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| **Examination question paper:** | **May 2024** |

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| **Module code:**  **Component number:** | **BM7047 RESIT**  **002** |
| **Module title:** | **Molecular Oncology** |
| **Module leader:** | **Prof Chris Palmer** |

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| **Date:** | **May 2024** |
| **Duration:** | **1 Hour 30 Minutes** |

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| **Exam type:** | **Seen, Closed** |
| **Materials supplied:** | **None** |
| **Materials permitted:** | **None** |
| **Warning:** | **Candidates are warned that possession of unauthorised materials in an examination is a serious assessment offence.** |

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| **Instructions to candidates:** | **This paper consists of ONE section.** |
|  | **Candidates will be required to answer TWO out of a possible FIVE questions from the paper.**  **Write each answer in a separate answer booklet.** |
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|  | **Do not turn page over until instructed** |

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**BM7047: Molecular Oncology**

**Seen exam**

Maximum marks possible: 200

Answer **two** questions out of the five questions in this paper.

1. Evaluate how the ErbB receptor family can contribute to oncogenic signalling. Include a description of the key intracellular signalling proteins that couple with ErbB receptors to induce pro-oncogenic processes.
   * + 1. **marks**
2. Discuss the molecular signalling processes associated with apoptosis and discuss how mutations in proteins involved in maintaining these processes can lead to oncogenesis.
3. **marks**
4. Discuss how aberrant signalling of vascular endothelial growth factor (VEGF) receptor signalling can contribute to the process of tumour progression.

**100 marks**

1. Evaluate the molecular mechanisms by which tumour cells can acquire an invasive phenotype and discuss the relevance of the acquisition of this phenotype in relation to metastasis.

**100 marks**

1. Discuss the details of wnt signalling and its importance in colon cancer

**100 marks**

**END OF PAPER**