

Format for Preparation of Research Proposal

SCHEME

SCIENCE AND ENGINEERING RESEARCH COUNCIL

**GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
TECHNOLOGY BHAVAN, NEW MEHRAULI ROAD
NEW DELHI - 110 016**

INTRODUCTION

This document provides guidance for preparation and submission of project proposals for support under the Science and Engineering Research Council (SERC) of the Department of Science and Technology (DST).

PART A : General Instructions

For any further clarifications please contact:

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SERC DIVISION
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
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PART A: GENERAL INFORMATION AND INSTRUCTIONS

Introduction

The Science and Engineering Research Council (SERC) was established in 1974 and is an apex body through which the Department of Science and Technology promotes R&D programmes in newly emerging and challenging areas of science and engineering. SERC consists of eminent scientists, technologists drawn from various universities/national laboratories and industry. This Council is assisted by Programme Advisory Committees (PACs) in various disciplines of Science & Engineering. As a part of its Science and Engineering Research Council Programme, the Department of Science & Technology considers time-bound research proposals for financial support. SERC provides an integrated and cohesive approach for supporting R&D Programmes.

Broadly, the objectives of the SERC are as follows:

- To promote research in newly emerging and frontier areas of science and engineering including multidisciplinary fields.
- To selectively promote the general research capability in relevant areas of science and engineering taking into account capability of the host institutions.
- To encourage young scientists to take up challenging R&D activities.
- To give special encouragement to active scientists from relatively small and less endowed University Departments and Institutions.

SERC activities may be classified under the following broad disciplines:

- Chemical Science }
- Earth & Atmospheric Science }
- Engineering Science } Documents "Vision for R&D" in each of these disciplines are
- Life Science } available on request.
- Mathematical Science }
- Physical Science }

Activities supported under SERC

- Project support to individual scientist and technologist
- Unit/Centre and Core group around outstanding scientist/Group
- Setting up of National Facilities to promote research

This format may be used for submission of proposals by individual scientists and technologists as also for setting up of an Unit/Centre and Core Group around outstanding scientist or group of scientists.

Proposals for setting up of National Facilities to promote research may be submitted by group of investigators within the same Department or from several Departments within an institution or institutions within a region. Investigators may be working in related areas or their research may be multi-disciplinary in nature. However, while submitting proposal for setting up a National Facility, the Investigator(s) will have to provide the following additional information as a part of the proposal:

- i) need and justification for the facility including the equipment(s);
- ii) proposed organisational structure;
- iii) details of R&D programme of scientists from other institutions/departments interested in using the facility;
- iv) the competence and area of research of the PI(s) or Group of PI(s) along with the Bio-data of the programme team;
- v) Self-Assessment reflecting specific competence of the Principal Investigator(s) for undertaking the programme and justification for choosing the location of the proposed facility;
- vi) Necessary supporting documents from the users may be attached along with the proposal.
- vii) Participation of the Parent Institution (financial)/other S&T agencies/ State Government Departments or private industry (financial as well as technical) in such projects.

Who are eligible

The **Scientists and Technologists** who are working in the academic sector, National labs and other recognised R&D institutions and Centres of Excellence are eligible for SERC support.

Research proposals from scientific institutions/research laboratories under various scientific departments, which are in line with the normal research activities of these institutions may not be considered for support under SERC. Only research proposals outside the normal activities of such institution (i.e. National R&D Programmes, Programmes in newly emerging and front-line areas of research etc.) will be considered. Further, proposals involving purely survey-oriented work and routine studies will not be normally considered.

Modalities

The approach to support research in carefully identified thrust areas under various disciplines will continue with the objective of formulating coordinated thrust areas programmes by inviting the concerned Scientists to present their proposals in related areas of the Programme Advisory Committees constituted for this purpose.

