PROGRAMME PROJECT REPORT (PPR)

PROGRAMME: BACHELOR OF COMPUTER APPLICATION (BCA)

A) **Programme's Mission & Objectives -**
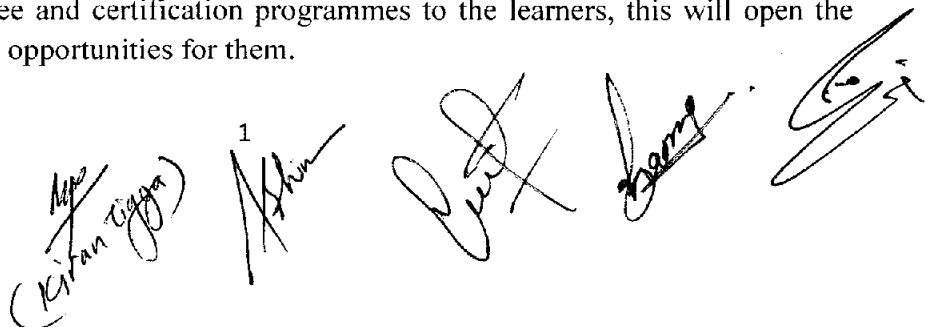
Mission -

Dr. C. V. Raman University's Institute of Open & Distance Education focuses on providing quality education through distance learning, matching with the parameter of regular programme and producing capable leaders in the field of information technology, who are prepared with the necessary skills to make high-quality applications and able to work with in multinational IT companies.

The mission of BCA programme is to provide increasing knowledge in the field of information technology and allied sectors. This programme is to distribute knowledge of computers and communication technology along with its applications across the learners, so learners can serve as IT technical's, computer professionals and software developers to provide quality services in multinational organizations with reliability in the field of information technology. The main goal of the programme is to update all kind of new information related to IT field and provide it to the open and distance learner so they can go and cope up with modern technologies in IT sector.

Objectives -

The objectives of programme related to the skill development of learners over the trends of information technology so they can secure their future and cope up with new technology. Following are the key objectives of this programme :

- To provide complete knowledge of computer and its application to the learners.
- To develop study skills among the learners so as to help them to cope with courses available in this programme.
- To develop opportunities to learner through provide proper training and lab programs so they can able to work everywhere with computer.
- To provide necessary practical exposure of self study methods so as equip learners with knowledge acquire abilities.
- To develop positive attitude into the learners and motivate them by exploring new ideas and knowledge and update their experience with new programs with the help of new domain of IT fields.
- To provide well acquired knowledge to the learners of tribal areas and their development in the fields of IT and trends.
- To meet the demands of multinational organization form the IT fields.
- To offer degree and certification programmes to the learners, this will open the furthest future opportunities for them.

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B)   Relevance of the Program with University's Mission -

Dr. C. V. Raman University aims to provide high standard of liberal education to its students, catering to their intellectual growth, personality development & nurtures them to be responsible adults committed to high ethical standards through various courses offered from different fields like commerce & management, science, arts, etc in regular mode as well as Open & Distance Learning mode.

BCA programme is very valuable and relevant for those learners who are not eligible to join BTech (CS/IT) for various reasons like not having science stream in 12th standard and wants to learn new courses with creativity. This programme helps learners to learn and develop their technical skill with quality and reliability to explore the world of knowledge through the use of information technology and trends. This programme helps the learner of ruler areas to connect with modern world by the learning objectives of use of computers and communication technology.

C)   Nature of Prospective Target Group of Learners -

This program is specifically designed to cater the needs of learner's that are not able to study through regular mode. Working Professional, Housewives, Students from rural area, Students who do not wish to prefer regular courses due to various reasons & Students who cannot afford costly regular courses are target group learners. The targeted learner's group of the program is urban, ruler and tribal area who passed their 12th exam from any stream and want to learn about computer technology and its uses in our daily life as well as in the industries. This programme targets those learners who want to develop their skills in the field of information technology and become IT professionals.

