Australian Institute of
Medical and Clinical Scientists (AIMS)

FELLOWSHIP EXAMINATION EXAMPLE

Name:
Candidate No:

# Immunology

## Compulsory Module II

## (Immunodeficiency and Neoplasias of the Lymphoid System)

## SAMPLE EXAM

**INSTRUCTIONS TO CANDIDATE**

**Time allowed is three (3) hours**

Answers should be written in the answer book provided, writing on the right-hand page only leaving the margin blank. The facing page may be used for rough work if desired

The examination consists of:

- 2 essay style questions; each question is worth 35 marks.
  (Allow approximately 30 mins each)
- 20 short answer questions; each question is worth 5 marks.

Time allowed for writing is three (3) hours. There is an additional initial reading time of 15 minutes during which notes only may be written on the examination paper but no writing in the examination answer books is permitted at this time.
Candidates may attempt either the essay questions or the short answer questions first.

No papers or books of any kind may be taken into the examination room. No electronic devices of any type* are to be taken in to or accessed in the examination room. A non-programmable calculator only is permitted.

*This includes, but is not restricted to: phones, iPads, iPods, eBook readers, MP3 players, memory sticks (flash drives) and WiFi enabled devices of all types.

**THE EXAMINATION PAPER MAY NOT BE REMOVED FROM THE EXAMINATION ROOM**

## ESSAY ANSWER QUESTIONS

**2 Questions - each question is worth 35 marks. Time allocated to each question should not exceed 35 minutes. All questions should be attempted**

**Q1.** Outline the biologic mechanisms underpinning lymphoid Neoplasias, giving specific examples. Discuss the laboratory diagnosis and monitoring of lymphoid neoplasms and detail the role of different methodologies. Include examples of specific findings for various disease.

**Q2.** For the each of the following Immunodeficiency diseases:

a) DiGeorge syndrome
b) Common Variable immunodeficiency
c) Chronic granulomatous disease

Describe the biological mechanisms underpinning the disease, the clinical presentation, the laboratory diagnosis, and treatment.

## SHORT ANSWER QUESTIONS

**20 Questions - each question is worth 5 marks. Time allocated to each question should not exceed 5 minutes. All questions should be attempted. (Note only 10 Short answer questions in this sample paper the actual paper will have 20 Questions)**

**Q1**. How is flow cytometry a useful diagnostic tool for the clinical management of cellular immune deficiencies?

**Q2**. List the key clinical characteristics of *selective IgA deficiency*.

**Q3**. In a patient in *chronic "latent" phase* of *HIV infection* what phenotypic T cell profile would you expect to see?

**Q4**. What diagnostic tools are useful in the monitoring of *immunoglobulin replacement therapies*?

**Q5**. What is the laboratory diagnostic differential between *acute and chronic leukaemia*?

**Q6**. What is the value of serum protein electrophoresis in screening for monoclonal proteins?

**Q7**. List the tests used for a diagnostic workup of a patient with a suspected *plasma cell neoplasm*.

**Q8**. What are the diagnostic criteria for *multiple myeloma*?

**Q9**. What is MRD? What methods are used to detect MRD? List three lymphoid neoplasms for which MRD tests may be used.

**Q10**. Outline the quality control processes for flow cytometry in the diagnostic laboratory.

## END OF EXAMINATION