

प्राचीन काव्य - द्वितीय प्रश्नपत्र

विद्यापति पदावली - सं. रामवृक्ष बेनीपुरी →
प्रारम्भिक 20 पद

अक्टूबर 2021 → व्यक्तित्व - कृतित्व, भाक्तिभावना, शृंगार वर्णन,
प्रकृति चित्रण, सौंदर्य चित्रण, गीत पद्धति, काव्यकला
अंशकार योजना, भाषा, संस्कृत साहित्य प्रभाव

नवम्बर 2021 → विद्यापति के पदों की व्याख्या

दिसम्बर 2021 → हुतपठि → अमीर खुसरौ, रसखान, मीरगार्ह,
इंदार, रहीम

जनवरी 2022 → आलोचनात्मक, बहुउत्तरीय, अतिबहुत्तरीय
प्रश्न / पुन्य प्रति

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जशुवाल

(म. ए. द्वितीय सेमेस्टर - हिंदी)

Genius
Page
Date

मध्यकालीन काव्य - प्रश्नोत्तर - द्वितीय

तुलसीदास :- व्यक्तिव एवं कृतिव,
फरवरी - मार्च भावने भावना, महाकाव्यव, लोक-
जीवन एवं संस्कृति, काव्यकला,
लोकनायकव, दार्शनिकता,
गीतितत्व, भाषाशैली, अंश अंश
योजना।

अप्रैल - तुलसीदास → रामचरितमानस का सुंदर छंद
पूर्व → व्याख्या

मई द्रुतपाठ → वनानंद, केशवदास, देव, मृषण
और पद्मकर

आलोचनात्मक, वस्तुनिष्ठ एवं बहुउत्तरीय
प्रश्न।

X

राशुका

भारतीय साहित्य - प्रश्नका

अक्टूबर / नवम्बर 2021 / भारतीय साहित्य का स्वल्प, भारतीय साहित्य के अध्ययन की समस्याएँ, भारतीय साहित्य में आज के भारत का चित्र।

दिसम्बर 2021 → भारतीयता का समाजशास्त्र) हिंदी साहित्य में भारतीय मूल्यों की अभिव्यक्ति

जनवरी 2022 → पाठ्यपुस्तक ले लेनाद्यित आलोचनात्मक प्रश्न एवं वस्तुनिष्ठ प्रश्न | पुनरावृत्ति

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Shyam

एम. ए. - पत्रिका लेभर - हिंदी

Page _____
Date _____

लोकसाहित्य एवं छत्तीसगढ़ी साहित्य - प्रश्न IV

प्रश्न 1) छत्तीसगढ़ी साहित्य का इतिहास, प्रवृत्तियाँ,
मार्च → छत्तीसगढ़ी गद्य साहित्य का उद्भव और विकास,
विधाएँ → उपन्यास, नाटक, एकांकी, निबंध,
कहानी, महाकाव्य।

अर्थ:- दानकीला → सुंदरलाल शर्मा

मई → लक्ष्मणवारीय एवं आनिलकुट्टासीय
वस्तुनिष्ठ प्रश्न।

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लीला

डॉ. प्रमोदी शुक्ल
प्रधानाचार्य, दिल्ली

31-11-21 2021
Page Number
General

दिनांक 2021

डॉ. प्रमोदी शुक्ल
प्रधानाचार्य, दिल्ली
दस्तावेज संख्या - 2021-22

| दिनांक | विषय | दिनांक | विषय |
|----------|------------------|----------|------------------|
| 14.11.21 | विश्व शांति दिवस | 14.11.21 | विश्व शांति दिवस |
| 15.11.21 | कक्षा परीक्षा | 15.11.21 | कक्षा परीक्षा |
| 16.11.21 | कक्षा परीक्षा | 16.11.21 | कक्षा परीक्षा |
| 17.11.21 | कक्षा परीक्षा | 17.11.21 | कक्षा परीक्षा |
| 18.11.21 | कक्षा परीक्षा | 18.11.21 | कक्षा परीक्षा |
| 19.11.21 | कक्षा परीक्षा | 19.11.21 | कक्षा परीक्षा |
| 20.11.21 | कक्षा परीक्षा | 20.11.21 | कक्षा परीक्षा |
| 21.11.21 | कक्षा परीक्षा | 21.11.21 | कक्षा परीक्षा |
| 22.11.21 | कक्षा परीक्षा | 22.11.21 | कक्षा परीक्षा |
| 23.11.21 | कक्षा परीक्षा | 23.11.21 | कक्षा परीक्षा |
| 24.11.21 | कक्षा परीक्षा | 24.11.21 | कक्षा परीक्षा |
| 25.11.21 | कक्षा परीक्षा | 25.11.21 | कक्षा परीक्षा |
| 26.11.21 | कक्षा परीक्षा | 26.11.21 | कक्षा परीक्षा |
| 27.11.21 | कक्षा परीक्षा | 27.11.21 | कक्षा परीक्षा |
| 28.11.21 | कक्षा परीक्षा | 28.11.21 | कक्षा परीक्षा |
| 29.11.21 | कक्षा परीक्षा | 29.11.21 | कक्षा परीक्षा |
| 30.11.21 | कक्षा परीक्षा | 30.11.21 | कक्षा परीक्षा |
| 31.11.21 | कक्षा परीक्षा | 31.11.21 | कक्षा परीक्षा |

प्रधानाचार्य

Principal
Bilaspur (C.G.)