Guidelines

- i) The project proposals for consideration under the SERC Scheme can be submitted anytime throughout the year.
- ii) The Investigators may submit 20 copies of the proposal printed on both the sides of A4 size paper, properly stapled and without spiral binding along with the electronic copy of the proposal on a 1.44 MB floppy, preferably in MS Word.
- iii) The proposal should be prepared and submitted strictly according to the formats prescribed in this document.
- iv) The duration of the project should be of 3 years normally. Projects for setting up of research facilities/Units or Core group may be of 5 years duration.
- v) Please read explanatory notes and detailed instructions carefully for completing each section of the prescribed format while preparing the proposal.
- vi) Copies of the proposal and other required documents must be sent in one lot through proper channel to Member Secretary (SERC) at the address mentioned above. If the copies of the proposal are mailed in more than one package, the number of packages should be marked on the outside of each package.
- vii) Please contact DST if the acknowledgement letter mentioning the registration number of the project is not received within one month from the date of dispatch of the proposals.
- viii) Please make sure to quote the registration number/letter number (given by the DST) and title of the proposals in all your future communications.
- ix) The information should be given under each section, even if it is Nil. No Annexure(s) should be enclosed along with the project proposal.

GENERAL TERMS AND CONDITIONS

1. The Principal Institution implementing the project assumes financial and other administrative responsibilities of the project.
2. In case of multi-institutional project the Principal Investigator (PI) has to obtain formal agreement from the collaborating institutions/scientists.
3. International travel is not normally permissible under the project.
4. The manpower recruited for the project are temporary and should be paid as per the rules of the institute and guidelines of the Govt. of India.
5. It is the policy of DST to maximize the use of an equipment. In this light, investigator shall permit the use of spare or ideal capacities of equipment procured under the project by bonafide users from the parent or nearby institutes (research workers in other DST funded projects or other projects of the institute).
6. The proposals are scrutinized by experts in the field and after a peer review by PAC/Expert Committee, the SERC takes the decision.
7. The role of the Co-PI(s) in the project should be clearly spelt out.
8. In case of retired scientists there should be a CO-PI who will be in service during the duration of the project.

Special Guidelines:

1. Projects which involve Recombinant DNA work should be examined and certified by Institutional Bio-safety Committee. Certificate from the committee should accompany the project proposal. Guidelines for constitution of Institutional Bio-safety Committee and related information can be obtained from:

Dr. P K Ghosh
Adviser,
Department of Biotechnology
CGO Complex, Lodi Road,
Block No. 2, Floor-7, Room No. 12,
New Delhi - 110 003,
Telephone: 4363989, 4363012, 4360899,
Fax : 4363018, 4362884.

2. Projects which are clinically oriented or projects which involve experiments with human and/or animal material should be examined and certified by Institutional Ethical Committee. Certificate from this Committee should accompany the project proposal. Guidelines for constitution of Institutional Ethical Committee can be obtained from:

The Director General
Indian Council of Medical Research
Ansari Nagar
New Delhi - 110029
Telephone: 6963980, 6962895, 6962794.
Fax: 6868602.

3. Proposals in the area of Earth Sciences should contain the geological map of the region to be studied.

Note: Projects in areas which are of direct relevance to the programmes of the Department of Biotechnology, Ministry of Environment & Forests, Ministry of Non-Conventional Energy Sources, Indian Council of Medical Research, Indian Council for Agricultural Research, Department of Ocean Development etc. may be sent directly to these Ministries/Agencies.

DOCUMENTS/ENCLOSURES REQUIRED WITH THE PROPOSAL

Item	Number of copies
a) Endorsement from the Head of Institute (on letter head)	one
b) Certificate from investigator(s)	one
c) Details of the proposal from Section 101 to 500 (stitched) + one soft copy on 31/2" floppy, preferably in MS Word	20
d) Name and address of experts/institution interested in the subject/outcome of the project.	1
e) Sheet containing sections 101 to 192	1
f) Cover Sheet by the Investigator	1

1. I/We agree to abide by the terms and conditions of the SERC research grant.
2. I/We did not submit the project proposal elsewhere for financial support.
3. I/We have explored and ensured that equipment and basic facilities (enumerated in Section 420) will actually be available as and when required for the purpose of the projects. I/We shall not request financial support under this project, for procurement of these items.
4. I/We undertake that spare time on permanent equipment (listed in Section 350) will be made available to other users.
5. I/We have enclosed the following materials:

Items	Number of copies
a) Endorsement from the Head of Institution (on letter head)	one
b) Certificate from Investigator(s)	one
c) Details of the proposal from Section 101 to 500 (stitched) + one soft copy on 3 1/2" floppy, preferably in MS Word	
d) Name and address of experts/institution interested in the subject/outcome of the project.	1
e) Sheet containing sections 101 to 192	1
f) Cover sheet by the investigator	1

Name and Signature of Principal Investigator

Date :

Place:

1. Certified that the Institute welcomes participation of as the Principal Investigator and as the Principal Co-Investigator for the project and that in the unforeseen event of discontinuance by the Principal Investigator, the Principal Co-Investigator will assume the responsibility of the fruitful completion of the project (with due information to DST).
2. Certified that the equipment and other basic facilities as enumerated in Section 420 and such other administrative facilities as per terms and conditions of the grant, will be extended to the investigator(s) throughout the duration of the project.
3. Institute assumes to undertake the financial and other management responsibilities of the project.

Name and Signature of Head of Institution

Date:

Place:

NB: In regard to the research proposals emanating from scientific institutions/laboratories under various scientific departments, the Head of institution is required to provide a justification indicating clearly whether the research proposal falls in line with the normal research activities of the institution or not and if not, the scientific reasons which merit its consideration by DST.

PART B: PRESCRIBED FORMAT

General Instruction for formulation of the project proposal

Section 101: Project title

Project title should be within 150 characters (30 characters in each line). A title "Investigations of the Magnetic Properties of certain compounds of Transition metals with Rare Earth" may be sharpened to "Magnetic Properties of Rare Earth Transition Metal Compounds" (Underline the key words).

Section 102: Broad Subject

Please mark only one of the boxes. In case of projects with inter-disciplinary characteristics, also mark the area towards which it is more inclined.

Section 103: Sub-Area

A list of the broad subject wise existing PAC has been provided to enable the investigator to mark the PAC which would be able to peer review the proposal in a justifiable way.

Section 104: Duration

Expected total duration of the project may be expressed in months. Proposed duration should normally not exceed 36 months.

Section 105 & 106: Total cost & FE Component

Give the total cost of the project in rupees. Foreign exchange component, if any, of the total cost may be given in terms of US \$ equivalent. The budgetary projections should take into account the existing norms in case of manpower and should be as realistic as possible in case of equipment costs.

Section 107: Project Category

The Investigator should indicate the category of the project in order to peer review the proposal in a justifiable way.

Section 111 to 117 : Investigator and Principal Implementing Institution

Indicate the status (Govt./autonomous/private etc.) of the institution. In case of private or registered society a bond has to be executed after approval of the proposal. However, the copies of the annual activity report and audited annual accounts of the society for the last two years should be enclosed along with a copy of the SIRO certificate.

While writing names write the surname first. Give date of Birth in date, month and year format each consisting of 2 digits.

Section 118 to 138: Collaborating Investigators/Institutions

In case a project is to be executed by more than one institution (which is welcomed) and/or requires regular inputs from other Scientists, the names of collaborating institutions and Scientists are to be recorded.

Section 191: Project Summary

Use separate sheet for sections 191 & 192. Give project title, PI name, name of Institution(s) involved before writing the summary.

Written in telegraphic language, the summary should be a self-contained description of the research activity including (a) research objectives (b) methodology to be adopted and (c) expected outcome of the project. This summary may be published in the list of on-going projects and will be widely circulated amongst scientists/scientific institutions interested in the subject. In order to facilitate the circulation, a list of potentially interested individuals/institutions (with addresses) is required to be furnished along with the proposal.

Section 192: Subject Keywords

Please suggest not more than ten keywords that best describe the project. This is to facilitate systematic information storage and retrieval. Your library staff may help in selection of Keywords. Kindly underline these keywords wherever used in project summary.

Section 211: Origin of the Proposal

Identify the stimuli which prompted preparations and submission of the project proposal to the DST. The source of stimuli could be the National Five Year Plan (S&T Chapter), state-of-art-report or other reports published by the DST, proceedings of a special workshop/seminar, announcements by DST on Thrust Area Programmes/Vision Documents, an earlier project etc. in all such cases, give specific details so that the source is clearly identifiable. If the project has not such origin, please state so.

