Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal
Program Name: Three Year Diploma in Cement Technology [C01]
(VI Semester)

Name of Scheme: Jul.08 Exam Code: * Implemented From: 2008-09

Sub Code	Paper Code	Name of Subject	SCHEME OF STUDIES			SCHEME OF EXAMINATION												
			Hours per Week			Sess. Marks		Prog. Assm		Sess + Prog	UNIV. EXAMINATION						TH+PR.	
			TH.	PR.	TOTAL	Term Work	Lab work	I	II	Total Internal Assessment	Th. Paper	Duration	Marks	PR	Duration in Hrs	Mks.	Total External assessment	Total Marks
601	6312	Building Material and Quality control	06	02	08	15	15	10	10	50	01	3 Hrs	100	01	03	50	150	200
602		Industrial Management in Cement Technology	06	-	06	30	-	10	10	50	01	3 Hrs	100	-	-	-	100	150
603	6313	Plant Maintenance and Safety	06	02	08	15	15	10	10	50	01	3 Hrs	100	01	03	50	150	200
604	*	Project	-	12	12	-	100	-	-	100	-	-	-	01	03	200	200	300
605		Professional Activities	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
			18	18	36	60	130	30	30	250	03	-	300	03	-	300	600	850

* Project marks (200) consists of 100 marks for Thesis and Project Evaluation, and 100 marks for Presentation and Viva-voce

1. Number of Theory Papers : 03
2. Total theory Marks : 300
3. Number of Practicals : 03
4. Total Practical Marks : 300
5. Total marks of Sessional + Prog. Asst. + Pract. : 250
6. Grand Total : 850

Passing marks for (a) Theory : 33% (b) Practical : 40%
(c) Sessional : 60%

CURRICULUM

FOR

DIPLOMA IN CEMENT TECHNOLOGY

(SIXTH SEMESTER)

Scheme: JULY2008
Implemented from session 2008-09

Under semester system

JULY 2008

CURRICULUM DEVELOPMENT CENTRE
CEMENT TECHNOLOGY DEPARTMENT

RAJIV GANDHI PROUDYOGIKI VISWAVIDYALAYA, BHOPAL

DIPLOMA IN CEMENT TECHNOLOGY

SEMESTER: **SIXTH** SCHEME: **Dip. CT_JULY 2008**
COURSE CODE: **601** COMMON WITH PROGRAMME (S):
NAME OF COURSE: **BUILDING MATERIAL AND QUALITY CONTROL**
PAPER CODE: 6312

ATIONALE

The purpose of building material subject is to familiarize with various applications of building materials in different types of construction and requirements of consumers of cement in terms of quality characteristics after completion of this course a student will be familiar with the quality requirements of cements and other building materials for different applications and guide the marketing strategies.

The purpose of the quality control subject is to familiarize with various techniques of quality control in a cement plant. After the completion of this course a student will be familiar with the quality control measures and able to implement than in the manufacture of cement.

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DIPLOMA IN CEMENT TECHNOLOGY

SEMESTER: **SIXTH** SCHEME: **Dip. CT_JULY 2008**
COURSE CODE: **601** COMMON WITH PROGRAMME (S):
NAME OF COURSE: **BUILDING MATERIAL AND QUALITY CONTROL**
PAPER CODE: 6312

SCHEME OF STUDIES SPECIFICATION TABLE

Lectures:**6** Hrs. Per week
Practical: **2** Hrs. per week

S. NO.	TOPIC	SCHEME OF STUDIES Hrs. of Study			SUGGESTED DISTRIBUTION OF MARKS FOR THEORY PAPER
		Theory	Practical	Total	
1.	Various applications of Cement and performance requirements	6	4	10	10
2.	Promoting blended cements	4	2	6	12
3.	Applications of other building materials	4	2	6	14
4.	Statistical concepts in Q.C.	8	4	12	12
5.	Control charts for variables	8	4	12	12
6.	Control charts for attributes	8	4	12	10
7.	Acceptance sampling	8	4	14	10
8.	Input control	8	4	12	10
9.	National and international specifications	6	2	8	10
	TOTAL	60	30	90	100

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NAME OF COURSE: **BUILDING MATERIAL AND QUALITY CONTROL**
PAPER CODE: 6312