प्रधानाचार्य

Principal
Bilaspur (C.G.)

अक्टूबर 2021

Dr. Anshu Kumar
Principal
Govt. College
Bilaspur (C.G.)

नवंबर 2021

Dr. Anshu Kumar
Principal
Govt. College
Bilaspur (C.G.)

| दिनांक | प्र. 0. प्रथम श्रेणी | प्र. 0. दूसीय श्रेणी | वी. ए. अर्धिन सहित सोम से शनि | दिनांक | प्र. 0. प्रथम श्रेणी | प्र. 0. दूसीय श्रेणी | वी. ए. अर्धिन सहित सोम से शनि | दिनांक |
|----------|-----------------------|----------------------|-------------------------------------|----------|-----------------------|-----------------------|-------------------------------------|--------|
| 19.10.21 | प्राचीन काल | / | प्रथम श्रेणी | 28.11.21 | प्रथम श्रेणी | दूसरी श्रेणी | वी. ए. अर्धिन सहित | 28 |
| 18.10.21 | विशेषज्ञता | / | दूसरी श्रेणी | 29.11.21 | विद्यार्थी - व्याख्या | विद्यार्थी - व्याख्या | वी. ए. अर्धिन सहित | 29 |
| 20.10.21 | विद्यार्थी कार्यक्रम | / | दूसरी श्रेणी | 30.11.21 | विद्यार्थी - व्याख्या | विद्यार्थी - व्याख्या | वी. ए. अर्धिन सहित | 30 |
| 31.10.21 | कटिबंध | / | दूसरी श्रेणी | 27.11.21 | विद्यार्थी - व्याख्या | विद्यार्थी - व्याख्या | वी. ए. अर्धिन सहित | 27 |
| 33.10.21 | विद्यार्थी कार्य मंडल | / | दूसरी श्रेणी | 23.11.21 | विद्यार्थी - व्याख्या | विद्यार्थी - व्याख्या | वी. ए. अर्धिन सहित | 23 |
| 23.10 | कक्षा प्रश्न | / | दूसरी श्रेणी | 24.11.21 | विद्यार्थी - व्याख्या | विद्यार्थी - व्याख्या | वी. ए. अर्धिन सहित | 24 |
| 30.10 | प्राचीन काल | / | दूसरी श्रेणी | 25.11.21 | विद्यार्थी - व्याख्या | विद्यार्थी - व्याख्या | वी. ए. अर्धिन सहित | 25 |
| 31.10 | विद्यार्थी कार्य | प्रथम श्रेणी | दूसरी श्रेणी | 26.11.21 | विद्यार्थी - व्याख्या | विद्यार्थी - व्याख्या | वी. ए. अर्धिन सहित | 26 |
| 30.10 | विद्यार्थी कार्य | दूसरी श्रेणी | दूसरी श्रेणी | 27.11.21 | विद्यार्थी - व्याख्या | विद्यार्थी - व्याख्या | वी. ए. अर्धिन सहित | 27 |
| 30.10 | विद्यार्थी कार्य | दूसरी श्रेणी | दूसरी श्रेणी | 28.11.21 | विद्यार्थी - व्याख्या | विद्यार्थी - व्याख्या | वी. ए. अर्धिन सहित | 28 |
| 30.10 | विद्यार्थी कार्य | दूसरी श्रेणी | दूसरी श्रेणी | 29.11.21 | विद्यार्थी - व्याख्या | विद्यार्थी - व्याख्या | वी. ए. अर्धिन सहित | 29 |
| 30.10 | विद्यार्थी कार्य | दूसरी श्रेणी | दूसरी श्रेणी | 30.11.21 | विद्यार्थी - व्याख्या | विद्यार्थी - व्याख्या | वी. ए. अर्धिन सहित | 30 |

प्रथम श्रेणी

दूसरी श्रेणी

Teacher's Signature
Govt. J.P. Verma P.G. Arts
& Commerce College
Bilaspur (C.G.)

Teacher's Signature
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& Commerce College
Bilaspur (C.G.)

Principal

B.Sc. Part-III
Paper-I

RELATIVITY, QUANTUM MECHANICS, ATOMIC MOLECULAR AND NUCLEAR PHYSICS

Unit-1 Reference systems, inertial frames, Galilean invariance propagation of light, Michelson-Morley experiment, search for ether. Postulates for the special theory of relativity, Lorentz transformations, length contraction, time dilation, velocity addition, variation of mass with velocity, mass-energy equivalence, particle with zero rest mass.