Section 212: Definition of the Problem

Please give precise technical statement of only those problems which the project is expected to cover within the specified duration (normally 3 years).

A historical or general introduction to the area will not be title appropriate under this like head and should be given under 220. For example, do not include a statement. The problem of utilisation of agricultural wastes is important for national economy..... Specifically rice bran. Japan has developed technology for edible rice bran oil..... Removable of free-fatty-acids is an important problem for making edible rice bran oil....." Instead, a straight forward definition of the problem could be "Stabilisation of fresh rice bran is necessary for preventing rapid rise of free fatty acids. As oils with high FFA are difficult to refine, the problem of stabilisation of rice bran through chemical mode using sodium metabisulphide is to be studied. In addition, its peculiar odour needs to be removed for making it acceptable as edible oil".

Section 213: Objectives

Instead of an essay, it is suggested that the objectives be spelled out point by point in telegraphic language keeping in view the definition of the problem outlined in Section 2.12. For example, the objective of the rice bran problem could be written as:

1. To examine alternative chemical modes for stabilisation of rice bran oil.
2. To determine the exact source/cause of odour and to explore methods for its removal.

Section 221 to 222: State of knowledge

Please indicate the recent development in the proposed field of work, both in the country and in other parts of the world. This should be in 2 separate parts (namely Indian and International situations) and based on literature survey. In the literature survey, inclusion of list of important review articles, if available, is recommended. This section will enable the referees to appreciate the effort that has been put in preparing the project proposal.

Section 223: Importance of the proposed project/Justification for subject area

The importance of the Project should be brought out in this section in the light of the international and national state of knowledge on the subject. This could be done in two parts:

- (a) Matters relating to scientific and technical advancement of knowledge.
- (b) Issues concerning application of the new knowledge to socio-economic advancement of the country such as, production of quality commodities for internal consumption leading to better life-style, resource conservation, import substitution, export earnings, employment generation, uplift of economically weaker sections, development of cottage and small scale industries etc.

Section 224: Review of expertise

The section is essentially to summarise the background (details to be enumerated in section 430 and professional experience (details in section 450) of the investigators to establish credential for undertaking the project and to highlight relevance of the project to the research already going on in the sponsoring institution. Nevertheless, a research venture by the investigators in an entirely new field, will also meet due consideration.

Section 225: Patent details (domestic and international)

Mention may also be made of any patents being filed in the area along with its brief details including the patent no., title of the patent, assignee details, year of grant, country where granted.

Section 231: Methodology

It is essential that from this statement the other experts in the field should get a clear understanding of the research technique to be employed in the project as distinct from data/sample collection activities and routine activities. Further, the description should indicate precisely how the stated objectives will be achieved. The history of creation

of new knowledge in the area (narrated in sections 221 and 222) should not be repeated here. Discuss different methods of approach in order of priority.

Section 232: Work elements

In this section the entire project activity is to be broken down to specific work elements in consonance with the objectives and methodology defined in the earlier sections. While doing so, equal emphasis should be given to

- (a) Technical work elements, such as designing the experiment/model, making observations/calculations, etc.
- (b) Administrative work elements e.g. selection of equipment and obtaining quotations, obtaining certificates like NMI, CDE etc., recruitment of staff etc.

Further, for multi-institutional projects, this section should be utilised to indicate the distribution of functional responsibilities between the principal and collaborating institution(s) and the mechanism for coordination.

Section 233: Time schedule of activities giving milestones

On the basis of work elements identified earlier, the time schedule should be drawn. Here specific indications of milestones would be worthwhile. These milestones will help in periodic evaluation of the progress of the project. It is once again cleared here that lead time for creation of infrastructural facilities be computed on realistic basis.

Section 234: Utilisation of research results

It is necessary to widely disseminate the research results and to facilitate their use by other teaching and research communities and industries. The intent of this section is to get an idea of how the interaction between researchers and potential users of research results could possibly be initiated, stimulated and maintained.