COURSE CONTENT

Lectures: 6 Hrs. per week

S. NO.	Course Content	Hours of Study
1.	**Various applications of cement and performance requirement** Concrete, shot Crete and mortars, buildings, bridges, highways, industrial structures and irrigation structures etc. Requirements of setting, strength and durability of different concrete constructions, affects of chemical composition and physical characteristics of cements on performance, fineness and particle size distribution, creating awareness about good constructions practices.	
2.	**Promoting blended cements** Performance of blended cements, reservations amongst consumers, creating awareness about advantages of Portland pozzolana cements and Portland stag cements.	
3.	**Applications of other building materials** Plastics, polymers, refractory materials, insulating materials	
4.	**Statistical concepts in Q.C.** Definition of quality and total quality, Difference between inspection and quality control, Classification of quality characteristics, Basic tools of S.Q.C. and their application, Treatments of variability, histograms, means, standard deviations,	

	co-efficient of variation, normal distribution control charts.	
5.	**Control charts for variables;-** Statistical basic for control charts for variables, construction of Xbar and R charts- their interpretation, use of Xbar and R chart in establishment of process capability	
6.	**Control charts for attributes:-** Limitations of Xbar and R charts, meaning and use of attributes, their advantages, calculation, construction, interpretation, and application of p-chart, c-chart, pn-chart. Need of calculating the revised values of mean and control limits and their calculation.	
7.	**Acceptance sampling**:- Meaning, different techniques, procedure involved sampling, inspection-meaning and comparison with 100% inspection. Factors affecting sampling and their effects. Single and double sampling plans, use of IS codes. O.C. curve- meaning and terms used their definition, construction and use of o.c. curves. selection of sampling plans	
8.	**Input control** Control of input at various stages of production, control of raw materials, raw meal and kiln feed, chemical composition and physical characteristics, norms of control.	
9.	**National and International specifications** BIS, ASTM and EN standards, differences in test methods, comparison of requirements	

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PAPER CODE: 6312

COURSE CONTENT

Practical: **2** Hrs. per week

S. NO.	LIST OF EXPERIMENTS.	Hours of Study
1.	Preparation of Xbar and R chart.	
2.	Preparation of p-chart.	
3.	Preparation of c-chart.	
4.	Proof of sampling techniques.	
5.	Acceptance sampling by attributes (single and double	
6.	sampling plans).	
7.	Determination of compressive strength of concrete.	
8.	Determination of compressive strength of different blended	
9.	cements.	
	Study of different refectory materials.	
10.	Study of different insulating materials and calculation of their	
	critical thickness.	
	Study of plastic materials.	

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REFERENCES

- Quality assurence engineering By M.D. Schimid & Subramanium
- S.Q.C. By E.L. grant
- S.Q.C. By R.C.Gupta
- Khanna O. P., Industrial Engineering and Management, Khanna Pub., New Delhi.
- Concrete Microstructure, Properties and Materials, By P.K. Mehta and P.J.M. Monteiro.
- Indian Edition, Indian Concrete Institute, Chennai.
- Handbook of concrete Mixes, SP-23 (ST) Bureau of Indian Standards, New Delhi, BIS Standards.
- IS:456-2000 Code of Practice for plain and reinforced concrete.
- IS:383-Specification for Aggregates from Natural sources.
- IS:9103-Specification for Chemical Admixture.
- IS:516 and IS:1199-Methods of testing concrete.
- IS:3812-Methods of testing of Aggregates.

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DIPLOMA IN CEMENT TECHNOLOGY

A
SEMESTER: **SIXTH** SCHEME: **Dip. CT_JULY 2008**
COURSE CODE: **603** COMMON WITH PROGRAMME (S):
NAME OF COURSE: **PLANT MAINTENANCE AND SAFETY**

PAPER CODE: 6313

RATIONALE

Maintenance of machine prolongs the life as well as performance of a machine. Well maintained machines minimize the break down and production held ups. The importance of maintenance in planning and scheduling production (by keeping downtime to a minimum and to increase productivity) is to meet the production targets.

In an industry, safety may be considered from mechanical side (equipments, tools etc.) as well as workers side. More emphasis is given on the motivation towards safe work practices. Safety engineering, safety management and safety organization have been kept in this course to provide engineering aspects of safety, accident reporting, factory Act and Regulations, fire prevention and protection, concept of occupational health and safety awareness.