D)   Appropriateness of Programme to be conducted in Open and Distance Learning Mode to Acquire Specific Skills and Competence -

The aim of the programme is to provide and spread computer education to the learners of ruler and tribal area so they can enhance their knowledge towards computer education and information technology and their fields.
- Graduates will understand effective technical techniques related to computer's, including aspects of computer based application of communication and information technology.
- BCA provide practical approach with real time experience to the learners so they can be able to develop their skill in the various applications of computer and able to handles various operations in the field of IT.
- Graduates will demonstrate competency in the in the field of information technology.
- Graduates will demonstrate an understanding of the importance and relevance of diversity issues and use of informative based applications modern world of computation.
- From this programme every learner of ruler and tribal area is able to operate and use computers and peripheral devices frequently to become good IT professionals.
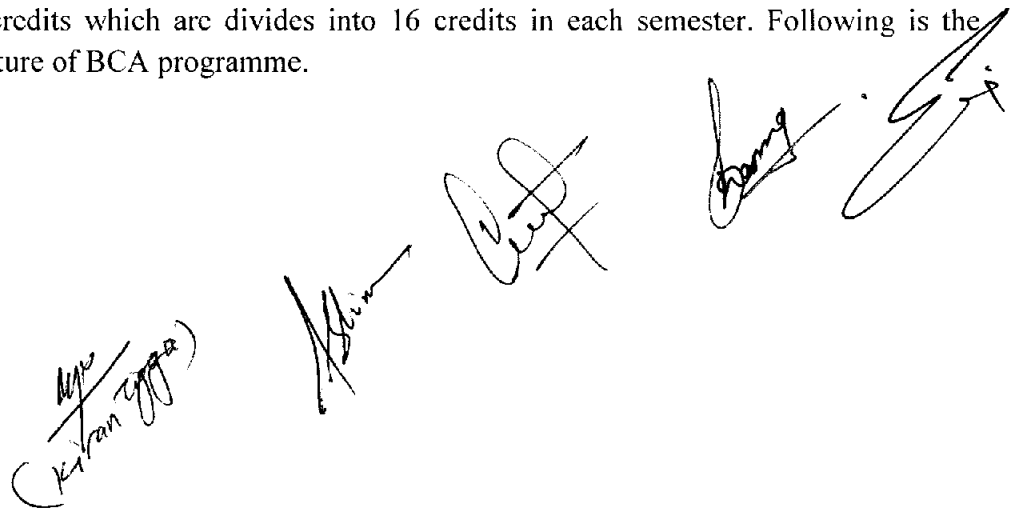- Graduates will communicate competently in a business environment.

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E) **Instructional Design -**

Curriculum Design, Program Structure & Duration of Program -

BCA programme offered in Institute of Open and Distance Education runs for the period of 36 months or three years and it comes under the faculty of information technology. This is an under graduate programme related to knowledge of computers and their applications in the field of information technology. This programme is for the learner who wants to learn computer languages and want to know about applications of computer system.

Credit Points -

All courses offered by us carry a certain value in terms of credit-points. A credit point is a way of expressing the learning hours required to study a certain unit, in a book or a course. Generally, one credit point is considered equivalent to about 30 learning hours. These learning hours could mean the time you spend in face to face counseling, self study, practical, assignment, project, participating in discussions on the topic, listening to audios, viewing especially prepared videos, etc. That means for 2 credit points student has to undertake 60 hours of learning per subject & for 3 credit points student has to undertake 90 hours of learning. BCA programme is three years program in which it has six semesters. It has total 96 credits which are divides into 16 credits in each semester. Following is the program structure of BCA programme.