Unit-2 Origin of the quantum theory : Failure of classical physics to explain the phenomena such as black-body spectrum, photoelectric effect, Compton effect, Wave-particle duality, and uncertainty principle, de Broglie's hypothesis for matter waves, the concept of Phase and group velocities, experimental demonstration of matter waves. Davisson and Germer's experiment. Consequence of de Broglie's concepts, Bohr's complementary Principle, Bohr's correspondence principle, Bohr's atomic model, energies of a particle in a box, wave packets. Consequence of the uncertainty relation, gamma ray microscope, diffraction at a slit

Unit-3 Quantum Mechanics: Schrodinger's equation, Statistical interpretation of wave function, Orthogonality and normalization of wave function, Probability current density, Postulatory basis of quantum mechanics, operators, expectation values, Ehrenfest's theorem, transition probabilities, applications to particle in a one and three dimensional boxes, harmonic oscillator in one dimension, reflection at a step potential, transmission across a potential barrier.

Unit-4 Spectra of hydrogen, deuterium and alkali atoms spectral terms, doublet fine structure, screening constants for alkali spectra for s, p, d and f states, selection rules. Discrete set of electronic energies of molecules, quantisation of vibrational and rotational energies, determination of inter-nuclear distance, pure rotational and rotation vibration spectra. Dissociation limit for the ground and other electronic states, transition rules for pure vibration and electronic vibration spectra. Raman effect, Stokes and anti-Stokes lines, complementary character of Raman and infrared spectra, experimental arrangements for Raman spectroscopy.

Unit-5 Structure of nuclei:- Basic Properties of Nuclei: (1) Mass, (2) Radii, (3) Charge, (4) Angular Momentum, (5) Spin, (5) Magnetic Moment (μ), (6) Stability and (7) Binding Energy. Nuclear Models:- Liquid Drop Model, Mass formula, Shell Model, Types of Nuclear reactions, laws of conservation, Q-value of reactions, Interaction of Energetic particles with matter, Ionization chamber, GM Counter, Cloud Chambers, Fundamental Interactions, Classification of Elementary Particles, Particles and Antiparticles, Baryons, Hyperons, Leptons, and Mesons, Elementary Particle Quantum Numbers: Baryon Number, Lepton Number, Strangeness, Electric Charge, Hypercharge and Isospin, introductory idea of discovery of Higg's Boson.

B.Sc. Part-III
Paper-II

SOLID STATE PHYSICS, SOLID STATE DEVICES AND ELECTRONICS

Unit-1 Amorphous and crystalline solids, Elements of symmetry, seven crystal system, Cubic lattices, Crystal planes, Miller indices, Laue's equation for X-ray diffraction, Bragg's Law, Bonding in solids, classification, Cohesive energy of solid, Madelung constant, evaluation of Parameters, Specific heat of solids, classical theory (Dulong-Petit's law), Einstein and Debye theories, Vibrational modes of one dimensional monoatomic lattice, Dispersion relation, Brillouin Zone.

Unit-2 Free electron model of a metal, Solution of one dimensional Schrodinger equation in a constant potential, Density of states, Fermi Energy, Energy bands in a solid (Kronig-Penny model without mathematical details), Difference between Metals, Insulator and Semiconductors, Hall effect, Dia, Para and Ferromagnetism, Langevin's theory of dia and para-magnetism, Curie- Weiss's Law. Qualitative description of Ferromagnetism (Magnetic domains), B-H curve and Hysteresis loss.

Unit-3 Intrinsic and extrinsic semi conductors, Concept of Fermi level, Generation and recombination of electron hole pairs in semiconductors, Mobility of electrons and holes, drift and diffusion currents, p-n junction diode, depletion width and potential barrier, junction capacitance, I-V characteristics, Tunnel diode, Zener diode, Light emitting diode, solar cell, Bipolar transistors, pnp and npn transistors, characteristics of transistors, different configurations, current amplification factor, FET and MOSFET Characteristics.

Unit-4 Half and full wave rectifier, rectifier efficiency ripple factor, Bridge rectifier, Filters, Inductor filter, L and π section filters, Zener diode, regulated power supply using zener diode, Applications of transistors, Bipolar Transistor as amplifier, h-parameter, h-parameter equivalent circuit, Transistor as power amplifier, Transistor as oscillator, principle of an oscillator and Barkhausen's condition, requirements of an oscillator, Wein-Bridge oscillator and Hartley oscillator.

Unit-5 Digital Circuits: Difference between Analog and Digital Circuits, Binary Numbers, Decimal to Binary and Binary to Decimal Conversion, AND, OR and NOT Gates (Realization using Diodes and Transistor), NAND and NOR Gates as Universal Gates, XOR and XNOR Gate, De Morgan's Theorems, Boolean Laws, Simplification of Logic Circuit using Boolean Algebra, Digital to Analog Converter, Analog to Digital Converter.