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DIPLOMA IN CEMENT TECHNOLOGY

SEMESTER: **SIXTH** SCHEME: **Dip. CT_JULY 2008**
COURSE CODE: **603** COMMON WITH PROGRAMME (S):
NAME OF COURSE: **PLANT MAINTENANCE AND SAFETY**
PAPER CODE: 6313

SCHEME OF STUDIES AND SPECIFICATION TABLE

Lectures: 6 Hrs. Per week
Practical: **2** Hrs. per week

S. NO.	TOPIC	SCHEME OF STUDIES Hrs. of Study			SUGGESTED DISTRIBUTION OF MARKS FOR THEORY PAPER
		Theory	Practical	Total	
1.	Introduction to plant maintenance	06	-	06	
2.	Maintenance Management system	08	-	08	
3.	Leveling & alignment	08	04	12	
4.	Material Handling equipments	08	04	12	
5.	Material transportation equipments	12	02	14	
6.	Grindings Mills	06	06	12	
7.	Rotary Kiln	06	06	12	
8.	Clinker Coolers	06	02	08	
9.	Packing Machines	04	02	06	
10.	Safety Engineering	10	02	12	
11.	Safety Management	08	02	10	
12.	Safety Organization	06	-	06	
	TOTAL	90	30	120	

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DIPLOMA IN CEMENT TECHNOLOGY

SEMESTER: **SIXTH** SCHEME: **Dip. CT_JULY 2008**
COURSE CODE: **603** COMMON WITH PROGRAMME (S):
NAME OF COURSE: **PLANT MAINTENANCE AND SAFETY**
PAPER CODE: **6313**

COURSE CONTENT
Lectures: **6** Hrs. per week

S. NO.	Course Content	Hours of Study
1.	**INTRODUCTION TO PLANT MAINTENANCE** Introduction to maintenance, its need and scope, classifications, primary and secondary functions of the maintenance department. Duties, functions and responsibilities of plant maintenance department. Nature of maintenance problems in case of (a) rotating parts (b) reciprocating parts, economic aspects and development trends in maintenance.	06 08
2.	**MAINTENANCE MANAGEMENT SYSTEM** : (a)Preventive maintenance, Predictive maintenance, Breakdown maintenance, conditioning, monitoring. (b)Store management covering equipment history cards, inventory control spare parts storage, location, receipts and issues etc. (c) Minimum/maximum stock level concept	 08

3.	**LEVELING AND ALIGNMENT:** Leveling of bed plates and shafts and grounding of same. Tolerances, different methods for alignment and related tolerances.	08
4.	**HANDLING OF EQUIPMENT:** Chains, ropes and their fastening, chain pulley blocks, wrenches, cranes, elevators safe working loads.	08
5.	**MAINTENANCE OF PARTS AND MECHANICS OF PRODUCTION EQUIPMENT:** Shafts, bearings, coupling, clutch, gear wheels, pulleys, reciprocating machines, fan impeller.	06
6.	**EQUIPMENT REPAIR PROCEDURE:** Dismantling of gear boxes, fans, compressors, pumps, washing and fault finding, wear limits for shafts, gears, piston rings fan blades etc. Testing of repaired machine balancing of rotating parts, testing of safety devices.	06
7.	**MATERIAL TRANSPORTATION EQUIPMENT:** Conveyor belts-Hot and cold vulcanizing, Tensioning of belts. Screw-hanger bearing FK pumps-Air seals, bushes pneumatic pumps (wear of pipes, adjustment of pressure and time settings) Air slides chain conveyors, table feeders, Rotary feeders, Apron feeders, Bucket Elevators.	06
8.	**GRINDING MILLS** (a) Tube Mill-Linear, Diaphragms, Lifters, bearings, girth gears and pinion, safety devices, lubricating system alignment of mill.	

	(b) Vertical Roller Mills- Main drive assembly, rocker arm assembly, hydraulic system, grinding roller assembly, classifier swing out equipment. (c) Grinding media sorting, Degradation and charging in the ball mill.	06
9.	**ROTARY KILN-** (a) Construction- body support rollers, air seals, riding rings, thrust roller, drive system auxiliary drive. (b) Maintenance-Air seals lubricating system, girth gear, adjustment of roller, Motion of riding rings lead wire tests on rollers wear of rollers. (c) Kiln alignment- Piano wire method, light beam method, luster beam method. (d) Installation techniques for refractory lining materials of rotary kiln and various part of pyroprocess system.	06 04
10.	**CLINKER COOLERS**- Different types of coolers, maintenance of features of these coolers.	06
11.	**PACKING MACHINES-** Constructional feature, adjustment for correct weight, maintenance, safety devices.	6
12.	**SAFETY ENGINEERING-** Safety principles and practices, safe layout. <u>Engineering Aspects of Safety-</u> -Machine tools/Equipments safety, guarding/interlocking/vibration-damping etc.	