Proposed Scheme of Examination

COURSE Code	NAME OF THE COURSE	CREDIT	TOTAL Marks	THEORY		PRACTICAL/PROJECT		ASSIGNMENT	
				Max	Min	Max	Min	Max	Min
Semester-I									
1BCA1	Fundamentals of Computers & information technology	3	100	70	23	-	-	30	10
1BCA2	Windows & MS Office	4	150	70	23	50	17	30	10
1BCA3	Programming in C	4	150	70	23	50	17	30	10
1BCA4	Discrete Mathematics	3	100	70	23	-	-	30	10
1BCA5	Communicative English	2	100	70	23	-	-	30	10
	Total aggregate required to pass	16	600	350	126	100	36	150	54
Semester-II									
2BCA1	Digital Computer Organization	3	100	70	23	-	-	30	10
2BCA2	Object Oriented Programming with C++	4	150	70	23	50	17	30	10
2BCA3	Operating Systems	4	100	70	23	-	-	30	10
2BCA4	Internet Programming (HTML, DHTML & JavaScript)	3	150	70	23	50	17	30	10
2BCA5	Environmental Study	2	100	70	23	-	-	30	10
	Total aggregate required to pass	16	600	350	126	100	36	150	54
Semester-III									
3BCA1	Data Base Management System	4	100	70	23	-	-	30	10
3BCA2	Data Structure with C++	4	100	70	23	-	-	30	10
3BCA3	Computer Communication & Network	3	150	70	23	50	17	30	10
3BCA4	Programming with JAVA	3	150	70	23	50	17	30	10
3BCA5	Principal of Management	2	100	70	23	-	-	30	10
	Total aggregate required to pass	16	600	350	126	100	36	150	54
Semester-IV									
4BCA1	Linux operating System, Operation & Management	3	150	70	23	50	17	30	10
4BCA2	Software Engineering	3	100	70	23	-	-	30	10
4BCA3	Microprocessor and Assembly Language Programming	3	100	70	23	-	-	30	10
4BCA4	RDBMS Practice with Oracle / MS SQL server express server edition	3	100	70	23	-	-	30	10
4BCA5	Programming with Visual Basic .Net	4	150	70	23	50	17	30	10
	Total aggregate required to pass	16	600	350	126	100	36	150	54
Semester-V									
5BCA1	Computer Graphics	4	150	70	23	50	17	30	10
5BCA2	Software Testing & Project Management	4	100	70	23	-	-	30	10
5BCA3	Multimedia Systems	3	150	70	23	50	17	30	10
5BCA4	Management information system	2	100	70	23	-	-	30	10
5BCA5	Data Warehousing & Mining	3	100	70	23	-	-	30	10

Total aggregate required to pass	16	600	350	126	100	36	150	54

Semester-VI								
6BCA1	Web Development Through Open Source Technologies (PHP, MySql)	3	150	70	23	50	17	30	10
6BCA2	Information Technology Trends	3	100	70	23	-	-	30	10
6BCA3	Project***	10	400	-	-	400	132	-	-
Total aggregate required to pass		16	650	140	50	450	162	60	22

Evaluation Scheme –

1. 33% in each theory, practical, project, dissertation & internal assessment but the total aggregate for passing is 36%.
2. Total project work carrying 400 marks has to be done under the guidance of a Project supervisor. Learners have to prepare project report under the guidance of project guide allotted by the university. Viva-voce will be conducted in the presence of an external examiner.

Duration -

This programme has duration of three year although student may complete the programme gradually within a maximum period of 7 year.

Medium -

English/Hindi shall be the medium of instruction and the examination may be written in Hindi or English.

Requirement of Faculty and Support Staff -

For BCA programme we have two faculty members (full time-dedicated for ODL courses) has the level of Associate and Assistant Professor. Supporting staffs will be deputed at the learner support centre as per need of the course curriculum.

Instructional Delivery Mechanism & Usage of Media for Distance Learning -

The methodology of instruction in the distance learning mode in the university is different from that of the conventional regular programs. The system adopted for this more learner oriented and the learner is an active participant in the pedagogical process. Most of the instructions are imparted through distance education methodology and face to face mode as per requirement.

The programme delivery methodology used in the distance learning mode follows a multimedia approach for instructions, which compromises:

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- **Self Instructional Written Material:** The printed study material (written in self instructional style) for both theory and practical components of the programs is supplied to the learners in batches for every course.