In this light therefore, a utilization plan is solicited. This may start with identification of the user community i.e. individuals and institutions. The interaction could be promoted in several ways. For example, selected members of the scientific community may be invited to periodic presentations by the instructors for their expert guidance. The investigators may propose to organize workshops on the subject or to present the results in meetings of professional associations, association of industries, national seminars and the like. However, budget for such activities may not be included in the project proposal since the Department has separate programmes with in-built review mechanism to support such events. Circulation of interim reports to wider audience could be another mechanism. A research leading to development of a process which could possibly be commercialized, should have active involvement of agencies like the Patent Facilitating Cell of DST, the User industry etc. from the inception of the project. Please list appropriate activities with brief description.

Section 300: Budget Estimates

Summary of the budget may be prepared after filling Sections 310 to 350. The estimates of costs of different items involved should be as realistic as possible. All costs are to be expressed in Indian rupees only which should be inclusive of the rupee equivalent of any foreign exchange required for equipment or consumable. If foreign exchange is required for purchase of equipment or consumable, it may be shown in terms of US\$ or equivalent separately.

Section 310 & 311: Budget for Research manpower & Justification for their salaries & wages

It is expected that the major part of the work would be carried out by the PI and the CO-PI. However, some additional scientific and technical manpower may be asked for working full/part time on the project. The manpower requirement may be carefully assessed taking into account the level of personnel required and their likely availability. The salary structure and emoluments etc. will be as prevalent at the parent institution for that category of personnel.

Salaries payable are to be expressed in lump sum amounts indicating the scale of pay.

Detailed justification for the manpower requirement based on your assessment may be given.

Section 320 & 321: Budget for Consumable materials with justification for the use of costly consumable, if any. The budget should clearly indicate the costly consumable items that would be required on a continuing basis or intermittently during the implementation of the project. It should also indicate those items where Foreign exchange is involved.

Section 330 & 331: Budget for travel within India and justification for intensive travel on projects; if any. Investigator, Co-Investigator and the research personnel, working on the project, in connection with the project work like literature survey, monitoring meeting, etc. This travel is within the country. In case of projects involving intensive travel, the requirement may be justified by the PI.

Section 340 & 341: Budget for other costs and justification for the same
Some projects may have special requirements not covered under sections 310 to 330. These requirements could be of computer time, payments for using specialised instrumentation facilities etc. Costs for such requirements are to be indicated, based on estimates, in this section specifying the item under a & b.

Contingencies are meant to cover incidental and other miscellaneous expenditure.

Section 350 & 351: Budget for permanent equipment and justification for the same
Specifically list all items of permanent equipment costing Rs. 50000/- or above, or requiring import. Other minor items may be clubbed. Include provisions for installation charge, inland transport insurance etc. in the estimated cost.

Be as specific as possible while naming the equipment. Indication of the make and model will help identifying the exact nature of the equipment better. For example, instead of mentioning "gas chromatograph", a detailed statement like "PYE-Unichems" Model 304 microprocessor controlled gas chromatograph would be appropriate to define the requirement. Similarly, instead of "Infra Red spectrophotometer", something like "Perkin elmer Model 598" or "Shimadzu Mode IR-408" should be stated. After the project is approved however, the investigators may go in for a different model or make so long as the basic characteristic and costs are comparable to those mentioned in proposal.

In many cases, equipment procured under the project may not be kept occupied full-time studies contemplated. The spare time on equipment could fruitfully be utilized by other researchers engaged in DST sponsored or any other project of the institute. It is the policy of the DST to maximise the use of an equipment. In this light, the investigators are urged to permit the use of spare or idle capacities of an equipment by bonafide users. State the efforts to be made to utilize existing equipment in your department, other departments of the institution, other institutions in the neighbourhood like RSIC, SIF, other National/Regional facilities etc.

Justification for each item of equipment (including their accessories, specific characteristics, resolution etc. in relation to specific experiments/measurements/tests) contemplated in the project is to be given.

In case of a demand for import of equipment, give reasons why indigenous models, if available, cannot be used.

Section 410: Time schedule of activities through Bar diagram

The bar diagram should have work elements/activities as row and time in the column. The suggested time interval is three months. After approval of proposal PI will have to submit a PERT chart. The purpose of the PERT chart is to help in evaluation and monitoring.