	-Safety during manufacturing processes like welding, clinkerisation Grinding, Machining, handling of chemicals etc. -Regular plant inspection and safety Audit, Hazard Analysis. -Safety of electrical installations and general electrical safety practices. -Safety during material handling in shops.	06
13.	**SAFETY MANAGEMENT:** Accidents -Menereich experiments, Accidents causes/body part affected, Accidents classified (minor, reportable, fatal, dangerous occurrences) -Factory Act and Regulation : Salient Points. -Electric Regulations :Salient Points -Safety Measurement and analysis of accidents. -Enquiry committees and implementation of recommendations. -Fire prevention and protection. -Fire potential areas. -Fire fighting measures: Equipments, training, requirements, regular drill -First Aid -Concept of Occupational Health. -Industrial Hygiene, First Aid. -Occupational disease and control measures. -Managing Noise/Dust Fumes/Heat Stress/Ventilation. -Personal protective equipments for head, face, eye, ear, respiratory organ and other body parts and training to workers.	06

14.	**SAFETY ORGANISATION-** Safety organization, safety committees. -Safety stewards system. -Safety procedures and systems, Management Instructions. -Training and exposures to safety. Supervisor's special role. -Regular safety communications. -Participations of employees in safety activities programmers. -Safety awareness, Posters, Safety guidelines in shops and at vantage points.	

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DIPLOMA IN CEMENT TECHNOLOGY

SEMESTER: **SIXTH** SCHEME: **Dip. CT_JULY 2008**
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PAPER CODE: **6313**

LIST OF EXPERIMENTS

Practical: **2** Hrs. per Week

S. No.	Name of experiments	Hours of study
1	Measurement of level by master level.	
2	Alignment of one set of machines.	
3	Location of crack in metals using dye penetrant.	
4	Location of crack in metals using ultrasonic test.	
5	Inspection of a defective wire rope.	
6	Fitting of a ball bearing.	
7	Static balancing of a fan impeller.	
8	Hot vulcanizing of a conveyer belt.	
	TOTAL	32

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DIPLOMA IN CEMENT TECHNOLOGY

Demonstration

1. Alignment of tube mill.
2. Study of Rocker Arm Assembly and Hydraulic system of a vertical roller mill.
3. Alignment of kiln.
4. Demonstration and operation of protective equipments.
5. Demonstration of operations of fire extinguisher equipments.
6. Visit of large/Medium/small cement industries for collecting information in respect of safety measures taken during material handling, handling of electrical devices, fire accident, processes etc.

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DIPLOMA IN CEMENT TECHNOLOGY

SEMESTER: **SIXTH** SCHEME: **Dip. CT_JULY 2008**
COURSE CODE: **603** COMMON WITH PROGRAMME (S):
NAME OF COURSE: **PLANT MAINTENANCE AND SAFETY**
PAPER CODE: 6313

REFERENCES

TEXT BOOKS:

- Industrial Maintenance, by H.P. Garg, Published by S.Chand & co. Ltd., New Delhi.
- An introduction to safety Engineering and management, By N.V.Krishnan, C.P.S. Publishers Pvt. Ltd. Calcutta 700 001.
- Industrial Management by O.P.Khanna.

REFERENCE BOOKS:

- Learning Package in Maintenance Engineering, CDC, TTTI, Bhopal, Published by Ram Prasad & sons, Agra.
- Maintenance Engineering Hand Book, By Lindley R, Higgins, Published McGraw Hill Book Co., New York.
- Accident Prevention Manual for industrial operations .By Frank E.McElroy, P.E., C.S.P., Editor in chief national safety council Chicago, U.S.A.
- Commentaryon Factories Act with M.P.Rules. By Krishnlal Sethi, The Lawyers Home, Indore-7

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DIPLOMA IN CEMENT TECHNOLOGY

SEMESTER: **SIXTH** SCHEME: **Jul.08**
COURSE CODE: **604**
NAME OF COURSE: **PROJECT**

Practical: **12** Hrs. per week

RATIONALE

The world is changing before our eyes. To meet the current growth and expansion plans the organization of today requires project engineers / managers and hence the necessity of incorporating "Project" course in the curriculum.