- **Audio-Visual Material Aids:** The learning package contains audio and video CDs which have been produced/adopted by the University for Better Clarification and enhancement for understanding of the course material given to the learners. A video programme is normally of 25-30 minutes duration. The video cassettes are screened at the leaner support centre during specific sessions which are duly notified for the benefit of the learners.

- **Counseling Sessions:** Normally counseling sessions are held as per schedule drawn by the IODE DR. C. V. RAMAN UNIVERSITY. These are mostly held outside the regular working hours of the learner support centre.

- **Teleconferences:** Live teleconferencing sessions are conducted via Internet/ satellite through interactive Video Conferencing facility (available at some places) from the University studios, the schedule of which is made available at the learner support centre.

- **Industrial Training/Practical/Project work:** Some programmes have industrial training/practical/ project component also. Practical are held at designated institutions for which schedule is provided by the learner support centre. Attendance at practical is compulsory. For Project Work, comprehensive project guide, in the form of booklet, is provided to the student along with the study material.

- The printed study materials will be dispatched periodically to the enrolled students for each paper of study. These materials will be as guide for the students for effective learning. The assignment for internal assessment shall also be dispatched along with the study material. Online modules are also available for some courses. These are in progress and as and when available, these will be available on the website of the students for registered candidates.

- The counseling sessions will be of 30 days duration for a course in a year. The actual schedule and place of contact program shall be announced and communicated to students in – time.
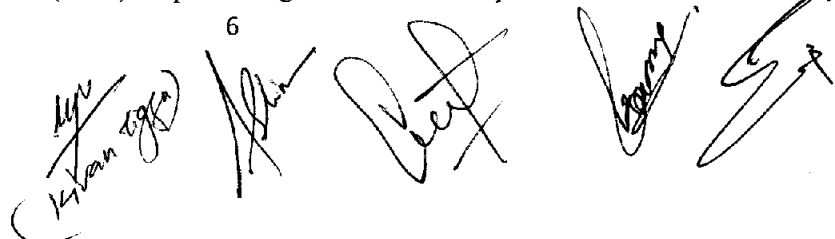
Nature of Contact Classes -

During the contact sessions, the counselors are supposed to guide/discuss with the learner's, based on the course material. The learner's can solve their difficulties by discussing with their colleagues as well as with the counselor during contact sessions. Apart from this contact sessions, learners will have to attend practical as well as various training schedule conducted by the respective learner support centre.

Learner Support Services -

Dr. C. V. Raman University Institute of Open And Distance Education has a fully fledged Learner Support Division (LSD) to provide guidance and help to its students. Necessary

information is passed on to the registered student through modern means of communication as SMS, website and e-mail. For the convenience of learner, computer, photocopy machine, internet, WIFI facilities have also been provided. The learner support division has a web centre and SMS No. 56161 where learner can message their problems and seek answer. Bulk SMS are sent to learners regarding their registration detail, dispatch of study, material time table for contact class, submission of examination forms, examination schedule etc. from time to time. Important information and necessary material are also sent through e-mail and through regular post. University's website www.cvru.ac.in also provides information about the various programmes being offered by the institute of open and distance education, the syllabus, assignment, programme guide.

Counseling & Study Structure -

Entire BCA course has been divided into counseling & study structure in terms of hour. Total study hours required for subject of 2 credits are 60 hours & for subject of 3 credits are 90 hours per semester. Study structure of BCA programme is as below:
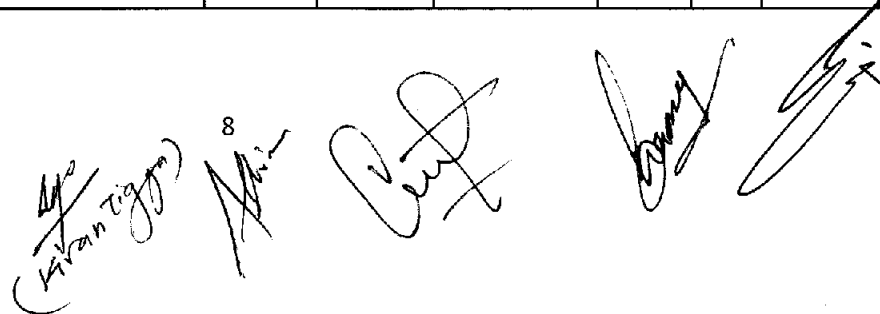
STUDY STRUCTURE