Section 420: Existing facilities

Basic infrastructural facilities and equipment that would be extended by the institute to the project should be recorded. Please make sure that these facilities and equipment will actually be available during execution of the project.

In part B please list all the available equipment and accessories which will be made use of in executing the project. Please note that this list is to cover equipment and accessories under these categories:

- a) Equipment within your research group
- b) Equipment in your Department
- c) Equipment in other Departments or Centres of your institution in the region including Regional Sophisticated Instrumentation Centres.

In case equipment required for the project exists at (a), (b) or (c) but cannot be used for project work, give reasons under the remarks column.

Section 430: Biodata of Investigators

Detailed Biodata of the Principal Investigator and all other investigators who are already in position and available for the project are to be given here. While providing the list of publications include: (a) names of Journal/publisher etc. The publication list should highlight the publications in the area of the project.

Section number should start with 430 for the PI and followed by 431, 432 etc. for other investigators.

Section 450: Other research projects with investigators

Summary details of the projects (completed/on-going or proposed) with different investigators may be given. These should also include DST projects as well as projects that are currently being processed/submitted with other agencies for funding. Each project should come on a separate sheet. Section numbering should start with 450 and could be continued upto 499.

Major results achieved should give

- a) brief review of the results achieved and scope for further research in the area;
- b) scientific and technological benefits emerging out;
- c) manpower trained;
- d) patent details, if any.

FORMATS FOR SUBMISSION OF PROJECTS
(To be filled by applicant)
(Sections 101 to 192 to be on separate sheet(s))

101. Project Title

102. Broad Subject: Atmospheric Sciences Chemical Sciences
 Earth Sciences Engineering Sciences
 Life Sciences Mathematical Sciences
 Physical Sciences Others Interdisciplinary

103. Sub Area: Please tick the relevant PAC area from the Annexure.

104. Duration in months

105. Total cost

106. FE Component

107. Project Category: Basic Research Applied Research (Process/Product Development)
 Technology Development Any other

111. Principal Inv.

112. Designation

113. Department

114. Institute Name

115. Address

116. Date of Birth Sex (M/F)

117. Telephone Fax Gram email

118. Co-Investigator

119. Designation

120. Department

121. Institute Name

122. Address

123. Date of Birth

124. Telephone Fax Gram email

125. Co-Investigator

126. Designation

127. Department

128. Institute Name

129. Address

130. Date of Birth Sex (M/F)

131. Telephone Fax Gram email

132. Co-Investigator

133. Designation

134. Department

135. Institute Name

136. Address

137. Date of Birth Sex (M/F)

138. Telephone Fax Gram email

Project Title:.....

Principal Investigator..... Institution i).....ii).....
iii).....

191. Project summary (maximum 150 words)

192. Key words (maximum 6)

200. Technical details

210. Introduction (under the following heads)

- 211. Origin of the proposal
- 212. Definition of the problem
- 213. Objective

220. Review of status of Research and Development in the subject

- 221. International status
- 222. National status
- 223. Importance of the proposed project in the context of current status
- 224. Review of expertise available with proposed investigating group/institution in the subject of the project.
- 225. Patent details (domestic and International)

230. Work plan

- 231. Methodology
- 232. Organization of work elements
- 233. Time schedule of activities giving milestones (also append to bar diagram and mark it as Section 410)
- 234. Suggested plan of action for utilization of research outcome expected from the project.

(300) BUDGET ESTIMATES: SUMMARY

(in Rupees)

	Item	BUDGET			Total
		1 st year	2 nd year	3 rd Year	
A.	Recurring				
	1. Salaries/wages				
	2. Consumables				
	3. Travel				
	4. Other costs				
B.	Equipment				
	Grand Total (A+B)				
	Total FEC*				

*FEC - Foreign Exchange Component

Foreign Exchange component in (US\$) equivalent of rupee amount at the prevailing rates may be furnished.

N.B. Entries here should match with those given in section 310 to 350; justification for each item is to be given in Section following it that is section 311, 321, 341 and 351.

310. BUDGET FOR SALARIES/WAGES

(in Rupees)

Designation & number of persons	Montly Emoluments	1 st Year (m.m.*)	2 nd Year (m.m.)	3 rd Year (m.m.)	Total (m.m.)
Total					

*m.m.: man months to be given within brackets before the budget amount.

