Fundamental of Computing

Dept:-Computer Department

Course Code:-VAC2005   Duration:-15 Days

Permission letter

Permission is granted to conduct 15 days value added course on "Fundamental of computing" in the Computer Department of Chandrakanti Ramawati Devi Arya Mahila P.G. College , Gorakhpur from   18-08-2020 to30-08-2020.

प्राचार्या
न्द्रकान्ति रमावती देवी आर्य महिला
पी० जी० कालेज, गोरखपुर

Principal

CHANDRAKANTI RAMAWATI DEVI ARYA MAHILA P.G. COLLEGE
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To

The Principal

Chandrakanti Ramawati Devi Arya Mahila P.G.College

Diwan Bazar , Gorakhpur

 Sub- In Reference To The Approval Of value added course On " Fundamental of computing" .

Respected Mam ,

It Is Requested that the Department Of computer Wants To Counduct On 15 days (30 Hrs) Subject Of Fundamental of computing from 18-08-2020 to30-08-2020 Therefore,You are requested to approve course.

Thank You

Mrs.Anjali Shukla
Incharge Department Of computer
C.R.D.A.M.P.G.College Gorakhpur

Syllabus and programe schedule

Name of the programe:-Value Added Course on Fundamental Of Computing .

Duration of programe—30 hours

Introduction

The Value Added Course On Fundamemntal Of Computing Will Be For 30 Hours And Conducted Through Ofline Mode.

It Aims To Provide Proper Environment To Th Students With Regards To Fundamental Of Computing ..

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Syllabus

Unit-I

Human Computer Interface Concepts of Hardware and Software; Data and Information.

Functional Units of Computer System: CPU, registers, system bus, main memory unit, cache memory, Inside a computer, SMPS, Motherboard, Ports and Interfaces, expansion cards, ribbon cables, memory chips, processors.

Devices: Input and output devices (with connections and practical demo), keyboard, mouse, joystick, scanner, OCR, OMR, bar code reader, web camera, monitor, printer, plotter.

Memory: Primary, secondary, auxiliary memory, RAM, ROM, cache memory, hard disks, optical disks.

Data Representation: Bit, Byte, Binary, Decimal, Hexadecimal, and Octal Systems, Conversions and Binary Arithmetic (Addition/ Subtraction/ Multiplication) Applications of IT.

Unit-II

Concept of Computing, Types of Languages: Machine, assembly and High level Language; Operating system as user interface, utility programs. Word processing: Editing features, formatting features, saving, printing, 10 BCA 1 –IT www.sbs.ac.in 3 | Page table handling, page settings, spell-checking, macros, mail-merge, equation editors.

Unit-III

Spreadsheet: Workbook, worksheets, data types, operators, cell formats, freeze panes, editing features, formatting features, creating formulas, using.

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Course Outcome

Paper: Introduction to Computer Programming

Introduction:
CO.1 To know about Digital Computer, Major Components of digital computer, Hardware, Software, Software & Firmware, Computer Application in various fields of science and managements. Data Representation:

CO.2 To learn Decimal and binary number system, Decimal-binary conversion, Octal number system, Hexadecimal, BCD number, Binary arithmetic, Alphanumeric representation, Complements, r and (r1)'s complements, Fixed point and floating point representation.

CO.3 To create algorithm, flowchart, data flow diagram.
CO.4 To solve the concept of programming related to real life problems in 'C'operations.

Paper: Digital Circuits & Logic:

CO.1 To learn about Logic gates, Boolean algebra, Combinational Circuits: Half adder, Full adder, Flipflops – RS flip-flop, D- flip-flop, JK, T flip flop, Edge- triggered flip flop, Encoders, Decoders, multiplexers, Registers – shift register, buffer register counters.

CO.2 To solve the basic problems of Karnaugh Maps.
CO.3 To learn about Instruction code, direct & indirect addresses, Timing and control signals, Instruction cycle, memory reference Instruction, I/OInstructions.
CO.4 Tosolve the problems based on addition and subtraction with signed magnitude data, multiplication algorithms & Booth algorithm, hardware algorithm.
CO.5 To implement the concept of Time window and slope converters, Tracking A/D and successive approximation converters, Digital to analogconverters, LED and LCD display, seven segment display.

Paper: Operating System

CO.1 the students learn the concept of paging, segmentation, demands paged allocation. Processor Management: State models, Job schedulers, Process scheduling, Job and process synchronization, Race condition, deadlocks, Deadlock detection, recovery & prevention.

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Programme Outcome

PO1: Apply knowledge of mathematics, science and algorithm in solvingcomplex Computer engineering problems.

 PO2: Generate solutions by conducting experiments and applyingtechniques to analyze and interpret data

PO3: Design component, or processes to meet the needs within realisticconstraints.

PO4: Identify, formulate, and solve Software Engineering, Networking. PO5: Comprehend professional and ethical responsibility in computing profession.

PO6: Express effective communication skills.

PO7: Participate in global, economic, environmental, and societal context.PO8: Recognize the need for, and an ability to engage in life-long learning.PO9: Knowledge of contemporary issues and emerging developments in computing profession.

PO10: Function effectively as an individual and as a member or leader indiverse teams and in multidisciplinary settings.

PO11: Design research problems and conduct research in computingenvironment.

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Teachers who attended meeting

- Dr.Aparna Mishra
- Mrs.Anjali Shukla
- Mr.Shankar Thapa

Place- Computer Lab

Date- 18-08-2020 To 30-08-2020

Minutes of Meeting

The development meeting was held on 10-08-2020 following matters were discussed in the meeting.

1-It was decided that the department will be conducting Fundamental Of Computing .

2-It was decided that the value added course would be for & 15 days (30 hours)