Sl. No.	Course Code	Title of the Course	Credit	Total Hours of Study	Counseling and Study Structure (hours)			
					Face to Face Counseling	Self study	Practical	Assignments
First Semester								
1	1BCA1	Fundamentals of Computers & Information Technology	3	90	12	51	-	27
2	1BCA2	Windows & MS Office	4	120	16	44	24	36
3	1BCA3	Programming in C	4	120	16	44	24	36
4	1BCA4	Discrete Mathematics	3	90	12	51		27
5	1BCA5	Communicative English	2	60	8	34	-	18
Second Semester								
7	2BCA1	Digital Computer Organization	3	90	12	51		27
8	2BCA2	Object Oriented Programming with C++	4	120	16	44	24	36
9	2BCA3	Operating Systems	4	120	16	68		36
10	2BCA4	Internet Programming (HTML, DHTML & JavaScript)	3	90	12	33	18	27
11	2BCA5	Environmental Study	2	60	8	34	-	18

Third Semester
12	3BCA1	Data Base Management System	4	120	16	68		36
13	3BCA2	Data Structure with C++	4	120	16	68		36
14	3BCA3	Computer Communication & Networks	3	90	12	33	18	27
15	3BCA4	Programming with JAVA	3	90	12	33	18	27
16	3BCA5	Principal of Management	2	60	8	34	-	18
Fourth Semester
17	4BCA1	Linux Operating System Operations & Management	3	90	12	33	18	27
18	4BCA2	Software Engineering	3	90	12	51		27
19	4BCA3	MICROPROCESSOR AND ASSEMBLY LANGUAGE PROGRAMMING	3	90	12	51		27
20	4BCA4	RDBMS Practice with Oracle / MS SQL Server Express Edition	3	90	12	51		27
21	4BCA5	Programming with Visual Basic .NET	4	120	16	44	24	36
Fifth Semester
22	5BCA1	Computer Graphics	4	120	16	44	24	36
23	5BCA2	Software testing & Project Management	4	120	16	68		36
24	5BCA3	Multimedia Systems	3	90	12	33	18	27
25	5BCA4	Management Information System	2	60	8	34	-	18
26	5BCA5	Data Warehousing & Mining	3	90	12	51		27
Sixth Semester
27	6BCA1	Web Development through Open Source Technologies (PHP, MySql)	3	90	12	33	18	27
28	6BCA2	Information Technology Trends	3	90	12	51		27

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| 29 | 6BCA3 | Project | | 10 | 300 | - | | - | - | - |

F) Procedure for Admissions, Curriculum Transaction & Evaluation -

Admission Policy for BCA with minimum eligibility & fee structure -

Admission to BCA programme shall be through merit and/or, entrance test as per rules of the university. The minimum eligibility for admission into this programme for the candidates is having passed higher secondary (10+2) examination in any stream from Chhattisgarh board of secondary education, Chhattisgarh or any equivalent examination of a board or university recognized by university and Chhattisgarh board of secondary education may be admitted. All the procedure of admission for the programme will be done through online mode. Application will be invited by the university with it stipulated time period where students have to apply for the same with all their testimonials and required fees.

Fees Structure -

SI.	Course	Duration	Fee Charged for Complete Programme
1.	BCA	3 Years	40500

Financial Assistance -

The University also offers e-scholarship to SC/ST students as per norms of the Govt. of Chhattisgarh authorized schemes.

