

Term 3 Physics Common Test Guidelines for Preparation

Jun 2003

Name : _____

Registration Number : 03S_____

Date : 3rd July 2003 (Thursday)

Time : 0815 to about 1110 h

CTs	Venues
03S01 to 03S09	LT 1
03S10 to 03S12	LT 2
03S13 to 03S27	LT 5

Plan your schedule of revision using this table!

	Lecture Topics	Tutorials																	
1	Physical Quantities and Units	<ul style="list-style-type: none"> Physical Quantities and Units Scalars and Vectors 																	
2	Errors and Uncertainties	<ul style="list-style-type: none"> Errors and Uncertainties 																	
3	Temperature	<ul style="list-style-type: none"> Temperature 																	
4	Kinematics	<ul style="list-style-type: none"> Linear Kinematics Non-linear Kinematics 																	
5	Dynamics	<ul style="list-style-type: none"> Newton's laws of motion Linear Momentum 																	
6	Forces	<ul style="list-style-type: none"> Forces 																	
7	Work, Energy, Power	<ul style="list-style-type: none"> Work, Energy, Power 																	
8	Motion in a Circle	<ul style="list-style-type: none"> Motion in a Circle 																	
9	Gravitational Field	<ul style="list-style-type: none"> <i>based on lecture notes only</i> 																	

Format:

Section	Questions	Marks	Time allocated
A#	20 mcq (shade on optical answer sheet OAS - note your registration number)	40	#40 min
B	6 short-structured (write on question paper)	60	About 70 min
C	1 long-structured (writing paper provided)	20	About 30 min
		120	2 h 20 min

#There is a short interval after Section A to collect the OAS and question papers and distribute Sections B and C.

GENERAL ADVICE

- **The day before**

- Get ready your **calculator** (in good working order), **stationery** and a watch.
- Have sufficient sleep/rest the day before the paper.
- **Know the venue for your class!**

- **Actual day**

- Have a light breakfast.
- **Bring along your thermometer for temperature taking!**
- **Do not bring any valuable and electronic communication device to the venue!**
- Bring a sweater/wind-breaker (if necessary)
- Raise your hand immediately if you have any problem/request.

Hints for Solving Physics Problems

1. Try to understand the physics of the problem before launching into a mathematical analysis
 - identify given and required variables
 - recall related physical laws, formulae and equations
 - recall similar systems
2. Show your working neatly and clearly on the page, and explain what you are doing and why you are doing it.
3. Draw a clearly-labelled diagram if it helps (it nearly always does).
4. Try to keep expressions algebraic (using suitable symbols) rather than numerical.
Advantages:
 - units of your answer can be checked easily at the end of your calculation.
 - less likely to make mistakes if you are manipulating a few symbols rather than actual numbers.
 - expressing your answer algebraically first allows easier checking later.
5. Check the units of your answer.
6. Check the magnitude of your answer against common sense or other knowledge.
7. Generally, **intermediate** results should be calculated to 4 or more significant figures. However, **do not** use more than 3 significant figures in your **final** answer (unless the given data has more than 3 significant figures).