| Date | Topic | Sub-Topic | Key Concepts | Applications |
|----------|---------|------------|--|--------------|
| 8-11-21 | Hol'd-7 | 13. Sec. 2 | Simple Harmonic Motion, Diff. eqn and Solution | |
| 21-11-21 | Hol'd-7 | | Harmonic Oscillation, B.H. eqn and Solution | |
| 3-12-21 | Hol'd-7 | | Dependent Variable | |
| 9-11 | Hol'd-7 | | \vec{r} , \vec{E} and Pot. Energy, Spring-Mass system | |
| 11-10-11 | Hol'd-7 | | Simple and Compound pendulum, horizontal plane, vertical plane | |
| 11-11-11 | Hol'd-7 | | Planck's law | |
| 12-11-11 | Hol'd-7 | | Maxwell's formulae | |
| 15-11-11 | Hol'd-7 | | R.M.S. Mean value | |
| 14-11 | Hol'd-7 | | Transp. phenomena | |
| 15-11 | Hol'd-7 | | Max. free path, diff. dependence on behaviour graph | |
| 16-11 | Hol'd-7 | | The virial eqn | |
| 17-11 | Hol'd-7 | | Anders experiment | |
| 18-11 | Hol'd-7 | | Probability & statistics | |
| 19-11 | Hol'd-7 | | Maxwell's eqn | |
| 20-11 | Hol'd-7 | | Maxwell's eqn | |
| 21-11 | Hol'd-7 | | Maxwell's eqn | |
| 22-11 | Hol'd-7 | | Maxwell's eqn | |
| 23-11 | Hol'd-7 | | Maxwell's eqn | |
| 24-11 | Hol'd-7 | | Maxwell's eqn | |
| 25-11 | Hol'd-7 | | Maxwell's eqn | |
| 26-11 | Hol'd-7 | | Maxwell's eqn | |
| 27-11 | Hol'd-7 | | Maxwell's eqn | |
| 28-11 | Hol'd-7 | | Maxwell's eqn | |
| 29-11 | Hol'd-7 | | Maxwell's eqn | |
| 30-11 | Hol'd-7 | | Maxwell's eqn | |

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Principal
Govt. J.P. Verma P.G. Arts
& Commerce College
Bilaspur (C.G.)

| Date | B. Sc. I | B. Sc. II | B. Sc. III |
|----------------|--|--------------------------------------|---|
| 01-12-21 | Elastic limit, Hooke's law, Modulus of rigidity | Bro diameter | B. Sc. III |
| 01-12 | Poisson's Ratio, Shear Modulus | Base diameter | Basic properties of matter: M, E, q, L, S, K |
| 03-12 | Relation between elastic constants | M-B stability | Birch's theory and stability |
| 04-12 | Twisting couple of hollow, solid cylinder | B-E stability | Liquid drop model, Marangoni formula |
| 05-12 | Sunday | | Shell model, its consequences |
| 06-12 | Bending Moment, EBM & IEM | Fermi Dirac | Nuclear reactions - involve light components |
| 07-12 | Cartesian - load at ends & middle | Limits of B, B-E stability | Interaction of particles with matter |
| 08-12 | Young's modulus, Poiseuille's equation | FD Spnt. - M, M | Excitation of particles, spin center |
| 09-12 | Equation of continuity, Euler equations | Spread of Time | Cloud chamber, fundamental interactions |
| 10-12 | Bernoulli's theorem, viscosity, fluids | Spread of log | Classification of elementary particles |
| 11-12 | Stream line, turbulence, G.C.P. viscosity | | Baryon, Hyperon, Lepton, Meson |
| 12-12 | Sunday | | |
| 13-12 | CL | CL | CL |
| 14-12 | Stress, Strain, Tension, Angle of contact with g. | Energy density, no ripples and quant | Bohron, W. Lepton no. Strangeness, Hypercharge, Isospin |
| 15-12 | Repeating integrals, Double Triple integrals | Smooth, wave-like | Higgs Bosons and neutrinos |
| 16-12 | Gradient and divergence of vector | Infra red | Amorphous crystalline solids, Elements of symmetry |
| 17-12 | Curly vector, line, surface, volume integral, flux | | Scatter crystal systems, cubic lattices, crystal field |
| 18-12 | Holiday | | |
| 19-12 | Sunday | | |
| 20-12 | Gauss-Div. theorem | Reflection, refraction | Millen index, Lorentz, Poincaré's law |
| 21-12 | State's theorem and Gauss's theorem | Acoustic Impedance | Cohesive energy, Madelung constant, Bohr's |
| 22-12 | Idea of current flow, Numericals | Perturbative Approach | Evolution of Positronium - examples |
| 23-12 to 26-12 | winter vacation | | |
| 27-12 | Kirchoff's laws - examples | Empirical methods | Spontaneous Solitons - Dulong Petit's law |
| 28-12 | Cond. voltage & cond. current sources - examples | Numericals | Einstein's theory of specific heat |
| 29-12 | Thomson's theorem, Norton's theorem | Diff. Equations | Dulong's theory of specific heat |
| 30-12 | Superposition theorem, Reciprocity theorem | Numericals | One dimensional mechanical lattice vibration |
| 31-12 | Maximum power transfer theorem, Numericals | Discussion and etc. | Dispersion relation, Brillouin's zone |