In this highly competitive environment all organizations require technical personnels in the following domain :- **"He should not be one of those who manages to make no decisions and escapes all responsibilities".**

Project activities will help the students to recall their own experiences/learning and build concepts around them.This course is designed to connect technical/engineering that they study in the college with their everyday life.

He is exposed to analyse the market and prepare technical/financial/pre-feasibility/feasibility studies. This process improves his euphuism and he soon becomes an exegetic engineer.

A textile diploma student has a very vast scope of preparing project because textile industry provides one of the most fundamental necessities of life.

He is exposed to work in group. Different groups use different strategies. The exposure to a variety of strategies deepens his technical understanding.

The objectives of course "Project" are :

- To develop the ability to interact with technical personnels in this fast paced environment, remaining flexible, proactive and resourceful with a high level of professionalism and confidentiality.
- To provide the student with space, time, freedom for contemplation and wondering.
- To produce engineers who will be equipped with the unique talent of translating an ordinary idea into an extraordinary one .
- To produce engineers who will have the capacity to organize , emulate, take decisions and will not skedaddle from taking responsibility

- To develop the ability to endure the stifle atmosphere when he is caught in the cul – de – sac.
- To prepare students to assume their roles as responsible citizens of tomorrow.
- To sensitise them the issues concerning gender, religion, environment, health and hygiene, energy conservation, global warming etc.
- To help the students to concieve the value of cooperation and the importance of peer learning.

The purpose of providing six hours per week is to orient the student's in-groups on the following objectives:

- Provide general guidelines regarding execution of work.
- Impart instructions regarding write-up work and preparation of project documents.
- Sharing and solving common problems associated with execution of project work.
- Monitor and evaluate the progress of project work.

The faculty and student should work according to the following schedule:

1. Each student undertakes substantial and individual project in an approved area of the subject and supervised by member of staff.
2. The student must submit outline and action plan for the project execution (time schedule) and the same be approved by the concerned faculty.
3. The project development must be carried out according to following steps and final write-up should have the same sequence.
    - Project objectives.
    - Requirement gathering.
    - Modelling of project should be done in any well- known modelling tools.
    - Analysis of Project.
    - Design of Project.
    - Implementation of project.
    - Testing on project.
    - Quality consideration of project.
    - Designing a small user manual.
    - Estimating the cost of the project.
    - Future scope and suggestions.

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DIPLOMA IN CEMENTOLOGY

SEMESTER: **SIXTH** SCHEME: **Jul.08**
COURSE CODE: **604**
NAME OF COURSE: **PROJECT**

ACTION PLAN FOR PROJECT WORK AND EVALUATION SCHEME # (SUGGESTIVE):

TASK/PROCESS	WEEK	EVALUATION
• Orientation of students by HOD/Project supervisor	1st	-
• Literature survey and resource collection	2nd	
• Selection and finalization of topic before a committee*	3rd	
• Detailing and preparation of project (Modelling, Analysis and Design of Project work)	4th to 6th	Seminar-I
• Development Stage	7th to 11th	
• Testing, improvements, quality control of project	12th	-
• Acceptance testing	13th	-
• Report writing	14th	-
• Presentation before a committee (including user manual)	15th	- Seminar-II

* Committee comprises of HOD, all project supervisors including external guide from industry (if any).
# the above marking scheme is suggestive, it can be changed to alternative scheme depending on the type of project, but the alternative scheme should be prepared in advance while finalizing the topic of project before a committee and explained to the concerned student as well.

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DIPLOMA IN CEMENT TECHNOLOGY

SEMESTER: **SIXTH** SCHEME: **Jul.08**
COURSE CODE: **604**
NAME OF COURSE: **PROJECT**

REFERENCES / SOURCES FOR GUIDANCE TO STUDENT FOR SELECTION OF PROJECT WORK:

1. Cement magazine and journals
2. District Industries Center.
3. Industry-Institution Interaction (III)
4. Small Scale industry
5. Industrial problems discussed during industry visit/training.
6. Entrepreneurship development Board Magazine.
7. “Prime Minister Rojgar Yojana” projects from district Collectorate.