Evaluation System -

The system of evaluation in open and distance learning system has a multi-tier system of evaluation.

1. Self-assessment exercise within each unit of study.
2. Continuous evaluation mainly through assignments which are tutor-marked practical assignments and seminar/workshop/extended.
3. The term-end examinations.
4. Project work.

The evaluation of learners depends upon various instructional activities undertaken by them. A learner has to write assignment responses compulsorily before taking term-end examination from time to time to complete an academic programme. A learner has to submit TMA responses to the learner support centre established by IODE Dr. C. V.

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Raman University. A learner should keep duplicate copies of assignments responses of TMA that may be required to be produced at Student Evaluation Division on demand. Term-end examination will be conducted at various examination centre approved by institute of open and distance education Dr. C. V. Raman university spread all over the Chhattisgarh. The weight age for Term End Examination will be 70% and weight age for Internal Assessment will be 30 % for this programme.

(A) Internal Assessment (Continuous Assessment i.e. Home Assignment): 30% weightage.

(B) Term End Examination - 70% weightage.

Term End Examination	70
Internal Assessment	30
Total Marks	100

The University conducts Term-end Examination in semester system and held in the month of Nov/Dec and May/June every year. Students will be permitted to appear in term-end examination subject to the conditions that:

1) Registration for the courses, in which they appeared is valid,
2) Minimum Time to pursue these courses is elapsed.
3) Submission of required number of assignment in respective courses by the due date.

(C) Project Work -

Project work carrying 400 marks has to be done under the guidance of a Project supervisor. Learners have to prepare project report under the guidance of project guide allotted by the university. Viva-voce will be conducted in the presence of an external examiner.
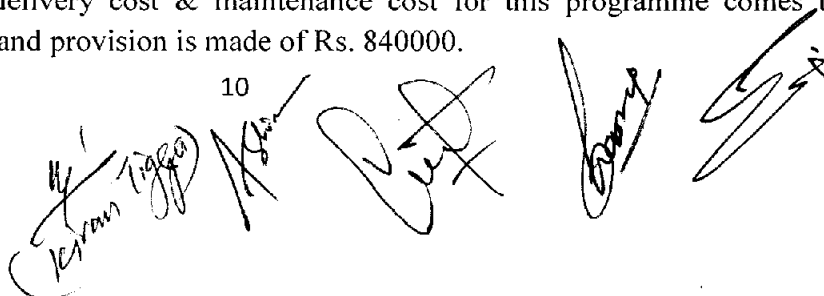
(G) Requirement of the Laboratory Support and Library Resource -

Laboratory is required as a part of this curriculum with well equipped computer systems with high speed of connectivity to provide practical approach to the learner's with the help of new applications and technological trends of IT. Resources in the form of reference books and journal will be made available to the learners in the university central library as well as in departmental reference library, which they can access for gaining knowledge.

(H) Cost Estimates of the Programme and the Provision -

This programme was already designed and developed in the year 2009-10. In this process of development considering today's scenario, the current cost estimate which includes developmental cost, delivery cost & maintenance cost for this programme comes to amount of Rs.835550 and provision is made of Rs. 840000.

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(I)   Quality Assurance Mechanism and Expected Programme Outcomes -

The centre for internal quality assurance and department of information technology of university is accountable for regular monitoring of programme by continuous updating of the curriculum and syllabus. The feedback all stakeholders in term of relevance and appropriateness in catering to the need of society, economy and environment are also considered in these key aspects. According to the feedback provided stakeholders including learners on continuous basis, a suitable action plan for BCA programme will be developed and duly incorporated into the teaching and delivery system.

Outcomes -

"At the end of the programme expected outcomes"

- To acquired a general knowledge, principles and mechanisms of Computer.
- To prepare the learners for employability.
- To acquired a basic knowledge of Subjects.
- To acquire techniques relevant of subjects taught.
- To provide the practical expose and knowledge acquiring skill.
- To crate and develop the presentation skill in seminar/conference.
- To develop skill to E-library software and internet resources independently.

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