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8. Wave

Part I

Part II

Part III

| | | | | |
|------------|---|--|--------------------------------------|--|
| 01-01-2022 | Conductivity vector, E field along z axis | Formal's Principle of | extreme path | Free electron model of metal - Sommerfeld (S-eg's) |
| 02-01 | Sun Day | | | |
| 03-01 | Dipole and quadrupole fields | Aplanatic points | point of optical system | Density of states, Fermi energy |
| 04-01 | work done on charge as line integral - Examples | Thick lens and its | foveal length | Band theory - Kronig Penney model |
| 05-01 | Conservative nature, E field, $\oint E \cdot dl = V$ | Sensitivity of thin lens | equivalent focal length | metal, semiconductor, insulator, Hall effect |
| 06-01 | Torque on dipole, Energy gradient $\nabla \phi$ field | Telephoto lens, ϕ ray | Telescopic combination | Laplace's theory of disintegration |
| 07-01 | Gauss's theorem - Derivation | spherical mirror, ϕ | chromatic aberration | Laplace's theory of polymerization |
| 08-01 | E field to line charge, charged cylindrical conductor | | Schottky correction plate | Curie Weiss law - Fermi-Dirac statistics |
| 09-01 | Sun Day | | | |
| 10-01 | E field to infinite sheet's parallel sheets of charge | aplanatic points, oil lens | objective, microscope lens | Magnetic domains (Fermi-Dirac) |
| 11-01 | Apertures - Parallel plate, spherical, cylindrical | Entrance exit pupil, multiple | Ray, Rayleigh's criterion | Hysteresis loss - B-H curve |
| 12-01 | Reflexivity, Free per unit area on surface | Huygen's eye piece - | numerical applications | Intrinsic Extrinsic semiconductor, Fermi level |
| 13-01 | Numericals | Principle of superposition, | Two slit interference | electron-hole pairs, Mobility of holes and electrons |
| 14-01 | Conducting spheres in uniform electric field | Coherence, optical path difference | interference, sustained interference | Drift and diffusion current, PN junctions |
| 15-01 | Dielectric constant, Polarization, dielectric | Thin films - anti | thin layer data fringe | Depletion width and potential barrier |
| 16-01 | Sun Day | | | |
| 17-01 | Holiday | | | |
| 18-01 | Different types of polarisation | Newton's Rings - | Formula derived | Numericals |
| 19-01 | Geosell and dielectric polarisation P | Numericals on | Newton's rings | Inversion capacitance |
| 20-01 | Electric, Polarisation, Displacement D | Michelson's Interferometer, | | I-V characteristics of diode |
| 21-01 | Derivation $D = \epsilon_0 E + P$ | Applications to determine λ , and 2λ | | Zener Diode Tunnel diode LED |
| 22-01 | Dielectric susceptibility and permittivity | Multiple beam interference in parallel film | | silicon cell, Bipolar transistors |
| 23-01 | Sun Day | | | |
| 24-01 | Polarisation and Modulation of Polarisation | Feynman's Law of reflection | | PP and NP N Transistors |
| 25-01 | Local fields - Examples | Rayleigh's Rayleigh's | | Characteristics of transistors in CE, CB, CC mode |
| 26-01 | Refractive index | Refractive index | | repulsive force |
| 27-01 | Clouire Maxwell's equations | | | |
| 28-01 | Derivation of wave equation and solution in N dimensions, Free particle of relativistic, stationary | Tayman-Green interference | interference | Current amplification factor |
| 29-01 | Numericals | Numericals | | FET |
| 30-01 | Numericals | Numericals | | MOSFET |
| 31-01 | Numericals | Numericals | | Presentations on semiconductors |

2022 Jan 10
G. J. P. Verma P. D. K. R. & Commerce College

Principal
G. J. P. Verma P. D. K. R. & Commerce College
Principal (C.G.)

Part I

Part III

| Date | Topic | Reference | Notes |
|----------|--|--------------------------|------------------------|
| 01-02-22 | Use and delay of Circuit in RC-circuit | Diffraction | Results of diffraction |
| 01-02-22 | Use and delay of Circuit in RL-circuit | Hardy | Results of diffraction |
| 03-02 | AC circuit and resonance AC circuit, capacitor impedance | Interference | Results of diffraction |
| 04-02 | Series and parallel resonance, Impedance for AC circuit | Zare | Results of diffraction |
| 05-02 | Resonance in LC-circuit, R, L, C, RC-circuit | Diffraction | Results of diffraction |
| 06-02 | Sunday | Fourier | Results of diffraction |
| 07-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Fourier | Results of diffraction |
| 08-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Fourier | Results of diffraction |
| 09-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Plane wave | Results of diffraction |
| 10-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Ap. # part | Results of diffraction |
| 11-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Production of | Results of diffraction |
| 12-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Huygens's theory | Results of diffraction |
| 13-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Reflection on film | Results of diffraction |
| 14-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Analysis of optical axis | Results of diffraction |
| 15-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Bi-quanta | Results of diffraction |
| 16-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Numericals | Results of diffraction |
| 17-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Discussion on | Results of diffraction |
| 18-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Basic principle of | Results of diffraction |
| 19-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Coherence theory | Results of diffraction |
| 20-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Coherence theory | Results of diffraction |
| 21-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Coherence theory | Results of diffraction |
| 22-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Coherence theory | Results of diffraction |
| 23-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Coherence theory | Results of diffraction |
| 24-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Coherence theory | Results of diffraction |
| 25-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Coherence theory | Results of diffraction |
| 26-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Coherence theory | Results of diffraction |
| 27-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Coherence theory | Results of diffraction |
| 28-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Coherence theory | Results of diffraction |
| 29-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Coherence theory | Results of diffraction |
| 30-02 | Maxwell's equations, P, XY, divergence, curl, form in vector | Coherence theory | Results of diffraction |

