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| <b>Name:</b>         |  |
| <b>Enrolment No:</b> |   |

**UPES**  
**End Semester Examination, December 2023**

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| <b>Course: Ethics in Clinical Research</b> | <b>Semester: III</b>     |
| <b>Program: B.Sc. Clinical Research</b>    | <b>Duration: 3 Hours</b> |
| <b>Course Code: HSCR2006</b>               | <b>Max. Marks: 100</b>   |

**Instructions:**

1. This question paper consists of four sections.
2. All sections are compulsory.
3. Attempt all questions.

| S. No. | Section A<br>Short answer questions/ MCQ/T&F<br>(20Qx1.5M= 30 Marks)   | Marks      | COs        |
|--------|--|------------|------------|
| Q1     | State any <b>THREE</b> ethical responsibilities of clinical researchers.   | <b>1.5</b> | <b>CO1</b> |
| Q2     | List any <b>THREE</b> international codes/guidelines for ethical conduct of research.  | <b>1.5</b> | <b>CO2</b> |
| Q3     | Discuss any <b>TWO</b> important principles of ethical framework for research on human subjects.                                   | <b>1.5</b> | <b>CO1</b> |
| Q4     | Discuss “social value” in context of ethics of research.   | <b>1.5</b> | <b>CO3</b> |
| Q5     | Explain the meaning of “fair subject selection” as per the principles of ethical framework.  | <b>1.5</b> | <b>CO3</b> |
| Q6     | State the objectives of International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (ICH). | <b>1.5</b> | <b>CO4</b> |
| Q7     | List any <b>THREE</b> topics of guidelines produced by ICH.  | <b>1.5</b> | <b>CO4</b> |
| Q8     | State any <b>THREE</b> sections included in ICH GCP.   | <b>1.5</b> | <b>CO4</b> |
| Q9     | State the purpose of 505(b) (1) pathway of the US FD&C act.  | <b>1.5</b> | <b>CO2</b> |
| Q10    | List any <b>THREE</b> clinical trial guidelines applicable in India.   | <b>1.5</b> | <b>CO2</b> |
| Q11    | State any <b>THREE</b> responsibilities of Drugs Controller General of India (DCGI).   | <b>1.5</b> | <b>CO3</b> |
| Q12    | Define category A clinical trials as per the categorisation of clinical trials by DCGI.  | <b>1.5</b> | <b>CO3</b> |

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| <b>Q13</b>                                   | List any <b>THREE</b> objectives of GHTF.   | <b>1.5</b> | <b>CO5</b> |
| <b>Q14</b>                                   | Define analytical performance of an in vitro diagnostic (IVD) medical device.   | <b>1.5</b> | <b>CO5</b> |
| <b>Q15</b>                                   | Explain the objectives of Drugs and Cosmetics Act 1940.   | <b>1.5</b> | <b>CO3</b> |
| <b>Q16</b>                                   | List any <b>THREE</b> sets of data to be submitted with form 44 of schedule Y of Drugs and Cosmetics Act 1940 for permission to import and/ or manufacture of new drugs for sale or to undertake clinical trials. | <b>1.5</b> | <b>CO3</b> |
| <b>Q17</b>                                   | Define Clinical performance of an IVD medical device.   | <b>1.5</b> | <b>CO5</b> |
| <b>Q18</b>                                   | List any <b>THREE</b> categories of products covered under FDA MedWatch program.  | <b>1.5</b> | <b>CO4</b> |
| <b>Q19</b>                                   | Define EudraLex.  | <b>1.5</b> | <b>CO4</b> |
| <b>Q20</b>                                   | Define clinical research organisation (CRO) as specified in ICH GCP.  | <b>1.5</b> | <b>CO4</b> |
| <b>Section B</b><br><b>(4Qx5M=20 Marks)</b>  |   |            |            |
| <b>Q1</b>                                    | Discuss “Tuskegee Syphilis Study” as an example of unethical research.  | <b>5</b>   | <b>CO1</b> |
| <b>Q2</b>                                    | Discuss any <b>FIVE</b> guidelines covered by Nuremberg Code of ethics 1949.  | <b>5</b>   | <b>CO1</b> |
| <b>Q3</b>                                    | Summarise the history of evolution of ICH.  | <b>5</b>   | <b>CO4</b> |
| <b>Q4</b>                                    | Describe the objectives of ICMR National Ethical Guidelines for Biomedical and Health Research Involving Human Participants.  | <b>5</b>   | <b>CO2</b> |
| <b>Section C</b><br><b>(2Qx15M=30 Marks)</b> |   |            |            |
| <b>Q1</b>                                    | Discuss any <b>TEN</b> principles stated in ICH GCP guidelines.   | <b>15</b>  | <b>CO4</b> |
| <b>Q2</b>                                    | Illustrate the decision-tree/flowchart for clinical performance study design as per GHTF study group 5 guidance documents.  | <b>15</b>  | <b>CO5</b> |
| <b>Section D</b><br><b>(2Qx10M=20 Marks)</b> |   |            |            |
| <b>Q 1</b>                                   | Discuss in detail the content of investigators brochure as per ICH GCP guidelines.  | <b>10</b>  | <b>CO3</b> |
| <b>Q2</b>                                    | Differentiate EU-CTD and EU-CTR pathways for carrying out clinical trials in member states of the European Union.   | <b>10</b>  | <b>CO2</b> |