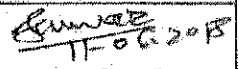
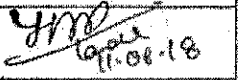
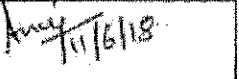

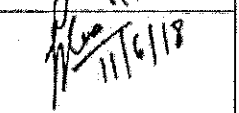


प्रपत्र

विषय/संकाय/प्रश्न-पत्र का नाम— **B.Sc. Computer Science**

क्रमांक	कक्षा का नाम	वर्तमान पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम	नवीन संशोधित पाठ्यक्रम का औचित्य
1.	1 <sup>st</sup> Year	COMPUTER HARDWARE	COMPUTER FUNDAMENTAL	Updation Required
2.	1 <sup>st</sup> Year	COMPUTER SOFTWARE	PROGRAMMING IN 'C' LANGUAGE	Updation Required
3.	1 <sup>st</sup> Year	PRACTICAL	PRACTICAL	Updation Required
4.	2 <sup>nd</sup> Year	COMPUTER HARDWARE	COMPUTER HARDWARE	No Change
5.	2 <sup>nd</sup> Year	COMPUTER SOFTWARE	COMPUTER SOFTWARE	No Change
6.	2 <sup>nd</sup> Year	PRACTICAL	PRACTICAL	No Change
7.	3 <sup>rd</sup> Year	COMPUTER HARDWARE	COMPUTER HARDWARE	No Change
8.	3 <sup>rd</sup> Year	COMPUTER SOFTWARE	COMPUTER SOFTWARE	No Change
9.	3 <sup>rd</sup> Year	PRACTICAL	PRACTICAL	No Change

केन्द्रीय अध्ययन मंडल के अध्यक्ष एवं सदस्यों का हस्ताक्षर

S.N.	Name	Designation/University/College	Signature with Date
1.	Dr. Sanjay Kumar	Head, S.o.S. in Computer Science & I.T., Pt. R.S. University, Raipur	 11-06-2018
2.	Mr. Hari Shankar Prasad Tonde	Head, Dept. of Computer Science, Sarguja University, Ambikapur	 11-06-18
3.	Dr. Anuj Kumar Dwivedi	Head, Dept. of Computer Science, Govt. V.B.S.D. Girls College, Jashpur Nagar, Jashpur	 11/6/18
4.	Mr. L.K. Gavel	Head, Dept. of Computer Science, Govt. G.S.G. P.G. College Balod	 11/06/18
5.	Dr. J. Durga Prasad Rao	Head, Dept. of Computer Science, Shri Sankracharya Mahavidyalaya, Bhilai	 11/6/18

B.Sc. (C.S.)  
I Year

**B.Sc. PART - I  
COMPUTER SCIENCE  
PAPER - I  
COMPUTER FUNDAMENTAL  
(PAPER CODE - 0805)**

Max Marks: 50

**NOTE:** The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

**UNIT - I Classification and Organization of Computers**

History of computer, Generation of computer, Calculator vs. Computer, Digital and Analog computers and its evolution, Major components of digital computers; Memory addressing capability of CPU, Word length and processing speed of computers, Microprocessors, Single chip Microcomputer, Large and small computers, Users interface, Hardware, software and firmware, multi programming multi user system, Dumb smart and intelligent terminals, computer network and multi-processing, LAN parallel processing, Flynn's classification of computers, Control flow and data flow computers

**UNIT - II Central Processing Unit**

Parts of CPU- ALU, Control Unit, Registers; Architecture of Intel 8085 microprocessor, Instructions for Intel 8085 microprocessor, Instruction Word size, Various addressing mode, Interrupts, Some special Control signals, Instruction cycle, fetch and execute operation, Timing Diagram, Instruction flow and data flow.

**UNIT - III Memory**

Memory hierarchy, Primary and Secondary Memory, Cache memory, Virtual Memory, Direct Access Storage Devices (DASD), Destructive and Nondestructive Readout, Program and data Memory, Memory Management Unit (MMU), PCMCIA Cards and Slots.

**UNIT - IV I/O Devices**

I/O devices- Keyboard, Mouse, Monitor, Impact and Non-Impact Printers, Plotter, Scanner, other Input/output devices: Scan method of Display- Raster Scan, Vector Scan, Bit Mapped Scan, CRT Controller, I/O Port- Programmable and Non Programmable I/O ports, Inbuilt I/O ports- Parallel and Serial ports, USB, IEEE 1394, AGP, Serial data transfer scheme, Micro controller, Signal Processor, I/O processor, Arithmetic Processor.

**UNIT - V SOFTWARE AND PROGRAMMING TECHNIQUES**

Application and System Software: Introduction, Example, Differences etc., Introduction to Open Source Software such as Unix/Linux (Ubuntu), Libre office etc., Introduction to Machine Language, Assembly Language and High Level Language, Programming Techniques, Stack, Subroutine, Debugging of programs, Macro, Program Design, Software development, Flow Chart, Multi programming, Multiuser, Multitasking Protection, Operating system and Utility programs, Application packages.