S. No. _____ Work to be done _____ Date _____

CLASS - PGDCA SESSION 2021-22

PAPER-I

FUNDAMENTALS OF COMPUTER & INFORMATION TECHNOLOGY

UNIT NAME AND TOPICS

| UNIT NAME AND TOPICS | Will be Teach in |
|--|------------------|
| UNIT - I Introduction to Computer and Information Technology. Brief history of development of computer & generations of computer. Computer system characteristics. Capabilities and limitations block diagram of computer. Types of computer-Analog, Hybrid, digital, micro, mini, mainframe, super computer. Personal computer, types of PCs, desktop, laptop, netbook, palmtop etc. Number system Data representation in computers, Number system of computers binary, octal, hexadecimal, representation & their conversion, Coding system ASCII, BCD, EBCDIC etc. | October |
| UNIT - II INPUT/OUTPUT devices: keyboard, mouse, monitor, trackball, joystick, digitizing table, scanner, digital camera, MICR, OCR, OMR, Bar-code reader, Voice recognition, light pen, touch screen, devices, printer, plotter. | October |
| UNIT - III Storage device: Data storage and retrieval methods-sequential, direct and index sequential- various storage devices-magnetic tape, magnetic disks, cartridge tape, data drives hard disk drives, floppy disks, optical disks-CD, VCD, CDR, CDRW, DVD. | November |
| UNIT - IV Computer software: types of software, system software, application software, operating system, utility program, assemblers, compilers and interpreter. Operating system functions, types batch, single user, multi user, multiprocessing, multiprogramming. Programming languages, machine, assembly, high level, 4GL, their merits and demerits. Computer virus -types of virus, virus detection & prevention virus on network. | November |
| UNIT - V Data Communication & networks: analog and digital signals, modulations, amplitude modulation (am), frequency modulation (fm), phase modulation (pm), communication process, direction of transmission flow, simplex, half duplex, full duplex. Types of network LAN, WAN, MAN etc. Topologies of LAN ring, bus star, mesh and tree topologies, communication protocols TCP/IP protocol suit, Communication channels media twisted, coaxial fiber optic, serial and parallel communication, Network operating system (NOS), bridges, hubs, routers, repeater and gateways. Modem working and characteristics. Types of connections: dialup leased lines, ISDN, Broadband. | December |

| Date | Work done | Sign/Remark |
|------------|--|-------------|
| 8-10-2021 | Introduction class (Syllabus discussion) | Kantol |
| 9-10-2021 | | 10-5-2021 |
| 10-10-2021 | Computer, characteristics of computer | Kantol |
| 10-10-2021 | function of computer, Block diagram of computer. | Kantol |
| 10-10-2021 | number system, number system conversion | Kantol |
| 10-10-2021 | 14, 15 to 19-October Holiday | |
| 10-10-2021 | number system conversion | Kantol |
| 10-10-2021 | Binary arithmetic operations | Kantol |
| 10-10-2021 | Binary arithmetic operations, 2's & 2's complement | Kantol |
| 10-10-2021 | Computer codes BCD, EBCDIC | Kantol |
| 10-10-2021 | ASCII, divide | Kantol |
| 10-10-2021 | Evolution of computers, computer generations | Kantol |
| 10-10-2021 | Computer generations continue | Kantol |
| 10-10-2021 | Computer generations continue | Kantol |
| 10-10-2021 | Types of computers | Kantol |
| 10-10-2021 | Types of computers continue | Kantol |
| 10-10-2021 | Unit one Revision | Kantol |

Month: October 2021

Class: PGDCA
Paper: PAPER-I

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& Commerce College
Bilaspur (C.G.)