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DIPLOMA IN CEMENT TECHNOLOGY

SEMESTER: **SIXTH** SCHEME: **Jul.08**
COURSE CODE: **605**
NAME OF COURSE: **PROFESSIONAL ACTIVITIES**

Practical: **2** Hrs. per week

RATIONALE

Professional Activities is not a descriptive course, as per conventional norms; therefore specific content for this course cannot be prescribed. It is a group of open-ended activities; where in variety of tasks are to be performed, to achieve objectives. However general guidelines for achieving the target and procedure for its assessment are given under the course content.

As the student has to practice this course in all the six semesters, the guidelines given therein are common and applicable to each semester.

OBJECTIVES:

- To allow for professional development of students as per the demand of engineering profession.
- To provide time for organization of student chapter activities of professional bodies) i.e. Institute of engineers, ISTE or Computer Society of India etc.)
- TO allow for development of abilities in students for leadership and public speaking through organization of student's seminar etc.
- To provide time for organization of guest lectures by expert engineers/eminent professionals of industry.
- To provide time for organization of technical quiz or group discussion or any other group activity.
- To provide time for visiting library or using Internet.
- To provide time for group discussion or solving case studies.
- To provide time for personality development of students.
- To provide time for working for social cause like awareness for environmental and ecology etc.

DETAILED INSTRUCTIONS TO CONDUCT PROFESSIONAL ACTIVITIES:

TT. Study hours, if possible should be given greater time slot with a minimum of two hrs/week to a maximum of four hrs/week.

UU. This course should be evaluated on the basis of grades and mark sheet of students, should have a separate mention of the grade awarded. There will be no pass/fail in professional activities (PA).

VV. Following grade scale of evaluation of performance in PA has been established.

Grades	Level of performance
A	Excellent
B	Good
C	Fair
D	Average
E	Below Expectations

WW. Grades once obtained in a particular examination shall become final and no chance of improvement in grades will be given to the students.

XX. Assessment of performance in PA is to be done internally by the Institution, twice in a Semester/Term through a simultaneous evaluation of the candidate by a group of three teachers, of the deptt. Concerned. Group of teachers will jointly award the grade to candidate in the assessment. Best of the grades obtained by the student in these two assessments shall be finally taken on the mark sheet of the respective Semester/Term.

Candidate abstaining from the prescribed course work and/or assessment planned at the Institute shall be marked ABSENT in the mark sheet, instead of any grade.

YY. While awarding the grades for performance in PA, examining teacher should reach the final consensus based on the attendance, punctuality, interest, presentation skills in seminar on the topic assigned (collection of relevant data, observations, analysis, findings/conclusion) and its written report, awareness of latest developments in the chosen programme of study.

ZZ. Institution shall maintain the record of grades awarded to all the students in PA for a period of 1 year.

AAA. It shall be mandatory for students to submit a compendium for his PA in the form of a Journal.

BBB. Compendium shall contain following:

XXXVI. Record of written quiz.

XXXVII. Report/write up of seminar presented

XXXVIII. Abstract of the guest lectures arranged in the Institution.

XXXIX. Topic and outcome of the group discussion held.

XL. Report on the problems solved through case studies.

XLI. Report on social awareness camps(organized for social and environmental prevention).

XLII. Report on student chapter activities of professional bodies like ISTE, IE (India), CSI etc.

O. PA is not a descriptive course to be taught in the classroom by a particular teacher. Various activities involved in the achievement of objectives of this course should be distributed to a number of teachers so that the talent and creativity of group of teacher's benefit the treatment of the course content.

These activities should preferably be conducted in English language to maintain continuity and provide reinforcement to skill development.

Small groups shall be formed like in tutorials, group discussion, case studies, seminar, project methods, roll play and simulation to make the development of personality affective.

Treatment of PA demands special efforts, attention, close co-operation and creative instinct on the part of teachers of department concerned. Since this course is totally learner centered, many of the activities planned under this course shall come out from the useful interaction of student, among themselves and with the teachers. The guide teacher/s shall best act as a facilitator of these creative hunts/ exercises, which unfold many of the hidden talents of the students or bring out greater amount of confidence in them, to execute certain activity.