**TEXT BOOKS:**

1. Computer Fundamentals, P. K. Sinha, BPB Publications, Sixth Edition.
2. Computer Fundamentals Architecture and Organization, B. Rata, New Age International Publishers, Fifth Edition.
3. Fundamentals of Computers, V. Rajaraman, PHI, Sixth Edition.
4. Computers Today, Donald H. Sanders, McGraw-Hill, Third Edition.
5. IBM PC and Clones, B Govindarajulu, McGraw-Hill, Second Edition.
6. UNIX Concepts and Applications, Sumitabha Das, Tata McGraw-Hill, Fourth Edition.

*Ramesh*  
11-06-2018  
(Dr. Brijay Kumar)

*Ch. K. Gavel*  
11/06/18  
(Ch. K. Gavel)

*Hari Shankar Prasad Tande*  
11.06.18  
Hari Shankar Prasad Tande

*Dr. A. K. Desai*  
11/6/18  
(Dr. A. K. Desai)

*Dr. D. D. D. D.*  
11/6/18  
(Dr. D. D. D. D.)

**B.Sc. PART - I**  
**COMPUTER SCIENCE**  
**PAPER II**  
**PROGRAMMING IN 'C' LANGUAGE**  
(Paper Code - 0806)

Max Marks: 50

**NOTE:** The Question Paper setter is advised to prepare unit-wise question with the provision of internal choice.

**UNIT-I**

**Fundamentals of C Programming:** Overview of C: History of 'C', Structure of 'C' program. Keywords, Tokens, Data types, Constants, Literals and Variables, Operators and Expressions: Arithmetic operators, Relational operator, Logical operators, Expressions, Operator precedence and associativity, Type casting, Console I/O formatting, Unformatted I/O functions: getch(), getchar, getche(), gets(), puts(), putchar().

**UNIT- II**

**Control Constructs:** If-else, conditional operators, switch and break, nested conditional branching statements, loops: do while, while, for, Nested loops, break and continue, goto and label, exit function.  
**Functions:** Definition, function components: Function arguments, return value, function call statement, function prototype, Types of function, Scope and lifetime of variable, Call by value and call by reference. Function using arrays, function with command line argument. User defined function: maths and character functions, Recursive function.

**UNIT-III**

**Array:** Array declaration, One and Two dimensional numeric and character arrays, Multidimensional arrays.  
**String:** String declaration, initialization, string manipulation with/without using library function.  
**Structure, Union and Enum - Structure:** Basics, declaring structure and structure variable, typedef statement, array of structure, array within structure, Nested structure; passing structure to function, function returning structure. **Union:** basics, declaring union and union variable, **Enum:** declaring enum and enum variable.

**UNIT- IV**

**Pointer:** Definition of pointer, Pointer declaration, Using & and \* operators. Void pointer, Pointer to pointer, Pointer in math expression, Pointer arithmetic, Pointer comparison, Dynamic memory allocation functions - malloc, calloc, realloc and free, Pointer vs. Array, Array of pointer, Pointer to array, Pointers to function, Function returning pointer, Passing function as Argument to function, Pointer to structure, Dynamic array of structure through pointer to structure.

**UNIT-V**

**File Handling and Miscellaneous Features:** File handling: file pointer, File accessing functions. fopen, fclose, fputc, fgets, fprintf, fscanf, fread, fwrite, fflush, rewind, fseek, ferror. File handling through command line argument, Introduction to C preprocessor #include, #define, Conditional compilation directives: #if, #else, #elif, #endif, #ifndef etc.

**TEXT BOOKS:**

1. Programming in ANSI C, E Balagurusamy, Tata McGraw-Hill, Third Edition.
2. Let Us C, Yashwanikanetkar, Infinity Science Press, Eighth Edition.
3. Mastering C, K R Venugopal, Tata McGraw-Hill.
4. The C Programming Language, Brian W. Kernighan, Dennis M. Ritchie, Prentice Hall, Second Edition.
5. Applications Programming in ANSI C, R. Johnsonbaugh, Martin Kalin, Macmillan, Second Edition.
6. The Spirit of C, Mullish Cooper, Jaico publishing House.
7. How to solve it by Computer, R.G. Dromey, Pearson Education.

*Sumer*  
11-06-2018  
(Dr. Sujay Kumar)

*Dr. Gavel*  
11/06/18  
(Dr. K. Gavel)

*JMP*  
11-06-18  
Hemishankar Prasad Tandi

*Anuj*  
11/6/18  
(Dr. A.K. Drivedi)  
*J.D.*  
11/6/18  
(Dr. J. D. J. D. J. D.)

## Practical

- At least 20 Practical based on Syllabus of Paper-I and Paper-II.

Ramesh  
11-06-2018  
(Dr. Sanyal Kumar)

Anuj  
11/6/2018  
(Dr. A.K. Dainodi)

Paul  
11/6/18  
(L.R. Gavel)

Pr  
11/6/18  
(Dr. J. D. Singh / Prasad Rao)

Yash  
11-06-18  
Hari Shankar Prasad Tandel