equivalent Decimal, Octal and Hexadecimal Number. | Apply | CO1 |
| 17. | (a) Discuss the importance of podcasts, weblogs, and videologs in creating a personal cyber presence with example.  OR  (b) What is the need for cyber security and how do we ensure it? | Understand | CO2 |
| 18. | (a) Define Bioinformatics. Identify the importance of bioinformatics in biological research.  OR  (b) Discuss the evolution of Geoinformatics as a multidisciplinary Discipline. | Understand | CO3 |
| 19. | (a) What are the key steps involved in website creation? Describe the AI tools used in the process.  OR  (b) Discuss the basic structure and components of AI prompt Generator. | Understand | CO4 |

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| **Cognitive Level** | **Marks** | **Percentage** |  | **Course Outcomes** | **Marks** | **Percentage** |
| Remember | 15 | 26.7 |  | CO1, 2, 3,4 | 15 | 26.7 |
| Understand | 31 | 55.35 |  | CO1,2,3,4 | 31 | 55.35 |
| Apply | 10 | 17.86 |  | CO1, 4 | 10 | 17.86 |
| **TOTAL** | **56** | **100** |  | **TOTAL** | **56** | **100** |