

NST2BBS

Natural Sciences Tripos Part II: Biological and Biomedical Sciences (2024)

**Paper 65 and 13\_1: Early Medicine**

You should answer three questions. All questions carry equal weighting. You must not reuse portions of text from one answer in another answer.

You should spend no more than three hours on answering all the questions, and a word limit is set of no more than 1,500 words per answer, so no more than 4,500 words for the whole paper.

All your answers for this paper should be submitted in one DOC, DOCX or PDF document. Each answer should be clearly headed with the question number and the question.

Put your Blind Grading Number (BGN) at the start of the document. Do not put your name anywhere in the document.

1. How important was Galen for European understandings of the world after Columbus?
2. How did early modern Europeans account for the outbreak of “new” diseases?
3. How did medical knowledge and healing practices move across Eurasia in the early modern period?
4. How important was anatomy for the development of European traditions of healing?
5. What impact did the transatlantic slave trade have on early modern medical exchanges?
6. Explain the success of “man-midwives” in seventeenth-century Europe.
7. Whom would early modern noblemen consult if they had a pain in the side?
8. What did early modern European *cordons sanitaires* prevent?
9. When and how did medicine become a “respectable” career in early modern China?

10. What was the role of prayer and religious contemplation in early modern medical practice?
11. How would an apothecary decide what drugs to prescribe in around 1700?
12. What do legal documents add to the history of early medicine?

**END OF PAPER**

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**Paper 66 and 13\_2: Modern Medicine and Biomedical Sciences**

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1. Why and how did hospitals become “temples of modern medicine”?
2. Assess the roles of pathological anatomy and experimental physiology in the making of modern medicine.
3. To what extent had bacteriological knowledge shaped surgery **AND/OR** public health by around 1900?
4. How, and to what extent, had “medicine been reinvented as a profession suitable for respectable women” by World War One?
5. “The early history of X-rays demonstrates that to understand the medical use of a machine, even one that from today’s perspective seems to have such obvious utility, one must study more than simply the medical applications of the device” (Joel D. Howell). Discuss.
6. Why did so many physicians in the early twentieth century insist that medicine was an art, and not a science?
7. In what ways did links between medicine, business and industry change the treatment of disease between 1900 and 1950?

8. To what extent was post World War Two biomedical science a “War on Disease”?
9. “We will no longer tolerate intimidation by white-coated gods, antiseptically directing our lives” (Washington Women’s Liberation, 1970). What difference did social movements make to medicine between the 1960s and 1980s?
10. Discuss the historical connections between medicine and colonialism.
11. What was social medicine, and how did it influence the history of international health?
12. Does the concept of “race” play the same role in contemporary genomic medicine as it did in eighteenth-century medicine?

**END OF PAPER**

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### **Paper 13\_3: Philosophy of Science and Medicine**

You should answer three questions. All questions carry equal weighting. You must not reuse portions of text from one answer in another answer.

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All your answers for this paper should be submitted in one DOC, DOCX or PDF document. Each answer should be clearly headed with the question number and the question.

Put your Blind Grading Number (BGN) at the start of the document. Do not put your name anywhere in the document.

1. What is the best definition of death?
2. Can we learn anything from observational studies?
3. Are there such things as diseases and does it matter?
4. What are the limits to extrapolating from clinical trials? Can they be overcome?
5. Critically assess Bradford-Hill's criteria for evidence of causation.
6. How could we improve the organisation of biomedical research?
7. Is the "Extreme Male Brain" theory of autism tenable?
8. Is there any hope of solving the hard problem of consciousness?
9. Must mental disorders be "globalizable"?
10. Do laws of nature as discovered by science govern all phenomena?
11. Do selves exist?

12. Is biomedicine able to discover laws?

**END OF PAPER**

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### **Paper 13\_4: Ethics of Medicine**

You should answer three questions. All questions carry equal weighting. You must not reuse portions of text from one answer in another answer.

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All your answers for this paper should be submitted in one DOC, DOCX or PDF document. Each answer should be clearly headed with the question number and the question.

Put your Blind Grading Number (BGN) at the start of the document. Do not put your name anywhere in the document.

1. How useful is the concept of the “Iron Curtain” for understanding the history of science and technology in the Cold War?
2. What, if anything, went wrong in the Lysenko affair?
3. Is it unfair to deny cancer screening to high-risk groups for the sake of population health?
4. “We can’t avoid influencing people’s health-related decisions; therefore, we ought to nudge them into making healthy decisions.” Is this a good argument?
5. When, if ever, should we use the concept of “race” in biomedical research?
6. Does the problem of inductive risk show that science cannot be objective?
7. What is the best argument for diversifying the scientific research community?
8. Should we be essentialists or contextualists about sex categories?
9. Does it make sense to ethically evaluate technology?

10. "Since we cannot know whether AI is conscious, we ought to act on the assumption it is." Discuss.
11. Compare and contrast issues in gaining informed consent to screening and gaining informed consent to psychiatric interventions. Are there any fundamental differences?
12. Can we ever justify compulsory treatment for psychiatric disorders?

**END OF PAPER**



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### **Paper 45: Philosophy and Ethics of Medicine**

You should answer four questions in total; at least one from Section A and at least one from Section B. All questions carry equal weighting. You must not reuse portions of text from one answer in another answer.

You should spend no more than three hours on answering all the questions, and a word limit is set of no more than 1,000 words per answer.

All your answers for this paper should be submitted in one DOC, DOCX or PDF document.

Each answer should be clearly headed with the question number and the question.

Put your Blind Grading Number (BGN) at the start of the document. Do not put your name anywhere in the document.

#### **SECTION A: Ethics of Medicine**

1. Is it unfair to deny cancer screening to high-risk groups for the sake of population health?
2. “We can’t avoid influencing people’s health-related decisions; therefore, we ought to nudge them into making healthy decisions”. Is this a good argument?
3. When, if ever, should we use the concept of “race” in biomedical research?
4. Does the problem of inductive risk show that science cannot be objective?
5. What is the best argument for diversifying the scientific research community?
6. Should we be essentialists or contextualists about sex categories?

#### **SECTION B: Philosophy of Medicine**

7. How, if at all, should neuroscience change our practices of ascribing responsibility?

8. Are psychiatric disorders always culturally relative?
9. Is dying always bad for you?
10. What is the best argument for Boorse's account of disease?
11. Who should decide, and how should they decide, which outcomes to measure in biomedical research?
12. What is the best argument against relying on observational studies?

**END OF PAPER**