Convenor

Faculty In-charge

Head

Teacher's Sign.

| S.No. | Work to be done | Date | Work done | Sign/Remark |
|-------|-----------------|------------|---|---------------------------------|
| | | 02-11-2021 | work on headline comic text & delete compl. isdkh <u>from 03 Nov to 04 Nov - Divest vacation</u> | Kantol <u>1-November</u> |
| | | 08-11-2021 | Revision of previous topics | Kantol |
| | | 09-11-2021 | about devices, keyboard, point & draw devices | Kantol |
| | | 11-11-2021 | no class due to condolence | Kantol <u>10-Nov Holiday</u> |
| | | 12-11-2021 | Intercollege Debate competition | Kantol |
| | | 13-11-2021 | Joy stick, Touch screen, Light pen, One one pen | Kantol |
| | | 15-11-2021 | BCL, MISC, mic, disk cover, Printer, electronic | Kantol |
| | | 16-11-2021 | output devices, monitor, printer impact printer | Kantol |
| | | 17-11-2021 | non impact printer, daisy wheel, plotter | Kantol |
| | | 20-11-2021 | Memory storage devices | Kantol <u>18-CL</u> |
| | | 22-11-2021 | Access method, magnetic Tape | Kantol <u>19-Holiday</u> |
| | | 23-11-2021 | magnetic Tape, magnetic disk | Kantol <u>21-Holiday</u> |
| | | 24-11-2021 | magnetic disk Tward disk | Kantol |
| | | 25-11-2021 | optical disk & other memory devices | Kantol |
| | | 26-11-2021 | Software, system software, Application | Kantol |
| | | 29-11-2021 | operating system | Kantol |
| | | 29-11-2021 | function of operating system | Kantol <u>28-Holiday</u> |
| | | 30-11-2021 | Types of operating system, program's laws | Kantol |

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S.No. Work to be done

CLASS - PGDCA SESSION 2021-22

PAPER-II
PC PACKAGES & COMPUTERISED ACCOUNTING SYSTEM
UNIT NAME AND TOPICS

| UNIT - I | Will be Teach in |
|--|------------------|
| UNIT - I Fundamental of DOS & Windows. Fundamental of DOS booting process, internal and external commands, creating and executing batch files and directories creating text file, introduction to windows features, various versions of windows, origin of windows parts of windows screen types and anatomy of windows using | October |
| UNIT - II Introduction to word processing (MS-Word): Advantages of word processing, editing a file using paragraphs, bullets, indentation, etc. Formatting features, printing the documents, it includes paper-size, margins, header and footer, page no., using macros. Advance word processing, header and footers. Finding text, mail merge and other application, mathematical calculations, table handling. | October |
| UNIT - III Introduction to spread sheet (MS-Excel): Definition and advantages of electronic worksheet, working of spread sheet, range and related operations. Setting, saving and retrieving work sheet file, inserting deleting copying & moving of data cells, inserting and deleting rows & columns, protecting cell printing a worksheet, creating a worksheet, graphs, creation, types of graphs creating a chart sheet 3D column charts, moving and changing the size of chart, printing the chart. | November |
| UNIT - IV Introduction to Powerpoint (MS- Powerpoint): Creating a presentation, inserting/deleting slides, different slide views, editing slides, Slide Transition & editing special effects inserting sound, picture, chart, organization chart. | November |
| UNIT - V Accounting software Tally ERP 9: Basic principles of double entry accounting system, creating new company security controls, groups, ledger, voucher type, modifying, new company, voucher entry, generating profit & loss account, trial balance and balance sheet, backup & restore | December |

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Date Work done Sign/Remark

| | | |
|-----------|---|--------|
| 5-01-2022 | MS-DOS, Booting process, Commands | Kantil |
| 6-01-2022 | Internal commands | Kantil |
| 1-01-2022 | External commands and Batch file execution | Kantil |
| 5-01-2022 | external commands, window menus, features & screens | Kantil |
| 5-01-2022 | word processing & Home tab | Kantil |
| 01-2022 | ND - class due to meeting in university. | Kantil |
| 01-2022 | ND - class due to | Kantil |
| 01-2022 | Home tab, & insert tab | Kantil |
| 01-2022 | chart, header footer, Hyperlink, macros etc | Kantil |
| 01-2022 | mail merge, macro, printing process | Kantil |
| 01-2022 | MS-Excel, worksheet, cell, workbook, formula | Kantil |
| 01-2022 | chart, print, note chart, got filter | Kantil |
| 4-01-2022 | MS-power point, creating presentation | Kantil |
| | slide transition, slide show, | Kantil |
| | chart handling, picture insert into | Kantil |
| | presentation, audio and video | Kantil |
| | insertion in presentation Types | Kantil |
| | & slide views | Kantil |
| 01-2022 | Accounting entries types of Accounts | Kantil |
| 01-2022 | Accounting Terminology types of vouchers | Kantil |
| 01-2022 | ledger entry, create company ledger | Kantil |
| 01-2022 | creation, entry through voucher | Kantil |
| 01-2022 | Generating trial balance, profit & | Kantil |
| 01-2022 | loss Account and Balance | Kantil |
| 01-2022 | sheet in Tally, Backup and | Kantil |
| 01-2022 | restore process in Tally | Kantil |
| 01-2022 | Tally services, ledger entry company | Kantil |
| 01-2022 | creation, voucher type, voucher entry | Kantil |
| 01-2022 | P&L A/c, Balance sheet generation | Kantil |
| 01-2022 | Network operating system, Backup | Kantil |
| 01-2022 | connection leased line, ISDN connection | Kantil |

Faculty In-charge
Kantil
Teacher's Sign.

GOVT. J.P. VERMA P.G. ARTS AND COMMERCE COLLEGE, BILASPUR (C.G.)