311. Justification for the manpower requirement.

320. BUDGET FOR CONSUMABLE MATERIALS

(in Rupees)

Item		BUDGET			Total
		1 st Year	2 nd Year	3 rd Year	
	Q*				
	B**				
	F***				
Total	B				
	F				

*Q: Quantity or number, **B: Budget, **F: Foreign Exchange Component in US\$

321. Justification for costly consumable (if not provided for in Section 231 i.e. Methodology)

330. BUDGET FOR TRAVEL

(in Rupees)

		BUDGET			
		1 st Year	2 nd Year	3 rd Year	Total
	Travel (only inland travel)				

331. Justification for intensive travel, if any.

340. BUDGET FOR OTHER COSTS/CONTINGENCIES

(in Rupees)

		BUDGET			
		1 st Year	2 nd Year	3 rd Year	Total
	Other costs/Contingency costs				

341. Justification for specific costs under other costs, if any.

350. BUDGET FOR EQUIPMENT

Sr. No.	Generic name of the Equipment along with make & model	Imported/indigenous	Estimated Costs (in Foreign Currency also)*	Spare time for other users (in %)

*includes transport, insurance and installation charges.

351. Justification for the proposed equipment

410. Time Schedule of Activities through Bar Diagram

420. List of facilities being extended by the parent institution(s) for the project implementation.

A) Infrastructural Facilities:

Sr. No.	Infrastructural Facility	Yes/No/Not required Full or sharing basis
1.	Workshop facility	
2.	Water & Electricity	
3.	Laboratory Space/Furniture	
4.	Power Generator	
5.	AC Room or AC	
6.	Telecommunication including email & fax	
7.	Transportation	
8.	Administrative/Secretarial support	
9.	Information facilities like Internet/Library	
10.	Computational facilities	
11.	Animal/Glass House	
12.	Any other special facility being provided	

B. Equipment available with the Institute/Group/ Department/ Other Institutes for the project:

Equipment available with	Generic Name of Equipment	Model, Make & Year of purchase	Remarks including accessories available and current usage of equipment

PI & his group			
PI's Department			
Other Inst. In the region			

430. Detailed Bio-data of the Investigator(s)/Co-investigator(s)

including

Name, Address, Date of Birth, Institution's Address etc.

Academic Qualifications (University/College from where attained, year of passing, class, Thesis title

Publication list (Title of paper, authors, Journal details, pages, year etc.)

Patents list, if any

List of Projects implemented

450. Details of Research Projects being implemented/completed/submitted by the Investigator(s)/Co-Investigator(s)

including

Investigator(S) Name & Institute

Project Title

Project Status: completed - duration, period (from To....), funding agency and total cost
 on-going - duration, date of start, funding agency and total cost
 Proposed - duration, funding agency where submitted and total cost

Summary of the project

Major Results/Highlights of the projects including achievement (publications, patents etc.), for completed projects

Up-to date Technical progress report for on-going projects.

500. Any other relevant matter

List of Programme Advisory Committees (existing)
(Please enter one of these at Section 103; Sub Area)

Chemical Sciences (3 PACs)

- i) Inorganic Chemistry
- ii) Organic Chemistry
- iii) Physical Chemistry

Earth & Atmospheric Sciences (2 PACs)

- i) Atmospheric Science
- ii) Earth Sciences

Engineering Sciences (5 PACs)

- i) Chemical Engineering
- ii) Electrical, Electronics and Computer Engineering
- iii) Materials, Mining and Mineral Engineering
- iv) Mechanical Engineering and Civil Engineering
- v) Robotics and Manufacturing

Life Sciences (4 PACs)

- i) Animal Sciences
- ii) Biophysics, Biochemistry and Molecular Biology
- iii) Health Sciences
- iv) Plant Sciences

Mathematical Science (1 PAC)

Physical Sciences (3 PACs)

- i) Condensed Matter Physics and Materials Science
- ii) Lasers, Optics, Atomic and Molecular Physics
- iii) Plasma, High Energy, Nuclear Physics, Astronomy & Astrophysics and Nonlinear dynamics