Board of Studies – PG Physics – meeting

25.2.2015

Agenda:

To discuss the syllabus of M.Sc Physics to be followed from the academic year 2015-2016 Onwards.

Members present

1. Prof. K. Rabi Ahamed –
2. Dr. S.H. Mohamed Ameen –
3. Prof. S.M. Abdul Kader –
4. A. Zeenath Bazeera – A. Zeenath
5. A. Ferin Fathima – ferin fathima. A
6. M. Sharmila – M Sharmila
7. A. Ponchitra – A Ponchitra
8. Prof. D.S. Subramanian – S. Subramanian
9. Prof. P. Elizabeth Jeya Rani – P Elizabeth Jeyarani
10. S.P. Sheik Abdul kader – S.P. Sheik

Resolutions passed :- It is resolved to introduce the new Courses and revise the syllabus as mentioned in the Annexure.

1. In Core paper 1 (C1) – classical Mechanics and
   * Relativity – Bertrand's Theorem is deleted in Unit II.

2. Sub headings of the Units should be specified.

3. In Core paper 3 (C3) – Electronic Devices –
   * Fabrication of MESFET is added in Unit I.
   * Heading of Unit iv is modified as Advanced Electronic Devices.

4. In Core pape 4 (C4) – Material Science –
   * Title of Unit iv may be changed as Nano materials instead of optical and Nano materials.
   * CNT, Quantum wire, Quantum well, Quantum dot,

Quantum Confinement, Synthesis of Nano materials by physical and chemical methods are included in Unit IV.

* Nano Essentials – Pradeep may be included as a text book.

⑤ In CP1, Practical I

① Spectrophotometer – absorption spectrum studies / Verification of Beer Lambert's Law

② Particle size determination using He-Ne Laser are included.

⑥ Core paper 5, (C5) – Mathematical Physics II – Application of Tensor – Hooke's Law is included in Unit IV.

⑦ Core pape 6 (C6) – Quantum mechanics I –

* Hydrogen atom may be included in Unit II

* clebsch – Gordan coefficients $j_1 = 1/2$, $j_2 = 1/2$ and $j_1 = 1$, $j_2 = 1/2$ are added in unit IV.

* In unit V Spin angular momentum – 1 $e^{\ominus}$ System – 2 $e^{\ominus}$ system may be included.

⑧ Core paper 8 (C8) – Microprocessor and Microcontroller.

* The heading of unit II is modified as Instruction set and Assembly Language programming.

* In unit IV – Intel 8212 Generation of I/O ports is to be specified.

* Microprocessor — B. Ram must be included as a text book.

(9) CP2 — Practical II.

* In Experiment No. 10 — Counters 2 to 10 — mod 2, mod 3, mod 4 .... mod 10 are to be specified.

(10) Core Paper 10, (C10) — Quantum Mechanics II
* Adiabatic and Sudden approximation are included in Unit II.

(11) Core Paper 11, (C11) — Spectroscopy

* In unit V, Experimental techniques in mossbauer spectroscopy and its application may be included.

(12) Core paper 12, (C12) - Solid State Physics
* Title of Unit II is modified as Crystal Vibrations

(13) Core paper 13, (C13) — Nuclear and Particle ~~Sig~~ Physics.
* In Unit IV, Thermal and Power reactors are to be deleted.

(14) C(14) — Project
* Each project group may have a maximum of 2 students.
* minimum number of pages should be 50

(15) E(M) - 1 — Opto Electronics and Lasers.
* Sub headings may be included in Unit I

5. Practical I — NIL

In CP4 – Practical 4 – Programming

* Either Microprocessor or Computer Programming may be asked in practical Examination.

CHAIRMAN / CHAIRPERSON | DEAN OF SCIENCE | PRINCIPAL

Sadakathullah Appa College

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Annexure - I

Department of Physics (PG)

The Board of Studies of Department of Physics (PG) was held on 25.2.2015 for the approval of 2015-2018 syllabus. The number of new courses, courses focussing on Skill Development / Employability / Entrepreneurship, the percentage of revision are mentioned below.

New Courses introduced - NIL

Courses focused on Skill Development /Employability / Entrepreneurship

S.No.	Title of the Course	Course Code	Category
1.	Practical – I	15PPHC2P1	Skill Development
2.	Practical – II	15PPHC2P2	Skill Development
3.	Practical – III	15PPHC4P1	Skill Development
4.	Project	15PPHP41	Skill Development
5.	Practical – IV	15PPHC4P2	Skill Development
6.	Electronic Devices	15PPHC13	Employability
7.	Microprocessor and Microcontrollers	15PPHC24	Employability
8.	Communication Electronics	15PPHE1B	Employability
9.	Renewable Energy Sources	15PPHN31	Entrepreneurship

Percentage of Revision

S.No.	Courses	Course Code	Percentage %
1.	Mathematical Physics - I	15PPHC12	1.5%
2.	Electronic Devices	15PPHC13	4%
3.	Mathematical Physics - II	15PPHC21	7%
4	Quantum mechanics - I	15PPHC22	40%
5.	Statistical Mechanics	15PPHC23	12%
6	Quantum Mechanics – II	15PPHC32	60%
7	Spectroscopy	15PPHC33	5%

Total Percentage of Revision: 6.16%

Total number of Courses: 21

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