S.No. Work to be done Date

CLASS - PGDCA SESSION 2021-22

PAPER-III
DATA COMMUNICATION & COMPUTER NETWORK
UNIT NAME AND TOPICS

| | | |
|---|------------------|----------|
| UNIT - I Introduction to Data Communication- Network model, protocols and architecture, standards, organizations, line configuration, topology, transmission mode, classification of networks, OSI reference model, TCP/IP model. | Will be Teach in | October |
| UNIT - II Analog and digital signals, Data encoding, parallel and serial transmission, modems, transmission media, Guided media, unguided media, transmission impairment, performance, Synchronous and asynchronous transmission. | | October |
| UNIT - III Multiplexing, LLC, error detection and correction, flow control, HDLC, LANs- applications, architecture, Ethernet, 802.3 LANs, token ring, FDDI, IEEE 802.5, circuit switching, packet switching, message switching, connection oriented and connectionless services. | | November |
| UNIT - IV Principles of internetworking- connection-oriented, connectionless, Routing concepts, routing algorithms- distance-vector routing, link state routing, shortest path routing, Congestion control, QOS, internetworking, network devices. | | November |
| UNIT - V Network security requirements and attacks, public key and private key encryption and digital signatures, digital certificate, Firewall, IDS (Intrusion Detection System) | | December |

Month: October 2021

Class: PGDCA
Paper: Paper-III

| Date | Work done | Sign/Remark |
|------------|---|---------------------|
| 21/10/2021 | Subject Discussion | Faculty |
| 10/20/21 | Study Communication | Faculty |
| 10/20/21 | Line Configuration, Transmission mode | Faculty |
| 10/20/21 | Topology, mesh, star | Faculty |
| 10/20/21 | 24-18 October Holiday | |
| 10/20/21 | Topology Tree, Bus | Faculty |
| 10/20/21 | Topology Ring, Hybrid | Faculty 19-10/20/21 |
| 10/20/21 | Category of Network LAN, MAN, WAN, Internat | Faculty |
| 10/20/21 | OSI model | Faculty |
| 10/20/21 | OSI model working | Faculty |
| 10/20/21 | functions of the layers physical | Faculty 24-10/20/21 |
| 10/20/21 | functions of the layers network & transport | Faculty |
| 10/20/21 | functions of the layers session, presentation | Faculty |
| 10/20/21 | ICP, IP, P, Protocol model | Faculty |
| 10/20/21 | TCP & IP protocol model compare | Faculty |

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Month : October

Class : PhD/A

Work to be done

CLASS- PGDCA SESSION 2021-22

PAPER-V
PROGRAMMING IN C & C++

UNIT NAME AND TOPICS

| UNIT NAME AND TOPICS | Date |
|---|--|
| UNIT - I Introduction to C++ Language: Fundamentals, simple I/O statements, reading and writing, data types constants, variable operators & expressions, library function, control statements, if-else, while, do-while, goto, for statements, switch, break, looping statements, functions recursion, arrays, multidimensional arrays, strings & pointers. | 28-8-2021 29-10-2021 1-10-2021 2-10-2021 3-10-2021 |
| UNIT - II Programming in C++, functions, class, object, constructor and destructor. Call by reference, call by value, return by reference, inline function, constant argument, function overloading, static member function, static data member, Classes: implementing class, classes and members, accessing class members, implementing class methods, array of object, friend function, Constructor & destructors, parameterized constructor, multiple constructor, constructor with default argument, copy constructor, destructor. | 8-10-2021 9-10-2021 10-10-2021 11-10-2021 12-10-2021 13-10-2021 14-10-2021 15-10-2021 16-10-2021 17-10-2021 |
| UNIT - III Operator overloading & type casting: Operator overloading, unary operator overloading, binary operator overloading, manipulates string using operator overloading, type conversions: basic to class, class to basic, class to class. | 18-10-2021 19-10-2021 20-10-2021 |
| UNIT - IV Inheritance, virtual functions: single inheritance, multilevel inheritance, multiple inheritance, hybrid inheritance, hierarchical inheritance, virtual base class, abstract class. | |
| UNIT - V Pointer & File: Pointer to object, this pointer, virtual function and pure virtual function, File: opening and close file, detecting end of the file. | Fe |

Date

Paper : Paper V

Work done

Remark

Syllabus Discussion

100%

C Language, Variable, constant, keywords

Pass

Data types, C-programme.

Pass

operators, Arithmetic, Relational, logical

Pass

14 to 17 October Holiday

Pass

operators, unary operator, Assignment op.

Pass

Bitwise operators

Pass

Termy operator, sized operator, statement

Pass

Decision making statement

Pass

Switch case (selection statement)

Pass

Looping statement, for loop

Pass

while loop, do while loop

Pass

Nesting of loop, jump statement

Pass

Function, user function

Pass

Recursion, call by value, call by reference

Pass

Array

Pass

Principal
Prof. J.P. Verma P.G. Arts
& Computer College,
Chandigarh (C.A.)

Convener Academic Audit Committee

Faculty In-charge

Head

Teacher's Sign.